THE INFLUENCE OF SOCIAL MEDIA ON HUMAN RELATIONSHIPS AND MATING PATTERNS: A QUALITATIVE META-SYNTHESIS STUDY

by

Adrienne Loth

Copyright 2022

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

PhD in Clinical Sexology

Modern Sex Therapy Institutes

The Dissertation Committee for Adrienne Loth certifies the Approval of the following

Dissertation:

THE INFLUENCE OF SOCIAL MEDIA ON HUMAN RELATIONSHIPS AND MATING PATTERNS: A QUALITATIVE META-SYNTHESIS STUDY

Committee:

Chair:

Rachael Needle, PsyD

Member:

Richard Seigel, PhD

Date Approved: _____

ABSTRACT

Despite its benefits, social media is associated with a variety of risks and can be harmful to interpersonal relationships. The purpose of this study was to explore how social media influences human relationships and mating patterns. Using a qualitative methodology and meta-synthesis design, the researcher located, analyzed, and synthesized the results of 13 previously conducted studies on this topic. The following themes were identified in response to the research question: (a) use of social media may facilitate conflict between romantic partners, (b) romantic partners who spend more time on social media have limited time to invest in their relationship, (c) use of social media strengthens relationships with family and friends, and (d) use of social media may facilitate the formation and preservation of casual connections. The findings contribute to the understanding of how social media may lead to conflicts among couples in the community, which may inform the development of interventions to prevent family breakups.

DEDICATION

I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, Pamela Jo Ellis, Ira Shuman, and Janet Shuman whose words of warm encouragement and push for tenacity are always in my mind. Thank you to my sisters for inspiring me with their drive to continue learning and exhibiting examples of such profound work ethic. My warm and heartfelt thanks go to my dear friends for their tremendous support, strength and inspiration. My friends, Dr. Joshua Mirmelli, Dr. Joshua Lichtman, Amaryllis Knight, Jennifer Casey, David Richey, and Jessica Johnson, deserve my thanks for providing me with confidence and valuable suggestions while completing this study. Finally, I would like to thank my colleagues from the Institute. I appreciate our early mornings and long supervision meetings deep in my heart.

ACKNOWLEDGMENTS

I would like to thank my esteemed supervisor and chair - Dr. Rachel Needle for her invaluable guidance, support and tutelage during the course of my PhD degree. Additionally, I would like to express gratitude to Dr. Richard Seigel for his treasured insight, which was very influential in shaping my process. I would like to offer special thanks to Jorid Ngyard and Esther Perel for modeling and inspiring my work in the field.

Table of Contents

ABSTRACTiii
DEDICATIONiv
ACKNOWLEDGMENTSv
LIST OF TABLESviii
LIST OF FIGURESix
CHAPTER I: INTRODUCTION1
Research Problem
Need for the Research
Nominal Definitions4
Context4
Summary6

CHAPTER II: LITERATURE REVIEW	7
Theoretical Framework	7
Related Literature	9
Conclusion	40
CHAPTER III: METHODS	43
Design	43
Sample	44
Analysis	44
Validity	46
Methodological Assumptions	47
Summary	47
CHAPTER IV: RESULTS	48
Introduction	48
Data Collection	48
Participating Studies	50
Data Analysis	59
Evidence of Trustworthiness	61
Findings	63
Summary	73
CHAPTER V: INTERPRETATIONS, RECOMMENDATIONS, AND CONCLUSION	75
Introduction	75
Interpretation of the Findings	76
Limitations of the Study	83
Recommendations	83

Implicati	ions	.84
Conclusi	ion	.85
REFERENC	CES	.87

LIST OF TABLES

Table 1	
Table 2	
Table 3	

LIST OF FIGURES

Figure 1. PRISMA flow diagram	
	-

CHAPTER I: INTRODUCTION

Social media platforms are becoming increasingly popular (Andreassen, Pallesen, & Griffiths, 2017; Petrychyn, Parry, & Johnson, 2020; Timmermans & Courtois, 2018; Winter, O'Neill, Cook, Rose, & Hood, 2020). Globally, there were 3.96 billion people actively using social media in 2020, which increased by 10.9% year over year from 3.48 billion in 2019 (Dean, 2021). Facebook is the most used social media site. The lowest social media users spend between 1 and 7 hours per week, moderate users spend 8 to 17 hours, and high daily usage is over 18 hours (Schmidt, Muench, Schneider, Breitenbach, & Carolus, 2018).

Unfortunately, social media is associated with a variety of risks and can be harmful to human or interpersonal relationships (Berry, Emsley, Lobban, & Bucci, 2018; Helm, Ven, & Welser, 2020; Lee, 2020; McDaniel, Drouin, & Cravens, 2017; Okdie & Ewoldsen, 2018; Wilson, Janoskova, Majerova, & Musová, 2020). Chotpitayasunondh and Douglas (2016) explained the phenomenon of *phubbing*, which is considered a rude behavior among social media users. Phubbing is the act of snubbing an individual in a social setting by concentrating on one's phone instead of talking to the person directly (Chotpitayasunondh & Douglas, 2016). Okdie and Ewoldsen (2018) suggested that social media is affecting how people interact with each other offline. Berry et al. (2018) found that misusing social media sites could result in social isolation, infidelity, addiction, reduced social cohesion, divorce, and lack of trust in relationships. Lee (2020) reported that interactions with online friends on social media sites have negative effects on individuals' daily life, such as increased Internet addiction and reducing the function of offline relationships. McDaniel et al. (2017) suggested that the empirical evidence concerning social media infidelity-related behaviors and marital relationships is limited. Whyte and Torgler (2017) highlighted the need for an understanding of how the Internet or social media is impacting human mating patterns and the psychology behind the wider social science of human behavior in large-scale decision settings. Importantly, a review of the literature revealed that few researchers have aimed to understand how social media is influencing human relationships and mating patterns. In response to addressing these gaps, the current researcher aimed to explore how social media is influencing human relationships and mating patterns using a qualitative meta-synthesis design. Chapter I contains an introduction to this study. The researcher presents the research problem, the need for the research, the nominal definitions, and the context of the study. The researcher concludes the chapter with a summary.

Research Problem

The problem addressed through this study was that it was unclear how social media is influencing human relationships and mating patterns. Social media can negatively impact romantic relationships, family life, and the mental health of couples (Berry et al., 2018; Lee, 2020; McDaniel et al., 2017; Okdie & Ewoldsen, 2018). In 2020, there were 3.96 billion people actively using social media—a 92.76% increase from the 2.07 billion global users in 2015, just 5 years previously (Dean, 2021). The general problem was that the public are not fully aware of the negative impact and consequences of using social media for romantic relationships (Fansher & Eckinger, 2020). The specific problem was that it remains unclear how social media is influencing human relationships and mating patterns (Fansher & Eckinger, 2020; PitchoPrelorentzos, Heckel, & Ring, 2020; Whyte & Torgler, 2017). Correspondingly, the overarching research question that guided this qualitative meta-synthesis study was:

RQ1. How is social media influencing human relationships and mating patterns? Need for the Research

There is evidence suggesting that social media are potentially harmful to interpersonal relationships among couples and their family life (Berry et al., 2018; Lee, 2020; McDaniel et al., 2017; Okdie & Ewoldsen, 2018). The findings of this study could advance knowledge and contribute to the scholarship by filling the identified gap in research. McDaniel et al. (2017) suggested that the empirical evidence concerning social media infidelity-related behaviors and marital relationships is limited. Whyte and Torgler (2017) highlighted the need for an understanding of how the Internet and/or social media are impacting human mating patterns and the psychology behind the wider social science of human behavior in large-scale decision settings. Importantly, few researchers have aimed to how social media is influencing human relationships and mating patterns. In response to addressing these gaps, the current researcher aimed to explore this phenomenon using a qualitative meta-synthesis design. The findings of the study could be interesting to the researchers and scholars in the fields of relationship studies, human behavior, social and psychosocial science, and social networking.

Through this study, the researcher sought to develop practical implications and promote positive social change. Pitcho-Prelorentzos et al. (2020) suggested furthering research efforts in the psychological science behind social media users might assist health care professionals treat individuals searching to find a partner, specifically in directing the therapeutic sessions to rebuild shattered assumptions. Therefore, the findings of this study could benefit social media users, the

individuals who may search to find a partner through social media platforms, and healthcare professionals. The improvement in the physical and psychological well-being of the individuals could ultimately benefit their communities and promote positive social change.

Nominal Definitions

In this section, the researcher presents a list of key terms with their respective definitions pertaining to this study in this section. The specific definitions of these terms are anticipated to help readers better comprehend this study. The terms are listed in alphabetical order.

Human relationship: The concept of human relationship or interpersonal relationship involves social associations, connections, or affiliations between two or more people (Sebro, Peloso, Dupuis, & Risch, 2017).

Mating pattern: Mating behavior includes mate choice, intrasexual competition for mates, and parental care (Moura & Gonzaga, 2017).

Social media: This refers to any digital tool that allows users to quickly create and share content with the public, encompassing a wide range of websites and apps (Andreassen et al., 2017).

Context

Social media has become increasingly popular for leisure activities (Andreassen et al., 2017). Sexual function is an important predictor of well-being (Winter et al., 2020). Using social media for communication among couples and for relationship development can result in a variety of risks, which can be potentially harmful to romantic relationships, family life, and the mental health of couples (Berry et al., 2018; Lee, 2020; McDaniel et al., 2017; Okdie & Ewoldsen, 2018). McDaniel et al. (2017) examined whether married or cohabiting individuals were using

social media sites to engage in online infidelity-related behaviors and to what extent this related to relationship satisfaction, ambivalence, and relational attachment characteristics with a sample of 338 married or cohabiting individuals from 176 families. Their findings revealed that more engagement in infidelity-related behaviors on social media was significantly related to lower relationship satisfaction, higher relationship ambivalence, and greater attachment avoidance and anxiety in both women and men.

Andreassen et al. (2017) examined the associations between addictive use of social media, narcissism, and self-esteem, and demonstrated lower age, being a woman, not being in a relationship, being a student, lower education, lower income, lower self-esteem, and narcissism were associated with higher addictive use of social media. McDaniel et al. (2017) indicated that attachment anxiety and gender interacted with relationship satisfaction and predicted online infidelity-related behaviors.

Both social and biological forces influence human behavior, including highly specialized media and communication behaviors (York, 2017). York used a behavior genetics framework and collected twin study data from the 2013 Midlife in the United States (MIDUS III) survey to examine how both environmental and genetic factors contributed to social media use. The results demonstrated social media use was partially motivated by underlying genetic traits. Chukwuere and Chukwuere (2017) assessed the impact of social media on female students' social lifestyle, finding that social media refined how these students thought, interacted, communicated, and fell in love.

Summary

Chapter I was an introduction to the current study. The researcher presented an introduction of the study, the research problem, the need for the research, the nominal definitions, and the context of the study. The problem that inspired this study was that it is unclear how social media is influencing human relationships and mating patterns. The overarching research question guided this qualitative meta-synthesis study was: How is social media influencing human relationships and mating patterns? The findings of this study could advance knowledge and contribute to the scholarship as it attempts to fill the gap in research. The findings of the study could be of interest to researchers and practitioners in the fields of relationship studies, human behavior, social and psychosocial science, and social networking. This study contains practical implications that can promote positive social change and benefit social media users, individuals searching for partners through social media platforms, and healthcare professionals. The improvement in the physical and psychological well-being of these individuals could ultimately benefit their communities and greater society.

CHAPTER II: LITERATURE REVIEW

In this chapter, the researcher provides an overview of previous studies on the impact of social media use on relationships. The researcher introduces the framework which guides and presents the main focus of the research described in the thesis. It is important to set the context of the literature review by explaining the main purpose of the study, reviewing previous knowledge on the research topic, and defining the scope of work presented in the chapter. The search strategy adopted in this chapter is in line with the current practices in grounded research work. Researchers are required to first familiarize themselves with existing studies through extensive literature reviews before collecting primary data for their studies. A manual and electronic literature search was conducted to identify available literature on the impact of social media on relationships. The search was done using several electronic databases, including ScienceDirect, PubMed, Cinahl, PEDro, and Google Scholar. The searched keywords included *social media, intimate relationship, parent-child relationship, uses and gratifications theory, interpersonal relationships, interpersonal communication, FOMO, and anxiety.*

Theoretical Framework

The theory that informed the current study's understanding of why people use social media and how it impacts their relationships is uses and gratifications theory (Katz, Blumler, & Gurevitch, 1973). This theory examines people's motives in using social media and how it helps them to gratify their needs. Uses and gratifications theory is a psychological communication perspective and argues that people actively look for media that they will satisfy their specific needs (Katz et al., 1973). The theory posits that individuals decide the media to use, which helps

them to achieve maximum gratification for their needs. In summary, uses and gratification theory focus on a person's motives of using a particular media and how the media satisfies them.

As people make decisions on the media to use in their social interactions and attainment of their needs, it is not always guaranteed that they will achieve those needs. The gratifications that are sought are not always the same as those that are obtained. Katz et al. (1973) shared that continued use of a particular media over a given period increases gratifications, thus enhancing the impact of social media on interpersonal relationships (Palmgreen, Wenner, & Rayburn, 1980). Katz et al. (1973) suggested that U&G theory focused on psychological and social needs which developed specific expectations of mass media that resulted in particular patterns of media exposure and resulted in the need for gratification. There are five components of U&G theory (Katz et al., 1973). These components include the audience, linking of gratification and media choice by individuals, completion of media with other gratification sources, the goals of mass media which are derived from the content created by individuals, and suspending of value judgements on mass media.

U&G theory has been largely used in gaining gratifications from radio and TVs. This theory has also been adopted in the study of social media and gratifications from sites such as Facebook (Huang & Zhou, 2018). U&G theory can be applied both to social media and its elements such as gratifications from the use of Facebook, online privacy regulations, different social media apps, and motivations for social media use. The evidence supporting the application of U&G theory in understanding the impact of social media on relationships is that the five primary components identified by Katz et al. (1973) can be applied in understanding social

media use. U&G is referred to as a prosocial theory which identifies the benefits of using different types of media and how it affects one's relationship with other individuals.

Related Literature

Social media. The use of social media is a ubiquitous phenomenon (Elhai, Levine, Dvorak, & Hall, 2016). According to Pittman and Reich (2016), over 90% of adults across the world own a smartphone. Furthermore, 72% of Americans have smartphones and 71% of individuals aged between 13 and 17 years old regularly use Facebook (Elhai et al., 2016). With more than 1.5 billion active users, Facebook is the most used social media site across the world. According to Pittman and Reich (2016), over 900 million users log into Facebook every day. Pittman and Reich (2016) blended these findings to argue that 91% of individuals who own smartphones use different social media sites at least once in a day. Today, people are more connected due to increased access to the Internet. Because of increased interconnectivity, there is a perception that people are happier. According to Sutcliffe, Binder, and Dunbar (2018), participants who did not own smartphones or use social media reported a greater satisfaction in life and psychological health. Social interactions are important in life, as they impact people's offline interpersonal relationships.

In recent years, social media has changed the ways through which people communicate. As earlier stated, Facebook is the most used social media site and has the highest capacity to impact the relationships and emotions of adults (Pittman & Reich, 2016). Hayes, Carr, and Wohn (2016) identified different gratifications that people achieve when using social media. Hayes, Shan, and King (2018a) investigated the motivation behind people sharing their photos on different social media sites such as Facebook. The participants were asked to identify the reasons as to why they share photos online, and the findings of the study revealed four different types of gratifications, which include seeking and showcasing, technological affordances, social connection, and reaching out to other people. Seeking and showcasing gratification involves the need to keep up with other people across the world, while technological affordances allows people to share information with their friends and family members (Pittman & Reich, 2016). Photo sharing on social media sites is driven by individuals' social needs.

Social media interactions provide an opportunity for bridging and bonding social capital. According to Elhai et al. (2016) social capital is the online relationships that are established through virtual interactions. Bridging social capital includes different elements which includes connecting with other people, fostering social inclusion, and generating a wide range of identities. Online relationships create stronger ties and smaller circles of connections that are easy to manage. In addition, Pittman and Reich (2016) found that social media can result in social inclusion or exclusion which in turn affects individuals' relationships. It connects likeminded individuals. Social exclusion occurs where in-group loyalty is high, where individuals think alike without opposing ideas.

Berry et al. (2018) stated that bridging and bonding technique is incorporated within social media to improve benefits of using social media. A well-established social capital increases online influence, but Berry et al. highlighted that people need to be cautious when interacting with others on social media to avoid becoming vulnerable by revealing a lot of their private information. Nisar, Prabhakar, and Strakova (2019) identified four main concerns when sharing private information online: information control, power loss, identity loss, and perceived damage. Social media users should control the amount of information that is sent out to the public. According to Nisar et al., sharing of personal information with others can help them gain some degree of power over themselves, resulting in power loss. These privacy behaviors determine how users interact with each other on social media sites. Online behaviors affect the relationships that are formed both online and offline.

Technology and social media use. With increased access to the Internet, mobile technology has become an important part of the U.S. population. According to Pew Internet and American Life Project data, 92% of the U.S. adult population have access to mobile phones and 67% of this population use social media (Orben & Dunbar, 2017). A majority of the people have their phones always on and use it wherever they go, even while at their workplaces. An increase in smartphone owners has increased the number of special media users. SNS include sites such as Facebook, YouTube, Instagram, and Tumblr. According to Holte and Ferraro (2020), SNS use has increased in the last decade. The number of SNS users has grown from 7% in 2005 to 65% in 2019 (Holte & Ferraro, 2020). More young adults between 18 and 29 years use social media as compared to adults between 30 and 49 years. Orben and Dunbar (2017) suggested that increased use of mobile phones reduces offline interactions. The quality of connections and interactions is reduced making it difficult for people to initiate new relationships. Individuals who are addicted to social media use their phones even during face-to-face interactions, thus reducing the quality of conversations.

Thomas, Orme, and Kerrigan (2020) found that when couples are interrupted during their conversations by technology use, it causes conflicts between them. Social media addiction can cause these interruptions as individuals want to maintain their connection to online communities. Overuse of mobile phones diminishes feelings of closeness in intimate relationships. Extensive

use of social media for communication and interactions with online communities has been linked to reduced offline communication and increased depression. Regardless of the positive side of social media on intimate relationships, Elhai et al. (2016) identified that some partners are under pressure to use sites such as Instagram and Facebook to maintain their relationship.

Benefits of social media. With increased access to social media across the world, there is more evidence that social media provides better experiences which results in positive results for users. The benefits that social media provides to users explain why the use of social media sites continues to grow. According to Uhls, Ellison, and Subrahmanyam (2017), the biggest reason why people use social media is to stay connected to their friends and families. Odoom, Anning-Dorson, and Acheampong (2017) argued that through social media individuals keep in touch and maintain their relationships with those living in distant places and do not have frequent communication. Uhls et al. (2017) added that social media users connect and reconnect with other people, which indicates an overlap between active social media users and those who are offline. Odoom et al. (2017), however, suggested that the overlap between online and offline users was imperfect, as the patterns showed that most active users utilized different online contexts to manage their offline connections.

Nisar et al. (2019) stated that individuals' online profiles reflect their present offline lives. Social media users utilize online profiles to display elements of themselves which they want others to see. Users manipulate their online information to build a positive identity. In addition to development of identity, social media allows users to create gratification in cognitive, emotional, and social lives (Pittman & Reich, 2016). Only a few areas are gratified, resulting in many ungratified needs.

Lee (2020) and Hayes et al. (2016) pointed out that social media contributes to relationship problems. In their study, two third of the respondents agreed that social media impacted their relationships. Uncertainty reduction theory (URT) understands the impact of social media on relationships. This theory was developed in 1975 by Berger and Calabrese, who shared that people develop relationships when they have no uncertainties between them. Relationships break when partners have a lot of uncertainties between them. The initial focus of this theory was the early stages of relationship. With time, however, the theory has been evolved to apply to all stages of relationship development (Javaraman et al., 2018). URT has been linked to stability of relationships. According to URT, increasing communication between partners on social media reduces uncertainties regardless of the distance between them. Vusparatih (2019) examined the impact of Facebook on relationships using URT. The theory used a lens to provide guidelines in analyzing the results. Through social media sites, people have opportunities to engage with their partners and close friends regularly. Lee (2020) argued that social media increases connections and information sharing to reduce uncertainties and enhance relationship satisfaction.

Chen and Li (2017) showed that online communication helps individuals to initiate new relationships and maintain close ties with their friends and loved ones. The researchers also found that young people use social media sites such as Facebook to connect with their partners in positive ways. This increases satisfaction in a romantic relationship. Additionally, Thomas et al. (2020) discovered that partners who shared the status of their relationship with their online friends reported being more satisfied. To improve the quality of the relationship, partners share their pictures together on social media.

Interpersonal relationships in a digital age. Interpersonal relationships include relationships that occur between more than two individuals and can be done using online or offline interactions. In the current study, the researcher considered how the use of social media affects human relationships and mating patterns. Okdie and Ewoldsen (2018) suggested that social media was already affecting how people interacted with each other offline. Phubbing, a term coined by Chotpitayasunondh and Douglas (2016), was described as "the act of snubbing someone in a social setting by concentrating on one's phone instead of talking to the person directly" (p. 10). The researchers discovered that phubbing is increasingly becoming the norm, but it is viewed as a rude behavior among the social media users. The extent to which individuals phub each other depends on how they are addicted to social media. As smartphone use continues to increase, the rate of phubbing is expected to increase thus affecting the way people interact with each other.

Lee (2020) noted that Internet providers have distorted the boundary between offline and online relationships. Seeking to understand how family relationships are affected by technology, Lee found that interactions with online friends on social media sites had negative effects on individuals' daily life. These negative effects included distraction from job performances, increased Internet addiction, and reducing the function of offline relationships. In support of these findings, Berry et al. (2018) found that misusing sites such as Facebook and Twitter results in negative consequences such as social isolation, infidelity, addiction, reduced social cohesion, divorce, and lack of trust in relationships. Offline and online relationships have developed and are interconnected, such that what is done online affects the offline relationships. The history of an individual and their social status influences what they learn and do online, which then spills over to their offline lives (Berry et al., 2018). Lee (2020) shared that people with high Internet use experience had low quality offline relationships. In addition, high Internet use results in lack of commitment in offline relationships and more conflicts between partners due to reduced trust. Hayes et al. (2018a) stated that lack of competency at starting offline relationships can be attributed to increased social media usage especially sites such as Facebook. The more people use social media, the more it becomes hard for them to physically interact with others.

Rasmussen (2018) asserted that social media users who had a high dependency on their mobile devices experienced reduced attention, which, in turn, resulted in depression, thus negatively affecting their offline relationships. The researcher found that people who frequently use social media reported a lot of unfinished daily tasks thus making it difficult for them to achieve their goals in life. Additionally, there was a reduction in sexual intimacy with their primary partners. According to Pittman and Reich (2016), social media not only affects individuals' relationships with others, but also with themselves. It determines how people perceive the world around them (Rasmussen, 2018). Pittman and Reich (2016) found Internet addicts to be lonelier, depressed, and with poor social skills making it difficult to make new friends. The overuse of the Internet results in negative characteristics. Additional research by Lee (2020) revealed that overusing social media sites lead to negative consequences to the lives of adults both in personal and mental well-being. The more addicted people become on their smartphones, the more they will experience reduced emotional well-being and self-esteem. From the analyzed research, it is possible to conclude people's offline relationships can be impacted by how frequently they use their social media sites. To further understand the level to which

15

individuals' emotions are affected by social networking, four psycho-sociological problems will be examined.

Social media use and relationships. Social media use affects individuals' satisfaction in relationships. Charoensukmongkol and Sasatanun (2017) found that social media users from low-income families had high chances of arguing with their partners about the time they spend on social media. Excessive use of social media can lead to dissatisfaction and conflicts between partners in relationships. According to Charoensukmongkol and Sasatanun, social media provide a platform for partners to interact with new friends, leading to infidelity. In addition, social media has negative behaviors such harassment and stalking, which affects how individuals judge and interact with their partners.

The impact of using social media on relationships is influenced by how frequently one uses it. Elhai et al. (2016) posited that Facebook is the most influential social media site. Overuse of social media is problematic for both partners. Different people use social media differently. The types of social media users depend on intensity of the usage and type of social media site. The frequency of social media use depends on marital status, gender, age, education, location, peer group, and socio-economic status. Dempsey, O'Brien, Tiamiyu, and Elhai (2019) found that there are more male social media users than females. Therefore, relationship satisfaction differs depending on the type of users.

Sutcliffe et al. (2018) suggested that intimate relationships were made up of several elements. Romantic relationships differ with other causal relationships in different ways including caring, interdependence, commitment, knowledge, trust, and mutuality. Partners in romantic relationships always have confidential knowledge about each other. They have

information about themselves which they cannot share with other people. According to Sutcliffe et al., sharing confidential information between the partners increases intimacy within the relationship. In addition, partners feel much respect and affection when intimacy is high. As individuals develop together in their relationships, their behaviors affect each other. Interdependence between partners over a period of time results in a meaningful impact on each other's life. Interdependence develops into mutuality which makes partners see themselves as couples. Schmidt et al. (2018) stated that mutuality manifests itself in how people talk about their partners. Mutuality helps partners accept their attachment to each other. Schmidt et al. identified another intimacy element as trust, which involves treating other people with respect and fairly. In intimate relationships, individuals expect their partners to listen and respond to their needs without causing any harm. Trust is an important element in solidifying romantic relationships. Lack of trust makes people distance themselves, thus losing their closeness.

Ryan, Allen, Gray, and McInerney (2017) posited that commitment to romantic relationships was very high. The partners spend a lot of time and resources just to stay close to each other. Lack of commitment reduces interconnectedness between partners. Ryan et al. noted, however, that romantic relationships are not always affected by these elements. The authors found that some relationships can have interconnectedness and closeness but lack trust, openness, and affection. Lack of trust and openness reduce intimacy. There are different factors that affect relationship intimacy, which include emotional support, self-disclosures, and communication. Individuals reveal information to their partners through self-disclosure. According to Ryan et al., it is difficult to have a romantic relationship without sharing personal information. The development of romantic relationships depends on how open partners are with each other. Personal information becomes important as the relationship develops. Sharing information improves communication thus enhancing relationship stability. Rasmussen (2018) found that much information sharing is done online through social media interactions, thus increasing the evidence that social media use is affecting offline relationships. Relationship satisfaction is increased the more individuals have self-disclosure. By revealing more information to their partners individuals become vulnerable in relationships (Rasmussen, 2018). This vulnerability, in turn, increases intimacy as partners understand each other. Another important element in the link between social media and relationships is emotional support.

Emotional support is an important element in social support that every person needs to have. In their study, Rosenthal, Buka, Marshall, Carey, and Clark (2016) found that partners rely on each other for emotional support, which might come in the form of reassurance and affection. Partners who have emotional support develop positive physiological effects. Emotional support helps people to live a healthy life and achieve higher satisfaction in relationships as compared to those who receive less support. To provide better emotional support in relationships, partners must be keen to their individual preferences and the actual time when support is required.

In another study, Nisar et al. (2019) argued that social media improves communication between partners, hence improving their intimate relationship. The findings of their study showed that through constructive communication, information sharing is enhanced. Strategies such as active listening and validation of information plays key in achieving relationship satisfaction. Active listening allows partners to understand messages clearly to avoid making uninformed judgement that causes misunderstandings. Overuse of social media reduces the time that partners spend together thus causing relationship dissatisfaction. Holte and Ferraro (2020) suggested that women want to spend more time with their partners to increase intimacy in the relationship. Hunt, Marx, Lipson, and Young (2018) stated that spending a lot of time with low intimacy partners might result in stress thus negatively affecting the relationship. In general, spending more time together allows partners to resolve their problems and increase or maintain high level intimacy in their relationship.

O'Sullivan and Carr (2018) referred to interpersonal communication as a form through which people exchange feelings and information using verbal and nonverbal messages. This type of communication involves mutual influence, an element which differentiates it from other communication styles. According to O'Sullivan and Carr, individuals can use interpersonal communication to initiate new relationships by expressing their feelings to others. Individuals increase interactions with the people they wish to have relationships with. They continue to communicate interpersonally in order to ensure that the relationship is maintained (Odoom et al., 2017). Odoom et al. posited that interpersonal communication can be utilized in ending or redefining relationships based on the interests of the partners. Orben and Dunbar (2017) shared that people use social media to manage their relationships and make new friends. These researchers discovered that instant messaging such as on Facebook develops a positive impact on relationships. Texting, e-mails, and other platforms of instant messages are utilized in maintaining relationships. Nisar et al. (2019) found social media to have lower quality interactions as compared to face-to-face interactions. Therefore, whether offline or online, people use interpersonal communication to maintain their relationships.

Interpersonal communication can be grouped into three categories, which include dynamic communication, small-group communication, and public speaking. Dynamic

communication involves conversation between two individuals either through social media or letters. It allows the sender to receive immediate response from the receiver (O'Sullivan & Carr, 2018). Interpersonal communication leads to interpersonal relationships, which can be classified into friendship, family, romantic, and professional (Vahabi, Vahabi, & Roshani, 2017). Due to their continuous change, interpersonal relationships are generally dynamic in nature. As people get to know each other, relationships grow and develop. Vahabi et al. found that partners want to stay closer to each other in order to develop emotions; however, as the distance between partners increases, relationships gradually deteriorate and individuals move on to make new relationships.

In the past years, the Internet was largely utilized for gathering and sharing information but today it is used for communication and interactions. Due to easy access to the Internet, people use social media to communicate and connect. In developing countries, the use of the Internet and social media is increasing at a high rate. According to Febrianita and Hardjati (2019), access to the Internet aids individuals to develop interpersonal communication, which is an important factor in the development of online and offline relationships. According to interpersonal needs theory, developed by Psychologist William Schutz, people develop and maintain relationships depending on how their basic needs are addressed (Schutz, 1958). These three needs include affection, inclusion, and control. People interact and communicate in order to meet particular needs depending on the type of their relationship. Relationships are developed using both verbal and nonverbal interpersonal communication (Uhls et al., 2017). As Uhls et al. reported, nonverbal interpersonal communication largely shows the beliefs and attitude of a person. Many people believe in a person's nonverbal communication more than the verbal messages. Physical interactions and contact communications increased emotions between partners, enhancing the quality of their relationships.

Intimacy and relationship development. Mutual confiding, which involves offline selfdisclosure intimacy, affects how relationships change. Offline communication includes individual reciprocal interaction. In such interactions, people reveal their private information to their partners. As relationships develop, there is an increase in self-disclosure intimacy (Orben & Dunbar, 2017). According to Orben and Dunbar (2017), people who achieve high self-disclosure intimacy develop more trust in each other; however, making self-disclosure very intimate reduces trust between individuals. Previous scholars have assumed that self-disclosures are reciprocal. In offline relationships, people tend to match their self-disclosure with that of their partners (Odoom et al., 2017). On social media, users share their self-disclosures with their friends and followers, many who fail to interact with the post. The online friends and followers, the majority who are unknown to the self-disclosure, do not have a way to reciprocate the selfdisclosure. Odoom et al. associated social media self-disclosure intimacy with high relationship stability. Both online and offline self-disclosure intimacy affects the rate and strength of relationship development.

Valence and relationship development. Hayes et al. (2018a) posited that self-disclosure valence determines how people develop their relationships. Valence shows the level to which the shared information is positive, neutral, or negative. These researchers found that individuals used their positive self-disclosure to show what they would bring to their partners in relationships thus strengthening the development of a healthy relationship. This applies to most social media users who post more about their positives.

According to Hayes, Wesselmann, and Carr (2018b), posting positive experiences on Facebook increases relationship intimacy, especially when partners are experiencing challenges. Positing or disclosing positive messages on social media platforms also enhances connectedness. Social media users who have a strong self-esteem are more likely to share positive experiences. They found social media more beneficial as compared to individuals with low esteem (Hayes et al., 2018b). Furthermore, Hayes et al. found that people paid more attention to negative offline self-disclosure than positive ones.

Couples and communication through social media. According to Mpepo (2017), modern technology allows people to interact with their friends without necessarily having to meet face-to-face. The use of computers and mobile phones has introduced social media as a form of communication. SNS are not only being used as communication tools, but also as a way of expressing intimate relationships. As highlighted by Mpepo (2017), individuals tend to show affection by using the photos of their partners as their profile pictures on social media platforms. In previous years, before the introduction of the Internet and social media sites, relationships had only a few elements that needed attention such as commitment, trust, love, passion, satisfaction, and honesty. With modern technology and the increased use of social media, however, romantic relationships must deal with additional challenges. Naab, Karnowski, and Schlütz (2019) concluded that the use of SNS has affected the way people interact and initiate new relationships. Papp, Danielewicz, and Cayemberg (2012) suggested that "we can no longer disregard the potential connections between Facebook and intimate relationships, which serve as one of the most important contexts of individual growth and development" (p. 85).

Papp et al. (2012) highlighted that over 60% of adults on social media use it to check on their partners. Sutcliffe et al. (2018) investigated how college students initiated and developed their intimate relationships using social media and other computer-aided communication. Only 37% of the 985 students surveyed reported using social media in initiating new and successful relationships. These researchers also found that males were more likely to start a relationship through SNS as compared to females. Majority of individuals who start relationships through social media are too shy to have face-to-face interactions. Intimate relationships across the U.S. have been established and maintained by communication technologies, including mobile phones, social media, and the Internet. Misinterpretation of messages on social media can result in difficulties in solving problems and developing intimacy in relationships (Schmidt et al., 2018). Overuse of social media causes disruption in the intimacy process thus making individuals feel excluded and ignored by their partners. The result of perceived neglect is jealousy, which affects relationship stability.

Clark et al. (2017) urged that social media sites have provided users with opportunities to post and comment on other people's pictures and posts which might cause misinterpretation of messages. According to Clark et al. (2017), more than 34% of the divorce cases in the U.S. have mentioned Facebook as the reason for their separation. American Academy of Matrimonial Lawyers shared that the biggest concern with Facebook involves partners sending inappropriate messages to friends of opposite gender (Clark et al., 2017). Regardless of the dissatisfaction caused by SNS, individuals use it to connect with each other and satisfy their emotional needs. Elhai et al. (2016) posited that using text messaging ensures that partners stay connected to each other to improve intimacy. Social media sites provide a platform through which couples deal with their issues.

With increased technological advancements, smartphones and computers have become important parts of people's lives, which has changed the way people communicate and interact. Dobson-Lohman (2020) discovered that social media users utilize these sites to find a partner with whom they can develop intimate relationships. Users of these sites are required to upload their pictures and private information, including location, gender, age, and hobbies, to develop an online profile.

Social media on interpersonal communication amongst couples. Just like a spouse relationship, social media has an impact on the parent-child relationship. Benetoli, Chen, and Aslani (2018) investigated how social media affected the relationship between parents and their children. Semi structured interviews were used in collected data from 231 participants. The researchers found that the parent-child relationship was improved through text messaging. A majority of the parents reported that communication technology helped them to develop something in common with their children. As Alnjadat, Hmaidi, Samha, Kilani, and Hasswan (2019) reported, social media can be addictive among the young adults thus breaking the parentchild relationship. SNS sites such as Facebook involve image sharing, which is more appealing to children than adults. Overuse of social media disconnects children from their parents and grows away from them as they find comfort with their online community.

Chen and Li (2017) stated that the increase in attention towards social media by the children has significantly reduced focus on studies and creating a good relationship with parents. Children have become more thrilled with what is shared on social media, which meets their

individual desires, entertainment. According to Chen and Li, easy access to smartphones make it easier for children to join different social media sites which drives them away from studies. Poor performance in school affects the relationship between parents and their children. Similarly, Charoensukmongkol and Sasatanun (2017) shared that children who are always connected to their smartphones are disconnected from real-world interactions. The disconnection results in gaps in the parent-child relationship because children do not pause to solve their concerns while parents continue to lose touch with what is happening in the social media world. Regardless of being a barrier in the development of personal relationships, social media use can provide opportunities for parents to improve relationships with their children. Through social media, parents learn about the interests of their children and what they are doing based on what they post and share online (Chen & Li, 2017). In the millennial age, social media has developed into an important mode of communication and exchanging ideas.

Baxter, Craig, Cotton, and Liney (2019) found that the biggest concern of parents is the amount of time that social media takes away from their children. SNS hinders the development of quality relationships between parents and children, as it can be addictive when overused and it is more appealing to children. When on social media, children find more videos to watch and games to play, which disconnects them from their parents. According to Baxter et al., such children grow up with more interest in online communities than their parents. The focus on social media is because children need more attention when growing up, which they get on social media platforms. A majority of parents are busy with their work, leaving little time to bond with their children. Parents do not provide adequate attention due to work and other demands that keep them occupied (Hayes et al., 2018a).

Chen and Li (2017) examined the impact of social media on family relationships using a qualitative case study with a sample size of 785 family members. Interviews and questionnaires were used as the main data collection instrument. Chen and Li found that technology is increasing social media use hence breaking down family relationships and communication. Families have been robbed of attention, safety, communication, and unity as members continue to focus more on online communities. In another study, West (2019) asked parents and children to provide their opinions and experiences regarding the use of smartphones and social media. According to the findings, children reported that their parents were addicted to mobile phones and used them more frequently. The children reported that they wanted their parents to spend more time with them so that they could understand the best ways to interact. The findings of West are clear evidence that the growth of social media due to increased smartphone ownership has negatively affected family relationships and interactions thus breaking ties between parents and their children. When utilized well, however, technology can keep family members close and connected. It allows members to track each other's location and keep track of their daily activities. Through social media, children or parents can be reached easily, especially in cases of extended families (Chen & Li, 2017). According to Whiteside, Aleti, Pallant, and Zeleznikow (2018), SNSs helps families reduce stress of modern life by allowing distant family members to communicate using e-mails, texting, or phones.

The impact of SNSs is very strong. According to Whiteside et al. (2018), social media use can result in zero or negative interactions among family members. As members become addicted to social media, families do not have opportunities to learn and model each other's interpersonal relationship skills, social cues, bonding, and communication skills. Humans are social creatures and need bonding in order to develop relationships. According to Whiteside et al., social media fools people that they are connected while depriving them of the ability to hear verbal and nonverbal messages that are critical in developing intimacy in romantic relationships. Ryan et al. (2017) found that children mimic the behaviors of their parents. Therefore, as parents spend more time on smartphones and social media, children learn how to focus more on SNSs than offline relationships. The researchers also stated that as parents spend more time and focus on social media, children are more likely to engage in risky behaviors. Ignorance is another factor which reduces the quality of family relationships. Whiteside et al. (2018) highlighted that parents who arrive from their workplace were only greeted 30% of the time by their children who were addicted to social media. A majority of the time (60%), the parents were ignored. Additionally, children who spend more time on social media reported feeling less supported by their parents.

Chukwuere and Bonga (2018) noted that parents have their responsibilities and duties blurred due to increased social media usage. Parents working from home, especially during the COVID-19 pandemic, may spend more time on technology than their children. According to Chukwuere and Bonga, more than 70% of women reported that smartphone use interfered with their relationships. They reported that more than 50% of conversations in their relationships are interrupted by their partners using smartphones. Furthermore, 33% of women shared that their partners use social media sites even during mealtimes. According to Clark et al. (2017), people communicate frequently with their family members and friends through social media; however, the quality and style of communication is very weak. Clark et al. also found that children who focus on social media a lot do not understand their emotions, making it difficult to develop relationships. They become more dependent on others as they cannot initiate offline interactions. Dempsey et al. (2019) shared that children want to spend quality time with their parents and be listened to rather than interact online. Working to increase the time spent with family members without social media interruptions is very important.

Healthy relationships with social media and partners' social media on marital satisfaction. Irani and Rezaei (2019) performed a study to investigate the effect of social networks on marital relationship quality of life among couples of social network members in Shiraz in 2018. Applying a descriptive-correlative method and statistical approaches, Irani and Rezaei conducted the study among all couples of social networking members in Shiraz, which were 425 individuals. Using a researcher-made marital relationship questionnaire as the instrument for data collection and leveraging SPSS software for analyzing the data, the results of Irani and Rezaei demonstrated that the use of social networks had a significant effect on marital relationships and quality of life.

Tong, Chu, Zhou, and Feng (2021) explored the relationship between Internet use during nonworking hours and marriage well-being and channels through which Internet use operated on marital satisfaction. With a 2-year nationwide micro panel data, Tong et al. showed negative effects of Internet experience on overall marriage satisfaction, satisfaction towards spousal contribution in housework, and marital stability. These authors adopted linear and nonlinear models, used propensity score matching approach, and implemented parametric as well as semiparametric analyses. The results of the study revealed active Internet users could use the Internet to chat with strangers and easily access potential romantic partners. Tong et al. indicated that its social function led to a substantial reduction in search cost and raised reservation value of partner contributed to a lower level of spousal satisfaction. Moreover, the results showed that Internet use partially weakened traditional Chinese views of family gender roles, and gender ideology changes through Internet's educational function had increased spousal dissatisfaction in China.

Social media on romantic relationships and past relationships. Cyberintimacy refers to the phenomenon of technology-mediated communication between partners and potential romantic interests (Kwok & Wescott, 2020). With a swipe, click, or delete, people are able to seek and sustain romance in unprecedented ways (Kwok & Wescott, 2020). Individuals in a romantic relationship typically have a substantial number of digital possessions associated with that relationship (Herron, 2020). Individuals in a romantic relationship sometimes create digital possessions connected to their relationship before meeting in real life, and these digital possessions connect partners by contributing to their digital identities as individuals in a relationship (Herron, 2020).

Herron (2020) suggested digital possessions were an important part of a digital connection between partners, which actively contributed to the maintenance of that connection. Herron found that if a romantic relationship ended in a breakup, separation, or divorce, the digital possessions that once connected partners in a positive way became responsible for maintaining a connection that no longer accurately reflected the ex-partners' relationship status. Herron also suggested that the persistence of digital possessions means that until they are managed or curated in some way, those digital possessions would continue to connect expartners in a digital context.

Research evidence shows that cyberintimacy significantly impacts the way people form, maintain, or extinguish romantic relationships (Kwok & Wescott, 2020). Kwok and Wescott

conducted a scoping review to delineate how using technology-mediated communication was associated with the satisfaction and quality throughout the romantic relationship lifecycle. Kwok and Wescott also aimed to identify the emerging themes in existing research. Adhering to Arksey and O'Mayley's six-step framework methodology, a systematic database search, literature screening, and qualitative synthesis of the findings were performed. The authors selected a total of 72 studies from a pool of 4,062 articles derived from six academic databases. The findings showed cyberintimacy had a profound impact on outcomes in three crucial stages of the relationship lifecycle. Specifically, Kwok and Wescott indicated the impact of cyberintimacy from the way people found and fielded partners online through the process of initiation, to the means by which partners used technology to perform relationship maintenance, and finally to the ways in which people coped with the process of dissolution by using technology to reclaim a sense of agency.

Herron (2020) investigated the ways in which technology could support individuals in managing and curating their digital possessions associated with a past relationship, after that relationship had ended. Through four qualitative studies, Herron introduced and evaluated eight prototype grammars of action aimed at supporting individuals to manage and curate their digital possessions in the context of a breakup. This author also presented a reproducible method for identifying design dimensions to guide the development of those grammars of action across different life transitions. Herron concluded that the tools and options available to ex-partners when it came to managing and curating their digital possessions in the context of a relationship breakup were limited, which often did not support the specific intent of the individual. Tong et al. (2021) suggested that Internet use crowded out time spent on housework as well as other investment in current marriage. As such, Internet use increases spousal dissatisfaction (Tong et al., 2021). The results of Herron (2020) demonstrated an understanding of the ways in which individuals' attitudes towards digital possessions might be tainted after a breakup. Herron also described the current technical limitations that individuals were confronted with when curating and managing digital possessions following a breakup.

Social media on infidelity, sexual affair, and well-being. Dating software applications and online dating are common ways to meet romantic and sexual partners in today's world (McCartney & Hellier, 2021). Compulsive social media use has repercussions on the users' social, psychological, professional, and personal lives (Abbasi, 2019). The availability of online romantic alternatives, disguised as friends, provides a ripe environment that can facilitate an emotional and/or sexual affair (Abbasi, 2019). Online interactions with virtual friends consume users' attention and distract them from spending time with their significant other, which leads to adverse relationship outcomes (Abbasi, 2019).

Adolescents are among the highest consumers of social media, while researchers have shown that their well-being decreases with age (Booker, Kelly, & Sacker, 2018). Booker et al. examined whether the changes in social media interaction and two well-being measures were related across ages using parallel growth models. Collecting data from five waves of the youth questionnaire (10–15 years) of the Understanding Society's UK Household Longitudinal Study, Booker et al. assessed social media interaction through daily frequency of chatting on social websites. These authors measured well-being by happiness with six domains of life and the Strengths and Difficulties Questionnaire. Their findings revealed gender differences in the relationship between interacting on social media and well-being. Booker et al. found significant correlations between interacting on social media and well-being intercepts, as well as between social media interaction and well-being slopes among females. Moreover, the results of the study indicated higher social media interaction at age 10 years was associated with declines in well-being thereafter for females, but not for males. The results were similar for both measures of well-being (Booker et al., 2018).

Abbasi (2019) examined the relationship between social media addiction and infidelityrelated behaviors in a sample of 365 partners, both females and 123 males. Abbasi also determined whether age influenced the connection of social media addiction and infidelity related behaviors. The findings indicated that social networking sites addiction predicted social networking sites infidelity related behaviors. Abbasi also found that age moderated this relationship.

Paralleling the use of social media platform dating, sexually transmitted infection rates are increasing nationwide (McCartney & Hellier, 2021). McCartney and Hellier employed a qualitative study to explore women's experiences in using online dating sites and applications. The findings of this study emerged significant key themes: (a) motivation; (b) matching; (c) communication; (d) face-to-face interaction; (e) rules and safety; and (f) sexual well-being.

Online dating is a common way to meet people. The results of Booker et al. (2018) suggested high levels of social media interaction in early adolescence had implications for wellbeing in later adolescence, particularly for females. The results of Abbasi (2019) suggested that age was negatively related with social networking sites addiction and infidelity. Booker et al. (2018) argued that the lack of an association among males suggested that other factors might be associated with their reduction in well-being with age. Based on the results, McCartney and Hellier (2021) called for the need to understand patients' use of social media platforms and sexual practices that might have health implications and argued that social media platforms and sexual practices might have sexual health implications. As such, McCartney and Hellier also posited that social media dating sites might be considered an at-risk group.

FOMO and anxiety. Fear of missing out (FOMO) is a psychological mentality that people might be missing out on a social opportunity to interact with others. FOMO requires individuals to always stay connected with their friends to receive the latest news and other updates. This need to stay connected with other peers may result in addictive smartphone use. A negative impact of overusing a smartphone is reduced emotional self-control. According to Holte and Ferraro (2020), reduced emotional self-control can be seen in two ways. First is through decreased cognitive reappraisal, which involves challenges in accessing an individual's emotional state. Second is increased emotional suppression, which always results in increased pressure and stress thus making poor judgments. These two factors result in inability to have emotional regulations. Elhai et al. (2016) shared,

Overusing one's smartphone does not account fully for depression or anxiety; rather, other intervening variables may play a role. Specifically, less behavioral activation and (for depression only) more emotion suppression appear to account for this relationship. Problematic smartphone use may interfere with other pleasurable activities and disrupt social activities thereby reducing behavioral activation and subsequently increasing depression. It is possible that emotional suppression, a correlate of problematic use, disrupts adaptive processing of emotions, which in turn is associated with greater depression. (p. 514)

It is not social media that causes the negative impacts on individuals' lives, but the misuse, abuse, and overuse thereof. Dempsey et al. (2019) examined the parts of the brain that were illuminated when exposed to images using EEG brain scanner. These researchers investigated FOMO, social exclusive experiences, and social inclusive experiences. Their findings showed that individuals with higher FOMO ratings were more aware of their emotional status and those of their friends thus enhancing their social interactions. The higher the FOMO ratings, the more people require self-approval—a reason why individuals return to social media often. Other than FOMO, Hayes et al. (2018b) listed anxiety as another factor affecting social media users. Schmidt et al. (2018) investigated how anxiety manifests itself among students when separated with their mobile phones for a particular period. The researchers collected data on why participants separated with their phones and how long they use their phones. Schmidt et al. discovered that students spend 13 hours each day on their phones and the reasons for using the mobile phones include texting, listening to music, talking to their friends and family members, visiting websites, watching videos, reading books, using e-mails, and other social media sites. The authors also found that Facebook is the most used social media site. The lowest social media users spend between 1–7 hours, moderate users spend 8–17 hours, and high daily usage is over 18 hours.

The findings of Schmidt et al. (2018) showed that individuals with low daily social media usage did not experience any anxiety. For higher social media usage rate, anxiety increased over time and continued to rise. Schmidt et al. highlighted that individuals who used their phones regularly experienced higher anxieties when separated from their phones. Lack of social media interactions can result in stress and depression, thus affecting how people interact offline. These findings contrast with Pittman and Reich's (2016) conclusion that social media makes people feel loved and accepted.

Depression and loneliness. Apart from anxiety and FOMO, depression and loneliness affect the mental health of individuals to increased social media use. In a study conducted by Hunt et al. (2018) to investigate causes of depression and loneliness among college students, the authors found that college students experienced anxiety and depression five times higher than other youth. Previous scholars have identified different theories as to why college students experience high rates of anxiety and depression. Hunt et al. argued that social media use especially sites such as Instagram and Facebook contributed to the growing problem among the college students. In countries where social media use is high, such as the United States, depression and loneliness have increased in recent years. Berry et al. (2018) found that heavy Instagram and Facebook users reported more symptoms of depression. These authors also found that heavy social media users engaged in online surveillance resulting in envy behavior. Heavy social media users had high levels of depression and envy, which forced them to engage in online surveillance.

Facebook intensity involves high usage of Facebook which interferes with individuals lives and relationships. This intrusion, according to Whiteside et al. (2018), can be understood as social networking addiction which might make users feel guilt and loneliness. Thomas et al. (2020) contended that Facebook intrusion might result in dissatisfaction in relationships. These findings are reflected in the work of Wallace and Buil (2020), who found that a link between Facebook usage and feelings of jealousy. Heavy social media use—defined as using social networking sites at least five times a day—increases the chances of FOMO. FOMO occurs when individuals are disconnected from social media and feel anxious about missing to interact with their online community. Naab et al. (2019) reported that people who use Facebook more frequently, especially those with low incomes, are not content with their lives. Socioeconomic status determines the extent to which people use social media. Its use can either be a positive or negative influence on offline relationships.

Depression and loneliness are not the same, although they are often correlated. Wallace and Buil (2020) explained the relationship that exists between loneliness and depression by examining 153 students by enquiring about their experiences in using different social media sites. The results showed that students were happier with image-based platforms such as Facebook and Instagram in comparison to text-based platforms such as SMS texting and Twitter. According to Wallace and Buil, image-based social networking sites offer opportunities for users to interact face-to-face, thus making them feel stronger connections with others. Wallace and Buil found that text-based platforms had little impact on individuals' psychological well-being. The level at which people use image-based platforms determines their level of depression and anxiety. To overcome loneliness, people need to use more image-based social media sites than text-based platforms.

Thomas et al. (2020) suggested that social media users could still feel depressed even when not lonely. These researchers described loneliness as the lack of companionship with someone else, while depression is the emotion that is internally experienced by a person. When combined with the use of social media sites, individuals may feel socially isolated. Social isolation makes people feel less valued and do not have the right minds to get out of a particular situation. Rosenthal et al. (2016) investigated the negative experiences that families have in using social media sites such as Facebook. Their findings showed that negative experiences on social media were associated with different symptoms and signs of depression. The use of image-based platforms such as Facebook and Instagram can result in depression and isolation, which translates into feelings of loneliness.

Cognitive behavioral therapy. *CBT on couples' relationships*. Internet addiction has become a major public health and social problem among adults and adolescents. The treatment of Internet addiction is similar to other approaches of addressing addiction. Cognitive behavioral therapy (CBT) is a behavioral treatment model that is short-term and problem-focused (Şafaköztürk & Arkar, 2017). According to Şafaköztürk and Arkar, CBT allows couples to consider the association between thoughts, beliefs, and feelings in order to choose the appropriate patterns and actions. "During CBT, clients learn that their perceptions influence directly on responses to specific situations" (Nilsson, Magnusson, Carlbring, Andersson, & Hellner, 2020, p. 31). The thought process of individuals can help them regulate their behaviors and actions when using social media platforms such as Facebook and Instagram. During CBT, therapists use different methods such as relaxation, social, physical, and thought exercises. These techniques raise the awareness of an individual regarding their behavioral and emotional patterns.

Several kinds of marital conflict might be solved through constructive communication, development of interaction skills, and behavioral and thought modification (Durães, Khafif, Lotufo-Neto, & de Pádua Serafim, 2020). Durães et al. reported the results of the application of a protocol-based CBT on dyadic adjustment, marital social skills, depression, and anxiety symptoms by including a sample of 32 participants or 16 couples. These authors divided the participants into two groups by their length of marriage: Group 1 (1–7 years) and Group 2 (8–12 years). The results revealed all the participants older than 18 had communication problems in their relationship. Durães et al. used different measures, including Dyadic Adjustment Scale (DAS), Beck Depression Inventory–II (BDI-II), Beck Anxiety Inventory (BAI), Marital Social Skills Inventory, and the Sociodemographic Questionnaire. All the participants were assessed pre- and postintervention and had a 6-month follow-up, and the intervention consisted of 12 50minute sessions per couple. The results of Durães et al. indicated that CBT protocols could significantly improve the couple's relationship.

Social media interventions for couples' relationships and communication. Communication through social media characterizes modern lifestyles and relationships, including family interactions (Procentese, Gatti, & Di Napoli, 2019). Social media interventions are a growing area of Internet research, particularly for adolescent health (Moreno & D'Angelo, 2019). The long-term effects of sexual abuse can be devastating for victims; posttraumatic stress disorder, anxiety, and depression are potential issues resulting from sexual abuse (Devlin, Hill, Berry, Felder, & Wilson, 2019). Devlin et al. analyzed three different therapeutic approaches family counselors might use for working with sexually abused children and adolescents. Devlin et al. indicated that these approaches included trauma-focused CBT, play therapy and expressive art therapy, eye movement and desensitization, and reprocessing therapy.

Moreno and D'Angelo (2019) presented the theoretical framework of affordances to help guide social media platform selection for intervention research. Affordances are a concept often used in fields associated with design and by those systematically studying the impact of a design of an object. Applying the affordances approach, Moreno and D'Angelo explored the impact of information technology and the design of social media platforms and described common affordances that could be applied to intervention design as well as existing evidence with an intervention case example for each affordance. Their results indicated a scientific approach for selecting the appropriate social media platform for a given intervention was an important research priority to advance the field of Internet research.

There is evidence that insecure attachment styles, rejection sensitivity, and the Dark Triad personality traits are negatively associated with relationship satisfaction, which, in turn, is negatively related to social media addiction (Demircioğlu & Göncü Köse, 2021). Demircioğlu and Göncü Köse investigated the mediating effects of attachment styles, rejection sensitivity, and the Dark Triad personality traits on the links between relationship satisfaction and social media addiction. These scholars collected data from 229 university students from 14 different universities in four different cities of Turkey. Employing structural equation modeling analyses, the results of study revealed that the level of relationship satisfaction was a significant predictor of social media addiction. Demircioğlu and Göncü Köse found that relationship satisfaction or dissatisfaction partially mediated the link of fearful attachment with social media addiction.

Devlin et al. (2019) argued marriage, family, and couple counselors should be educated in various treatment options for sexually abused adolescents, due to the frequency and severity of this form of abuse. Devlin et al. recommended that future researchers focus on the relationship interventions and solutions for family, marriage, and couples' counselors. Based on the results,

Demircioğlu and Göncü Köse (2021) suggested that the direct positive paths from fearful attachment, rejection sensitivity, and psychopathy to social media addiction were significant.

Conclusion

The findings of this literature review demonstrated that there is a significant impact, both positive and negative, from social media use on individuals' relationships. An important consideration is that mutual confiding, which involves offline self-disclosure intimacy, affects how relationships change. People who achieve high self-disclosure intimacy develop more trust in each other. The literature review has also established that through FOMO, individuals remain online throughout to stay connected with their friends to receive latest news and other updates. The need to stay connected with other peers has resulted in addictive smartphone use, which, in turn, makes it difficult for relationships to be cultivated and maintained. Furthermore, as smartphone use continues to increase, the rate of phubbing is expected to increase, thus affecting the way people interact with each other.

Scholars have also found that the overuse of social media has increased conflicts and challenges in marriages as couples focus more on SNSs than solving their marriage concerns. The number of SNS users has grown from 7% in 2005 to 65% in 2019 (Holte & Ferraro, 2020). Just like a spouse relationship, social media has an impact on the parent-child relationship. The impact of SNSs is very strong. According to Whiteside et al. (2018), social media use can result in zero or negative interactions among family members. Both parents and children who have access to smartphones are addicted to social media, leaving little time or energy for interacting and developing parent-children relationships. Increase in attention towards social media by the children has significantly reduced focus on studies and creating a good relationship with parents.

In exploring the social media use and its relationship on relationships, several key themes and findings from the existing literature emerged. The results of Booker et al. (2018) suggested that high levels of social media interaction in early adolescence had implications for well-being in later adolescence, particularly for females. Booker et al. posited that the lack of an association among males suggested other factors might be associated with their reduction in well-being with age. The results of Abbasi (2019) suggested that age was negatively related with social networking sites addiction and social networking sites-related infidelity. The results of Herron (2020) demonstrated an understanding of the ways in which individuals' attitudes towards digital possessions might be tainted after a breakup. Herron also demonstrated the current technical limitations individuals were confronted with when curating and managing digital possessions following a breakup.

Tong et al. (2021) suggested that Internet use crowded out time spent on housework as well as other investment in current marriage. As such, Internet use increases spousal dissatisfaction (Tong et al., 2021). McCartney and Hellier (2021) posited that social media platforms and sexual practices might have sexual health implications. As such, McCartney and Hellier also argued that social media dating sites might be considered an at-risk group. Evidence suggests insecure attachment styles, rejection sensitivity, and the Dark Triad personality traits are negatively associated with relationship satisfaction, which, in turn, is negatively related to social media addiction (Demircioğlu & Göncü Köse, 2021). In another word, Demircioğlu and Göncü Köse suggested that the direct positive paths from fearful attachment, rejection sensitivity, and psychopathy to social media addiction were significant. Previous researchers that have investigated social media and its impact on marital satisfaction and romantic relationships have made practical implications and highlighted the problem space. Devlin et al. (2019) concluded that marriage, family, and couple counselors should be educated in various treatment options for sexually abused adolescents, due to the frequency and severity of this form of abuse. Devlin et al. recommended that future researchers focus on the relationship interventions and solutions for family, marriage, and couples' counselors.

Most recently, McCartney and Hellier (2021) called for the need to understand patients' use of social media platforms and sexual practices that might have health implications. Starabadi, Amirfakhraei, Keramati, and Samavi (2021) suggested that CBT could be applied as a pursuit of automatic thoughts to identify fundamental beliefs, teach behavioral methods, cognitive errors, and negative thoughts. Therefore, by exploring how social media is influencing human relationships and mating patterns, the findings of the current study could enrich the literature. In Chapter III, the research methodology is discussed. This chapter includes presentations and justifications of the selected research design, population, sample, and data collection instruments, as well as a consideration of the study's limitations.

CHAPTER III: METHODS

The purpose of this study was to understand how social media influences human relationships and mating patterns. The research methodology and design was a qualitative metaanalysis. Chapter III includes a discussion and justification for the selected research design, population and sample, instrumentation, data collection and analysis procedures, considerations of validity, methodological assumptions, and a summary.

Design

The design for this study was a qualitative meta-synthesis. Through the qualitative methodology, researchers aim to understand people's sense of their lives and experiences (Merriam, 2009). Qualitative research begins with assumptions and uses an explanatory outline of research problems to address the meaning of individuals or groups (Creswell & Poth, 2018). A qualitative research methodology was appropriate for the current study because it can facilitate open-ended explorations of phenomena, allowing the identification of themes and insights not anticipated by the researcher (Yin, 2014). The qualitative research methodology also allows the researcher to consider the context of a phenomenon and of participants' perceptions of contextual influences (Yin, 2014).

A meta-synthesis study is an intentional and coherent approach to analyzing data across qualitative studies (Erwin, Brotherson, & Summers, 2011). A qualitative meta-synthesis research design was appropriate for this study because the process of a meta-synthesis enables the identification of a specific research question to guide the search for, selection, appraisal, summarization, and combination of qualitative evidence (Erwin et al., 2011). The interpretive process of a meta-synthesis also allows the researcher to construct greater meaning (Erwin et al.,

2011). Therefore, a qualitative meta-synthesis research design was appropriate for this study.

Sample

The purpose of this qualitative meta-synthesis study was to understand how social media influences human relationships and mating patterns. The meta-synthesis included in-depth information from various scholars regarding the purpose of the study. To build a foundation of the research and reveal the gap in knowledge, the researcher reviewed the following topics: the growing social media users in the United States and worldwide, the impact and consequence of using social media, how social media has impacted interpersonal relationship, how social media has impacted human mating patterns, and the motivations for using social media.

The researcher searched and synthesized literature for peer-reviewed dissertations and journal articles beginning with academic databases and school libraries, such as ScienceDirect, PubMed, Cinahl, and PEDro. Google Scholar was also used. The researcher located and selected relevant articles that relevant to the identified themes, topics, and subtopics by applying a variety of alternative search terms, such as *social media*, *intimate relationship*, *parent-child relationship*, *uses and gratifications theory*, *interpersonal relationships*, *interpersonal communication*, *FOMO*, and *anxiety*. The review included peer-reviewed sources that were published in or after 2017.

Analysis

Data analysis requires researchers to comprehend how their findings will be interpreted (Creswell & Poth, 2018). In the current meta-synthesis, the researcher used qualitative methods to synthesize existing qualitative studies to construct a meaning through an interpretative process. The researcher used the meta-synthesis analysis approach suggested by Lachal, RevahLevy, Orri, and Moro (2017), content analysis, and thematic analysis (Braun & Clarke, 2006) to analyze the collected data.

Meta-synthesis analysis. The researcher followed the six steps of meta-synthesis suggested by Lachal et al. (2017). These steps were as follows:

- Defined the research question, which was to address how social media was impacting human relationships and mating patterns, and defined the inclusion criteria.
- 2. Selected the studies following the established searching strategy.
- 3. Assessed the quality of the studies.
- 4. Extracted and presented the formal data.
- 5. Analyzed the data.
- 6. Expressed the synthesis.

Thematic analysis. In the second part, the researcher used the six-step, inductive,

thematic analysis procedure developed by Braun and Clarke (2006):

- 1. Read and reread the data in full to gain familiarity with them.
- 2. Coded the data by grouping the statements that expressed similar ideas and opinions.
- Themed the data by grouping codes into a smaller number of more comprehensive themes or subthemes.
- 4. Reviewed and refined the themes.
- 5. Named and defined the themes.
- 6. Presented the results.

Content analysis. Content analyses are typically performed on forms of human communication, including books, newspapers, personal journals, legal documents, films,

television, art, music, videotapes of human interactions, transcripts of conversations, and Internet blog and bulletin board entries (Leedy & Ormrod, 2019). The current researcher conducted a detailed and systematic examination of the contents of the body of existing literature for the purpose of identifying patterns, themes, and biases. Lastly, the researcher conducted data triangulation with the data sources to indicate commonalities or discrepancies in the themes and codes to which the data sources contributed.

Validity

Internal validity. According to Adams and Lawrence (2019), threats to internal validity refer to the occurrence of events or conditions that are unrelated to the treatment, but that occur at some point during the study to produce changes in the outcome measure. Threats to internal validity can jeopardize the integrity of the research findings. To mitigate potential issues and improve the internal validity, the researcher (a) spent significant time and attention on collecting data from the meta-synthesis and (b) performed triangulation. Triangulation is a method that increases the credibility of qualitative research (Creswell & Poth, 2018). The researcher established the internal validity of this qualitative meta-synthesis study through triangulation to validate the ideas and opinions expressed in the existing literature.

External validity. External validity is the extent to which a study's findings can be generalized to other situations, people, settings, and measures (Creswell & Poth, 2018). Creswell and Poth (2018) suggested that including others beyond the research could contribute to the external validity of a study. The researcher shared the findings of this study for peer review, including school instructors. Peer debriefings are essential to keep the researcher honest

(Creswell & Poth, 2018). Therefore, the current researcher provided a debriefing statement where necessary.

Methodological Assumptions

It is important to consider limitations in every analytical inquiry for the purpose of data analysis and drawing conclusions. The first limitation of this study related to the qualitative meta-synthesis was the research design, which was limited to the crediting sources that the researcher was able to locate and the findings of the existing literature. After considering and comparing with other available research methodologies and qualitative research designs, the researcher assumed that a qualitative meta-synthesis research design would be appropriate for this study. Consequently, the generalization of the results from the study were limited as a result of the selected research methodology and design, as well as the methodological assumptions.

Summary

Chapter III included discussions of the study's research design, sample, data analysis procedure, considerations of validity, and methodological assumptions. The researcher developed one overarching research question to answer the stated problem. The data collection involved a combination of meta-synthesis analysis, content analysis, and thematic analysis. The use of three data analysis techniques allowed the researcher to conduct triangulation.

CHAPTER IV: RESULTS

Introduction

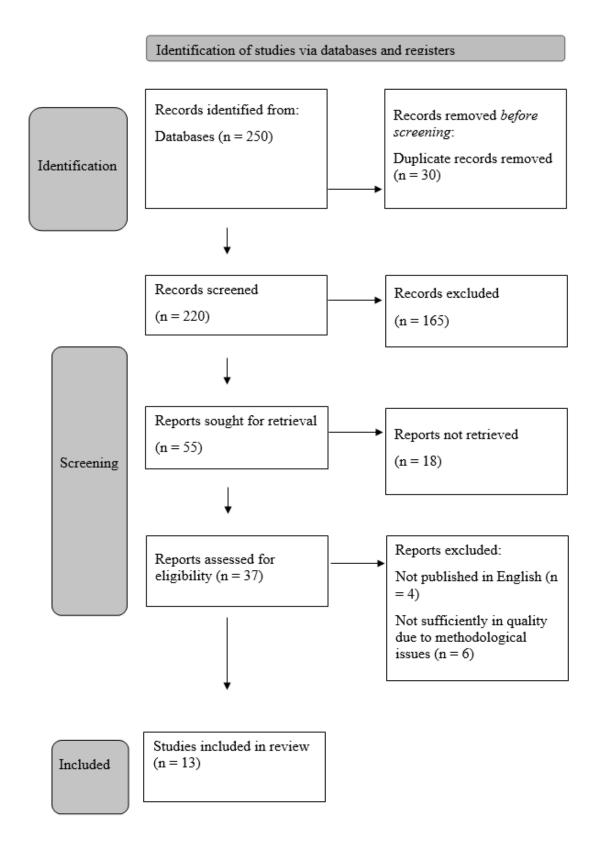
Social media is associated with various risks and harm to human or interpersonal relationships (Berry et al., 2018; Helm et al., 2020; Lee, 2020; McDaniel et al., 2017; Okdie & Ewoldsen, 2018; Wilson et al., 2020). Despite these documented risks, however, there are still domains of social media effect that are not well documented. For example, McDaniel et al. (2017) suggested that the empirical evidence concerning social media infidelity-related behaviors and marital relationships was limited. Whyte and Torgler (2017) similarly highlighted the need to understand how the Internet and/or social media are impacting human mating patterns, as well as the psychology behind the broader social science of human behavior in large-scale decision settings. Through this qualitative meta-synthesis study, the researcher aimed to understand how social media influences human relationships and mating patterns. The current researcher developed one question to address this purpose:

RQ1. How is social media influencing human relationships and mating patterns?

In this chapter, the researcher describes the results of the data analysis approach. Next, the researcher discusses how data were identified and describes the dataset. The following section is a presentation of the study findings. The chapter ends with a summary.

Data Collection

The dataset consisted of 13 previously conducted studies. In this section, the researcher describes how these studies were identified through a comprehensive systematic review of literature that utilized several databases. These databases included EBook Collection (EBSCO), Google Scholar, MEDLINE, PsycINFO, PubMed, SocINDEX with Full Text, and ScienceDirect. The researcher conducted this search using combinations of the following keywords and phrases:



social media, intimate relationship, parent-child relationship, uses and gratifications theory,

interpersonal relationships, interpersonal communication, FOMO, and *anxiety*. The researcher reviewed the reference list for all articles within inclusion criteria and reviewed additional information about the literature not found in the databases.

The inclusion criteria included: (a) peer-reviewed articles, (b) articles published in the English language, (c) articles using randomized controlled trials that examined the impact of social media on human relationships, (d) observational studies that evaluated the impact of social media on human relationships, and (e) articles published within the last 10 years. By selecting studies meeting these criteria, the researcher's intent was to obtain the most up-to-date data about the impact of social media on human relationships. Some selected articles were published before 2011, but they were included to provide a comprehensive view of the available research. Documents not published in English, non-peer-reviewed articles, and literature that did not have relevant search terms were excluded (see Figure 1).

Figure 1. PRISMA flow diagram.

Participating Studies

A total of 13 studies were included in the analysis. Of those 13 studies, the researchers of nine of them utilized a survey methodology to collect data. While most of those surveys were cross-sectional, one was longitudinal in nature. The four remaining studies that did not use a survey design were retrospective or observational. Only studies considered at least of high quality based on the number of participants and the study design were utilized in this study. Of

the 13 studies, four were considered to be of very high quality due to the size of the participant population and the clarity in which the studies described their methods and results. Table 1 illustrates the studies included in this meta-synthesis.

Table 1

Studies Contributing to Themes

Authors, Date	Objective	Analysis Method	Results	Qualit y
Orben & Dunbar, 2017	To measure how reading online 'posts' 15 affects relationship development	Questionnaire with longitudinal design sampling 243 participants	Results suggest that reading posts on social media and interacting in real life triggers similar or identical relationship formation pathways. These results support the argument that passive consumption is a new method of interaction that does not fundamentally change human psychology.	Very high
Clayton, 2014	To examine how social networking site (SNS) use, specifically Twitter use, influences negative interpersonal relationship outcomes.	Cross-sectional survey of 581 Twitter users aged 18 to 67 years	The results from this study suggest that active Twitter use leads to greater amounts of Twitter-related conflict among romantic partners, which in turn leads to infidelity, breakup, and divorce.	Very high
Sponcil & Gitimu, 2013	To examine social media use among college students and how it affects communication with others, and college students' self-concept	96 undergraduate students completed a cross-sectional questionnaire	Pearson correlation was conducted to see if there was a relationship between social media and communication with family and friends. There was a .586 Pearson correlation between use of social media and perceived communication with family and friends	High

Papp et	To examine male	Observational study	Results indicated that males'	High
al., 2012	and female dating	of 56 partners	and females' Facebook	
	partners'		relationship status	
	Facebook use and		disagreements (accounting for	
	portrayals of their		global verbal conflict) were	
	intimate		linked with lower levels of	
	relationship on the		females' relationship	
	Facebook profile		satisfaction but not males'	

McDaniel	To examine	Cross-sectional	More engagement in	High
et al., 2017	whether married/ cohabiting	questionnaire of 338 married/	infidelity-related behaviors on social media was significantly	
2017	individuals are	cohabitating	related to lower relationship	
	using social media	individuals	satisfaction, higher	
	sites to engage in		relationship ambivalence, and	
	online infidelity-		greater attachment avoidance	
	related behaviors		and anxiety in both women	
	and to what extent		and men. Additionally,	
	this related to		attachment anxiety and	
	relationship		gender interacted with	
	satisfaction,		relationship satisfaction in	
	ambivalence, and		predicting online infidelity-	
	relational		related behaviors when	
	attachment		controlling for other	
	characteristics		variables.	

Yang et al., 2014	To examine which media were most useful at different stages of relationship development, and how the pattern of usage may be influenced by contextual factors or users' gender		Analyses revealed a sequence of media use tied to stages of relationship development – from Facebook in early stages to instant messaging and then cell phones as a relationship progressed. Judgments about the efficacy and appropriateness of using a medium were based on how well its salient features matched prominent goals or addressed major concerns of a relationship at the given stage.	High
Arikewuy o et al., 2020	To find out the effects of social media use on conflict in romantic relationships through the mediating variables of jealousy, infidelity, and monitoring	Cross-sectional survey of 373 undergraduate student respondents	The findings of this study revealed a significant relationship between social media use and conflict in romantic relationships. This study also affirmed that jealousy, infidelity, and monitoring romantic partners are significant mediators between social media use and conflict in romantic relationships.	Very high

Nelson and Salawu, 2017	To examine the influence of Facebook on emotional infidelity and self- disclosure among married women.	Cross-sectional survey of 250 female respondents	This study found that almost 60% of respondents had witnessed situations where individuals are separated, break-up or divorced due to emotional infidelity on Facebook. In addition, more than 30% of respondents indicated that they had experienced emotional infidelity in previous relationships.	High
Abbasi, 2019	To examine whether SNSs addiction is linked to romantic relationship commitment	Cross-sectional survey of 252 married and romantically committed partners	SNSs addiction was also negatively linked to romantic relationship commitment.	High
Procentese et al., 2019	To examine the role that parents' perceptions about social media on family systems can exert within their family functioning, specifically referring to the relationship between collective family efficacy and open communications within family systems with adolescents	Cross-sectional survey of 227 Italian parents who had one or more teenage children, and who use Facebook and WhatsApp to communicate with them	The results confirm the hypothesis, showing that parents' perceptions represent a partial mediator of the relationship between their perceptions about collective family efficacy and openness of communications; nevertheless, the indirect effect of collective family efficacy on openness of family communications via parents' perceptions about the impact of social media on family systems was small, showing that all the direct effects in the model were still bigger.	High

Whiteside et al., 2018	To explore the impact of social media usage on intimate relationships using Facebook as a case study	Cross-sectional survey of 518 Australians examining Facebook usage, relationship satisfaction and household income was undertaken	The results suggest that relationship satisfaction varies based on types of social media usage when controlled for household income. For most respondents, social media usage did not have a negative impact on their relationship. However, results indicated that where their partner was a 'friend' on social media, they were less likely to report concerns relating to social media usage impacting their relationship.	Very high
Tong et al., 2021	To explore the relationship between Internet use during nonworking hours and marriage well- being and channels through which Internet use operates on marital satisfaction.	Longitudinal examination using 2-year nationwide micro panel data	The main results reveal negative effects of Internet experience on overall marriage satisfaction, satisfaction towards spousal contribution in housework and marital stability	High

Sutcliffe et	To investigate	Cross-sectional	Social media time was	High
al., 2018	associations	survey of 249	positively associated with	
	between online	respondents	social satisfaction and the size	
	and offline		of the total network, while the	
	socializing and		number of online contacts	
	groups of social		was positively related to	
	ties		social satisfaction, size of a	
			wider sympathy group and	
			total network	
			size. No effect for loneliness	
			was found.	

Data Analysis

The researcher analyzed data using Braun and Clarke's (2006) thematic analysis process. Thematic analysis was inductive and consisted of identifying and labeling patterns from the data during repeated review and comparison. The steps of the thematic analysis procedure were as follows: (a) reading and rereading the data in total to gain familiarity, (b) identifying patterns of meaning in the data as initial codes, (c) grouping similar initial codes into themes, (d) reviewing and refining the themes, (e) naming and defining the themes to indicate their relevance as answers to the research questions, and (f) creating a presentation of results.

In Phase 1, reading and rereading the data to gain familiarity, the researcher read and reread the included studies (Braun & Clarke, 2006). The researcher ensured that she was deeply familiar with the data and generated some initial thoughts about it from this process. In Phase 2, identifying patterns of meaning in the data as initial codes, the researcher coded all data sections that were relevant to the research questions into smaller chunks of meaning (Braun & Clarke, 2006). The researcher's initial thoughts informed these codes gleaned from Phase 1. In Phase 3,

grouping similar initial codes into themes, the researcher reviewed each of the initial codes, considered how they related to one another, and combined them into more prominent themes (Braun & Clarke, 2006). In this step, all codes were grouped into several thematic categories that showed perceptions expressed by the studies. In Phase 4, reviewing and refining the themes, the researcher examined the developed themes and the chunks of text within each theme and refined the themes, combing themes when appropriate, splitting themes when they grew divergent, and deleting themes that were not adequately supported by the data (Braun & Clarke, 2006). In Phase 5, naming and defining the themes to indicate their relevance as answers to the research questions, the researcher attempted to capture the essence of each theme and considered what the themes meant, what subthemes existed within themes, and how those subthemes interacted with the central theme (Braun & Clarke, 2006). In the final coding stage, creating a presentation of results, the researcher wrote up the findings (Braun & Clarke, 2006). Table 2 below indicates how each study contributed to the themes that addressed the research question. The themes are described in detail in the results section.

Table 2

Studies Contributing to Themes

Study	Conflict/Infidelity	Consume Time	Connection to Family	Casual Connection
Orben & Dunbar, 2017				Х
Clayton, 2014	Х			
Sponcil & Gitimu, 2013			Х	
Papp et al., 2012	Х			
McDaniel et al., 2017	Х			
Yang et al., 2014				Х
Arikewuyo et al., 2020	Х	Х		
Nelson & Salawu, 2017	Х			
Abbasi, 2019		Х		
Procentese et al., 2019	Х			
Whiteside et al., 2018		Х	Х	
Tong et al., 2021		X		
Sutcliffe et al., 2018		Х		

Evidence of Trustworthiness

Evidence of trustworthiness in qualitative research is defined by four components of fidelity: credibility, dependability, confirmability, and transferability (Braun & Clarke, 2006). To outline the evidence of trustworthiness in this study, the researcher demonstrates how each element was attained through the methodological framework of this study.

Credibility. According to Tracy (2019), credibility is the ability to confirm that a researcher has accurately interpreted and represented the data. The current researcher employed

consistency checks in the literature review to develop the foundation of this study. The researcher used consistency checks to establish the study design and theoretical applications of the study's aim. For example, the researcher familiarized herself with the studies to ascertain their quality. In addition, a literature review was utilized to identify relevant features to address the research question. An academic supervisor reviewed the study, and the researcher used their inputs to improve the methods, develop a solid justification of the research design, and strengthen her arguments.

Transferability. The term transferability refers to the ability to interpret and apply the findings of this study beyond the study's sample (Tracy, 2019). The researcher included a description of each analysis and the context and study population to ensure transferability. In doing so, the researcher helped to ensure that individuals not familiar with the study's context may be better able to determine its relevance. In addition, the background section of the study described the phenomenon under investigation in detail to ensure clarity for the readers.

Dependability. The term dependability refers to how other researchers can implement the same methodological plan and obtain similar findings to the original study (Tracy, 2019). Dependability was maintained in this study through triangulation, which consisted of using several data points to draw similar meanings from the analyses. Likewise, the studies included in the review had a diverse group of study participants to ensure the findings of one study could be compared with those of others. A detailed record of the study processes was included to enable future scholars to replicate the work or gain similar results. The researcher described the study's design, implementation, and data to extend its dependability and confirmability further.

Confirmability. The confirmability of the neutrality of a study's findings is measured by limitations inherent to the study's methodology, such as researcher biases, tools used for the analysis, and procedural errors in the analysis phase (Tracy, 2019). In this study, the researcher maintained confirmability providing details of the methodology in Chapter III to aid the reader in determining how far the data and concepts emerging from the analysis procedures may be accepted. The researcher used an audit trail to detail descriptions of the codes, categories, and themes that emerged from the analysis. The details are presented for readers to determine whether the findings align with the data presented.

Findings

In this section, the researcher presents the study findings in response to the research question, which asked how social media influences human relationships and mating patterns. Four primary themes were identified in the data related to the research questions. Table 3 below presents the themes that addressed the research question. Each of these themes is explained in detail in the sections below.

Table 3

Data Themes and Research Question

Research Question	Data Themes
RQ1: How is social media influencing human relationships and mating patterns?	Theme 1: Use of social media may facilitate conflict between romantic partners. Theme 2: Romantic partners who spend more time on social media have limited time to invest in their relationship. Theme 3: Use of social media strengthens relationships with family and friends Theme 4: Use of social media may facilitate the formation of casual connections

Theme 1: Use of social media may facilitate conflict between romantic partners. This theme reflected the various ways in which the use of social media may facilitate conflict between romantic partners. The authors of six of the 13 studies found that social media may expose conflict in the relationship or enable easier infidelity. For example, Clayton (2014) discussed the impact of Twitter and Facebook on romantic relationships. In the quote below, this author argued that more significant amounts of social media use may result in conflicts:

Twitter use could create conflict within the relationship. Suppose high amounts of Twitter use do lead to high amounts of Twitter-related conflict (i.e., arguments pertaining to a partner's Twitter use, etc.) among romantic partners. In that case, it is plausible to speculate that such conflict could lead to unfavorable relationship outcomes such as cheating, breakup, or divorce. (Clayton, 2014, p. 429)

Conflicts in relationships may be directly caused by one of the partners misrepresenting the status of their relationship on social media. For example, Papp et al. (2012) argued that a

conflict may arise if one individual indicates that they are in a relationship while the other partner maintains that they are single. These scholars' findings demonstrated that how partners portrayed their relationships on social media was essential for the relationship functioning, with both males' displays of a partnered status and females' inclusion of their partner in the profile picture linked to greater relationship satisfaction:

Disagreements over Facebook relationship status were uniquely linked with male and female partners' relationship satisfaction. The APIM provided estimates of male and female reports of any Facebook disagreement about their satisfaction and their partner's satisfaction. Male and female verbal conflict scores were correlated covariates of their relationship satisfaction scores. Results indicated that males' and females' Facebook disagreements (accounting for global verbal conflict) were linked with lower levels of females' relationship satisfaction (b = -13.62, t = -2.20, p = 0.028; b = -15.03, t = -2.94, p = 0.003, respectively), but not with males' (p-values > 0.05) satisfaction, thereby partially supporting this hypothesis. The unanticipated gender differences in the associations suggest that men and women may place differential importance on certain public portrayals of the relationship, with future work encouraged to uncover the underpinnings and consequences of these findings. (p. 88)

Other researchers found that social media accounts may contribute to relationship conflict by facilitating emotional infidelity between partners. For example, Nelson and Salawu (2017) argued that by allowing for more accessible social connections, partners might develop inappropriate attachments through social media they may not have otherwise made. The quote below indicates that Facebook facilitated the formation of an emotional connection for a proportion of study participants:

Almost 60% of respondents had witnessed situations where individuals break up, separate, or divorce because of emotional infidelity. Only 26.2% of respondents had not witnessed situations where individuals break up, separate, or divorce because of emotional infidelity. Interestingly, almost 40% of respondents had experienced broken relationships because of emotional infidelity. From Tables 1 and 2, it could be concluded that respondents were highly aware of the practice of emotional infidelity on Facebook. In the same vein, more than 40% indicated that they established relationships with individuals who were of the opposite sex on Facebook that their spouse did not know about. (Nelson & Salawu, 2017, p. 172)

While social media may ease emotional infidelity, McDaniel et al. (2017) found that the lack of investment in the relationship likely predates infidelity assisted by social media. Rather than causing infidelity, social media simply enabled it among individuals who were already less invested in their relationships and prone to infidelity. The quote below indicates that lower relationship satisfaction and greater ambivalence were predictors of social media infidelity:

Lower levels of relationship satisfaction (Model 1; b $\frac{1}{4} \sim 0.03$, p < 0.001; Cohen's f2 $\frac{1}{4}$ 0.08) and higher levels of ambivalence (Model 2; b $\frac{1}{4}$ 0.26, p < 0.001; Cohen's f2 $\frac{1}{4}$ 0.15) predicted greater social media infidelity related behavior. Greater infidelity related behavior on social networking was significantly related to lower relationship satisfaction and greater ambivalence, as well as greater attachment avoidance and anxiety in both women and men. (McDaniel et al., 2017, p. 16)

Additionally, Arikewuyo, Lasisi, Abdulbaqi, Omoloso, and Arikewuyo (2020) found that social media exposed conflict rather than directly caused it. These authors argued that a couple may disagree on what should be shared and may argue over aspects of social media usage. In this way, however, social media was like any other instigator of a conflict. In the quote below, these scholars posited that the decision to withhold information about the relationship on social media may be misinterpreted as a desire to attract the opposite sex:

This study found that social media usage may ultimately lead to conflicts in romantic partnerships. For example, expression and privacy may be associated with the level of information an individual shares on social media. While a romantic partner sees such as usual or a personal choice, the other may begin to infer specific negative interpretations of the act. In this case, their views, opinions, and perceptions may contradict each other, leading to conflict. Also, while one of the partners may decide to keep their Facebook status as "single/not in a relationship" or not share romantic pictures of their partners online, the other partner may view such action as a means of attracting the opposite sex, which may ultimately escalate the conflict in the relationship. In this case, there is a contradiction in their perception of the use of social media and what information they share with the public. (Arikewuyo et al., 2020, p. 5)

In summary, there are various ways in which social media may facilitate conflicts between romantic partners through misrepresentation of the relationship in their status or profile pictures, keeping the relationship private, and facilitating emotional infidelity. In addition, the findings of this review demonstrate that other factors predict the likelihood of emotional infidelity on social media, including lower relationship satisfaction and ambivalence. Therefore, social media does not cause conflict, but merely instigates it.

Theme 2: Romantic partners who spend more time on social media have limited time to invest in their relationship. The second theme demonstrated that partners who spend more time on social media have limited time to invest in their relationships. Five of the 13 articles found that partners who spend a lot of time on social media spend less time on house chores and investing in their partnerships. Tong et al. (2021) stipulated that Internet usage decreases relationship satisfaction because it prevents partners from participating in other necessary work, such as household chores. While Internet usage is not directly synonymous with social media usage, it stands to reason that someone who uses social media is likely to spend at least a certain amount of time online. The quote below demonstrates that spending more time on the Internet decreased marital satisfaction and satisfaction with spousal housework involvement:

We consistently found negative marginal effects of internet usage experience on marital satisfaction and satisfaction with spousal housework contribution. However, our findings do not support a negative effect of internet usage on satisfaction toward spousal economic contribution. One more hour online per week can significantly decrease marital satisfaction by 0.0024 points and satisfaction with spousal housework contribution by 0.0044 points. (Tong et al., 2021, p. 12)

Whiteside et al. (2018) also found that social media usage was associated with poorer relationship satisfaction in the other partner. This was only the case, however, when one partner used social media more than the other: "In low-income households only, participants seemed less satisfied with their relationship when the partner is a heavier Facebook user than them; 39.0% of

low household income participants with heavy Facebook using partners were unsatisfied with their relationships" (Whiteside et al., 2018, p. 9).

In addition, Arikewuyo et al. (2020) found that relationship satisfaction could decrease when one partner spends more time on social media than the other partner. These authors argued that when individuals spend more time on social media, they are likely to appear distracted or less available to the partner who spends less time on social media. The following quote indicates how social media may lead to a perceived lack of attention for the partner who spends less time on social media:

According to findings in the study, when romantic partners use social media, there is a high tendency to engage in various activities that may lead to conflict in such relationships. Individuals may become distracted and pay significant attention to activities and events on social media, such as chatting, reading news feeds, and commenting on pictures. Some individuals may also become attached to their social media platforms and pay little or no attention to their partner's emotional, physical, and psychological needs. (Arikewuyo et al., 2020, p. 6)

Abbasi (2019) suggested that when individuals invest a significant amount of time in social media, it could lead to dissatisfaction with their romantic partner. The pathway to marital dissatisfaction was through many social media accounts, more social media friends, and low commitment to the relationship. In the quote below, this author identified the relationship between time spent on social media and lower commitment to the relationship:

Participants who reported higher SNSs addiction scores also reported significantly more SNSs accounts. This finding that a higher number of SNSs accounts is related to low commitment could be because an increased number of SNSs accounts may expose users to more online friends. Therefore, the susceptibility of time and emotional investments with the extra-dyadic partner(s) increases with the total number of SNSs accounts.

(Abbasi, 2019, p. 278)

The findings of this review indicate that romantic partners who spend more time on social media have less time for their partners and other activities that were significant to their partners. A partner's time for household chores, for instance, is reduced by the time they spend on social media. In addition, the partners of those who spend more time on social media are likely to feel neglected because their partner has limited time to meet their emotional, physical, or psychological needs.

Theme 3: Use of social media strengthens relationships with family and friends.

Theme 3 indicates that social media can strengthen relationships with family and friends. Two of the 13 studies found that social media led to improved relationships with family and friends. For example, Sponcil and Gitimu (2013) argued that social media facilitated communication with family and friends. In the quote below, the researcher established an association between the use of social media and communication with family and friends:

The survey results indicated the importance of social media use as a communication tool with friends and family...Of the students included in the sample, 50% reported communicating with family and friends on social networking sites every day. Other students reported using sites to communicate with family and friends a few days a week (40%), every few weeks (8%), and less often (2%). Pearson correlation was conducted to see a relationship between social media and communication with family and friends.

There was a .586 Pearson correlation between the use of social media and communication with family and friends. (Sponcil & Gitimu, 2013, p. 8)

In addition, Whiteside et al. (2018) reported that the social satisfaction of social media users was higher when they used social media to maintain a connection with their families. These researchers cited that participants who were low-income earners and unable to keep in touch with family through social media had less satisfaction in their relationships. The quote below links the use of social media to a connection to family and friends and satisfaction with the relationships:

Another critical difference in relationship satisfaction was whether respondents used Facebook to keep in touch with family and friends. In the low-income category, 47.7% of respondents who did not use Facebook in this way were dissatisfied with their relationships. Keeping in touch with friends and family is positively related to satisfaction. (Whiteside et al., 2018, p. 9)

In summary, social media can positively impact relationships when used to communicate. The findings focus on relationships between study participants and their families and friends. Communication is a crucial ingredient for good relationships and may explain the associated satisfaction with relationships.

Theme 4: Use of social media may facilitate the formation and preservation of casual connections. Theme 4 focused on the use of social media to form casual connections. The authors of two studies in this review found that social media is an essential catalyst for casual relationships. The casual relationships allowed individuals to assess potential partners in a way that felt safe. Orben and Dunbar (2017) indicated that participants connected with their partners through social media first, and that introduction allowed them to progress to more personal forms

of communication (e.g., talking on the phone) without perceiving that they were becoming involved too quickly. The quote below describes the progression in relationships from a casual connection to more intimate communication: "We found that high intimacy posts or negative posts decreased the social attractiveness of the self-discloser. The perception of the posts and the receiver's feelings of homophily to the self-discloser mediated this relationship" (Orben & Dunbar, 2017, p. 2).

In addition, Yang, Brown, and Braun (2014) found that social media played an essential role in allowing people to have casual connections. These casual connections allowed users to stay connected with individuals without investing additional intimacy and time in relationships. These relationships did not detract from their more critical relationships, but instead allowed them to be connected to a greater number of people casually. These researchers argued that Facebook was ideal for casual and superficial communication:

Our participants frequently mentioned two features when discussing why and how they used Facebook. The first one was its impersonality, which was explained from three perspectives. First, due to its public nature, Facebook hindered intimate conversation, and thus interaction on the platform was casual and superficial. As reported by our participants, the challenges of not knowing what to say and the unwillingness to engage in ongoing, in-depth conversations with acquaintances were consistent with the characteristics of communication patterns at this stage of relationship development: narrow topics, limited interaction, and a low level of openness. Facebook appeared to be a good shelter from overly intense communication. (Yang et al., 2014, p. 10)

This theme indicates that social media, specifically Facebook is ideal for casual relationships. It also shows, however, that these casual relationships serve the purpose of aiding individuals to remain connected to others without investing in intense communication. Where intimacy is desired, the individuals involved may graduate to other forms of communication, such as phone calls.

Summary

Through this qualitative meta-synthesis study, the researcher aimed to understand how social media was influencing human relationships and mating patterns. The researcher developed one research question to address the study's purpose, which was to explore how the use of social media was influencing human relationships. Four data themes were identified to address the research question. Theme 1 discussed how social media use might facilitate a conflict between romantic partners. Social media may instigate conflict between married partners by misrepresenting their relationship in their status or profile pictures, keeping their relationship private, and facilitating emotional infidelity. In addition, the findings demonstrated the likelihood of emotional infidelity on social media is influenced by lower relationship satisfaction and ambivalence.

The second theme established that partners who spend more time on social media have limited time to invest in their relationships. For instance, partners who spend more time on social media have limited time for household chores. In addition, the partners of those who spend more time on social media are likely to feel neglected because their partner have limited time to meet their emotional, physical, or psychological needs. Theme 3 specifies that social media can strengthen relationships with family and friends. When individuals use social media to communicate with family and friends, it can positively impact their relationships. Communication is a crucial ingredient for good relationships and may explain the associated satisfaction within relationships.

Theme 4 centered on using social media to form and maintain casual connections. This theme indicates that the use of social media, specifically Facebook, is ideal for casual relationships. It also shows, however, that these casual relationships serve the purpose of aiding individuals to remain connected to others without investing in intense communication. Where intimacy is desired, the individuals involved may graduate to other forms of communication, such as phone calls. In Chapter V, the researcher focuses on the study results' implications and offers recommendations for future research. Also included in Chapter V are the limitations and conclusions of the study.

CHAPTER V: INTERPRETATIONS, RECOMMENDATIONS, AND CONCLUSION Introduction

The use of social media has been linked to negative consequences on interpersonal relationships (Helm et al., 2020; Lee, 2020; Wilson et al., 2020). These effects, however, have not been adequately documented. Through this qualitative meta-analysis study, the researcher aimed to understand how social media impacts human relationships and mating patterns. The researcher developed one research question to address the study purpose, which was to explore how the use of social media influences human relationships.

This study was a meta-synthesis, which is an international and coherent approach for analyzing data across qualitative studies (Erwin et al., 2011). The researcher obtained a sample of 13 peer-reviewed studies through a meta-synthesis comprised of in-depth information regarding the purpose of the study. The selected studies were published in or after 2017. The researcher used three approaches in the study's analysis process: meta-synthesis analysis (Lachal et al., 2017), content analysis, and thematic analysis (Braun & Clarke, 2006).

Four data themes were identified to address the research question. The first theme reflected how social media use might facilitate conflict between romantic partners. The findings indicated that individuals might use social media to instigate conflict with partners by misrepresenting their relationship in their social media status or profile pictures, keeping their relationship private, and facilitating emotional infidelity. In addition, the findings demonstrated that the likelihood of emotional infidelity on social media is influenced by lower relationship satisfaction and ambivalence. The second theme established that partners who spend more time on social media have limited time to invest in their relationships. For instance, partners who spend more time on social media have limited time for household chores. In addition, the partners of those who spend more time on social media are likely to feel neglected because their partner has limited time to meet their emotional, physical, or psychological needs.

Theme 3 specified that social media can strengthen relationships with family and friends. When individuals use social media to communicate with family and friends, it can positively impact their relationships. Communication is a crucial ingredient for good relationships and may explain the associated satisfaction within relationships where family members communicate better.

Theme 4 centered on using social media to form and maintain casual connections. This theme indicated that social media, specifically Facebook is ideal for casual relationships. It also shows, however, that these casual relationships serve the purpose of aiding individuals to remain connected to others without investing in intense communication. Where intimacy is desired, the individuals involved may graduate to other forms of communication, such as phone calls. This chapter comprises details of the discussion of the study findings, limitations, recommendations, and implications. The chapter ends with a conclusion.

Interpretation of the Findings

The researcher sought to answer the following question: How is social media influencing human relationships and mating patterns? The researcher identified the following four primary themes: (a) use of social media may facilitate conflict between romantic partners, (b) romantic partners who spend more time on social media have limited time to invest in their relationship, (c) use of social media strengthens relationships with family and friends, and (d) use of social media may facilitate the formation of casual connections.

Theme 1: Use of social media may facilitate conflict between romantic partners. The findings of six of the 13 studies examined in this review indicated that social media may accelerate conflict in the relationship. For instance, Clayton (2014) stated that when a partner spends a lot of time on social media platforms such as Facebook, Twitter, and Instagram, it may lead to conflicts with their romantic partner and subsequently create unfavorable relationship outcomes such as infidelity, breakup, or divorce.

In addition, conflicts may occur over how a partner portrays their relationship on social media. Papp et al. (2012) argued that how partners represent their relationships on social media is essential for the relationship functioning. Both males' displays of a partnered status and females' inclusion of their partner in the profile picture are linked to greater relationship satisfaction. Furthermore, the results indicated that males' and females' Facebook disagreements were related to lower levels of females' satisfaction in the relationship, but not to males' satisfaction (Papp et al., 2012).

Nelson and Salawu (2017) cited that social media facilitates access to more social connections, explaining that partners may use these opportunities to form inappropriate attachments. Moreover, McDaniel et al. (2017) argued that while social media may ease emotional infidelity, the lack of investment in the relationship likely predates infidelity. Social media may aid individuals who are already less invested in their relationships and prone to infidelity. Arikewuyo et al. (2020) shared similar ideas, stating that social media exposes conflict rather than causing it directly. These authors further argued that couples may disagree regarding

what should be shared and may also argue about the aspects of the use of social media. Ariwekuyo et al. cautioned that the fact that an individual interacts with members of the opposite sex online does not necessarily lead to infidelity. They identified factors that mediate between social media and conflict in romantic relationships, including infidelity and jealousy.

In summary, the study findings implied that social media usage might facilitate conflicts in romantic relationships by misrepresenting the relationship in their status or profile pictures, keeping the relationship private, and facilitating emotional infidelity The findings also demonstrate that lower relationship satisfaction and ambivalence may predict the likelihood of emotional infidelity on social media. Therefore, social media does not cause conflict, but merely instigates it.

The body of previous empirical literature is consistent with the current study findings. For instance, Abbasi (2019) reported that social media interactions with virtual friends consume a user's attention and distract them from spending quality time with their romantic partner. Abbasi examined the relationship between social media addiction and infidelity-related behaviors using a sample of 365 partners. This author's results indicated that social networking sites addiction significantly predicted social networking sites' infidelity-related behaviors. Abbasi also posited that online interactions with virtual friends consume users' attention and distract them from spending time with their significant other, which leads to adverse relationship outcomes. Charoensukmongkol and Sasatanun (2017) reported similar findings, pointing out that social media users from low-income families had high chances of arguing with their partners about their time on social media. The current study's findings are in contrast with Nelson and Salawu (2017). They argued that social media, specifically Facebook, promotes or reinforces emotional infidelity when people interact with the opposite sex. In the current study, Arikewuyo et al. (2020) argued that interacting with the opposite sex on social media does not necessarily lead to infidelity.

Theme 2: Romantic partners who spend more time on social media have limited time to invest in their relationship. The authors of five of the 13 reviewed articles found that people who spend a lot of time on social media may experience dissatisfaction in a relationship because of the amount of time it consumes. When individuals spend more time on social media, their romantic partners may feel that they are less invested in their relationship. For example, Tong et al. (2021) reported that satisfaction in relationships is decreased by Internet usage because Internet usage prevents partners from engaging in other necessary work such as household chores. The findings from the analysis of the studies consistently revealed marginal adverse effects of the use of Internet experience on marital satisfaction and spousal household contribution satisfaction. In the survey conducted by Whiteside et al. (2018), the results showed that social media usage correlated with poorer relationship satisfaction in the other partners; however, this was only the case where one partner used social media more than the other.

Additionally, Whiteside et al. (2018) and Arikewuyo et al. (2020) found that satisfaction in a relationship could decrease when one partner spends more time on social media than another partner. When a romantic partner uses more time on social media, there is a high tendency to participate less in other activities, leading to conflict in the relationship. Individuals become distracted and may pay significant attention to activities on social media. Abbasi (2019) also found that when partners invest a significant amount of time in social media, it could lead to relationship dissatisfaction as a result of a lack of availability to their partners and the increase in the chance of emotional infidelity. This suggests that increased use of social media by partners could lead to grown online romantic friends, potentially contributing to higher levels of emotional infidelity on social media platforms such as Facebook and Twitter and leading to dissatisfaction in relationships.

These study findings are in alignment the current empirical literature. For example, Irani and Rezaei (2019) investigated the effect of social networks on marital relationship quality of life in Shiraz in 2018. Using a descriptive correlative method and statistical approaches, Irani and Rezaei used 425 teams of social networking members in Shiraz. Using SPSS for data analysis, they reported that social media had a significant impact on marital relationships and the quality of life of couples in Shiraz. Further, Tong et al. (2021) explored the relationship between Internet usage during nonworking hours and marriage well-being and channels through which Internet use operated on marital satisfaction. Using 2-year nationwide micro panel data, Tong et al. established the adverse effects of Internet experience on overall marriage satisfaction, satisfaction towards spousal contribution in housework, and marital stability.

Theme 3: Use of social media strengthens relationships with family and friends. The researchers of two of the 13 reviewed studies found that social media could improve relationships by allowing users to remain connected to their respective families. From these studies, those individuals who reported that they use social media to stay connected to their families also reported greater social satisfaction in their families. For example, Sponcil and Gitimu (2013) asserted the importance of social media in maintaining and fulfilling family connections. The findings indicated that social media is an essential communication tool with

friends and family. The Pearson correlation was conducted to verify any relationship between social media and communication with family and friends. According to the study findings, there is a significant correlation between social media usage and communication with family and friends. In addition, Sponcil and Gitimu and Whiteside et al. (2018) indicated that social media users' social satisfaction is higher when they use social media to maintain a connection with their families. The results of their analysis revealed that 47.7% of respondents who did not use Facebook in this way were dissatisfied with their relationships. Overall, data from these two studies indicated that keeping in touch with friends and family is positively related to satisfaction.

Current empirical literature supports the current study findings. For instance, Benetoli et al. (2018) found that the parent-child relationship could be improved through text messaging. Participants reported that communication technology helped them develop something in common with their children. Parents can utilize social media to learn about the interests of their children and what they are doing based on what they post and share online (Chen & Li, 2017).

In contrast, Alnjadat et al. (2019) argued that social media can be addictive among young adults, thus breaking the parent-child relationship. In addition, overuse of social media disconnects children from their parents; they grow away from parents as they find comfort in their online community. In addition, Chen and Li (2017) pointed out that easy access to smartphones allows children to join different social media sites, which distract them from their schoolwork. Poor performance in school, in turn, affects the relationship between parents and their children.

Theme 4: Use of social media may facilitate the formation and preservation of casual connections. Two out of the 13 studies selected reported that social media might be an essential route for maintaining casual connections. According to the results, the casual relationships allowed individuals to assess potential partners in ways that felt safe. For example, Orben and Dunbar (2017) stressed the importance of social media in modern dating. The results of their analysis revealed that people reported connections with partners through social media first. The introduction allowed them to progress to more personal forms of communication without becoming involved too quickly (Orben & Dunbar, 2017). Likewise, Yang et al. (2014) cited that social media plays an essential role in allowing people to have casual connections. Such connections allow users to remain connected without investing additional intimacy and time in a relationship.

The current study findings are consistent with the current empirical literature. For example, Ryan et al. (2017) reported that commitment to romantic relationships was very high. Partners spend more time and resources to stay close to each other. It is more challenging to have a romantic relationship without sharing personal information. Thus, the development of the relationships depended on how open the partners were with each other (Ryan et al., 2017).

Further, sharing information improved communication, enhancing relationship stability (Ryan et al., 2017). Finally, emotional connection and support are essential factors in every person's social support. For instance, Rosenthal et al. (2016) reported that partners rely on one another for emotional support, which may be achieved through social media communication.

Limitations of the Study

The current study had several limitations. The first limitation of the study was that the study used a relatively small number of included studies. As a result, the effects of social media on relationships were limited to 250 unique articles, of which only 13 articles passed the criteria. Thus, the generalizability of the study findings was limited because of this research's methodology, design, and methodological assumption. The researcher addressed this limitation by including relevant articles of high quality.

The second study limitation was that the researcher used secondary data, implying that she could not verify the authenticity of the data collected in each study and ascertain the use of valid data collection measures. The researcher selected data from reputable, peer-reviewed journals and articles in order to address this limitation.

Recommendations

Future studies should be conducted on the relationship between social media use and relationships, using large sample sizes to optimize representation and generalizability. The use of primary data sources may enable future studies to achieve greater credibility than where secondary data are utilized.

The current findings indicate that sex and age are essential factors in shaping social media use and its influence on relationships. Further investigations are required to explore gender and age differentials in the relationship between social media use and romantic and nonromantic relationships. Also, future scholars should use mixed-method research designs to provide in-depth analysis and promote the generalizability of their findings.

Implications

This research study had several research implications. The social significance of this study is that the local authorities may use the findings to understand how social media may lead to conflicts among couples in the community and devise interventions that may prevent family breakups. Such interventions may include creating awareness about social media's positive and negative effects on romantic relationships. In addition, local authorities such as government agencies may use the result of this study to advise families on the positive impact of social media, such as facilitating family cohesion and integration.

Families may also use these results to understand better the effects of social media on the relationships between parents and their children. Parents may utilize the positive impacts of social media to improve communication with their children and better understand their children's experiences. In addition, parents may use the study findings to safeguard their children from the negative impacts of social media, such as neglecting their studies by limiting the amount of time they spend on social media. In addition, parents may use the findings to inform their children of the possible risks of unsupervised social media use on their well-being. Similarly, parents may become aware of the negative impacts of their excessive use of social media on the quality of their time with their families.

Couples in romantic relationships may use the findings to prevent future conflicts in their relationships. The results may allow couples to become aware and discuss their positive and negative experiences with social media. Where conflicts exist, the couples may have an opportunity to resolve the underlying issues such as jealousy and infidelity and avoid other adverse outcomes.

Conclusion

The problem addressed in this study was that it is unclear how social media influences human relationships and mating patterns. Through this qualitative meta-analysis study, the researcher aimed to understand how social media affected human relationships and mating patterns. A comprehensive systematic review of the literature was conducted using several databases such as Ebook Collection, Google Scholar, MEDLINE, PsychINFO, PubMed, and ScienceDirect. Sample data from 13 peer-reviewed articles and journals were used for this study and analyzed using survey methodology and Braun and Clarke's (2006) thematic analysis process.

The findings demonstrate that social media can positively and negatively affect human relationships. For instance, the use of social media does not necessarily guarantee that there will be a conflict between romantic partners. Conflict can be instigated, however, when individuals use social media to misrepresent their relationship in their social media status or profile pictures, keep their relationship private without partner agreement, and facilitate emotional infidelity. The researcher identified the mediating factors that may predict conflict in romantic relationships, including jealousy, monitoring a partner's social media use, and infidelity.

The findings also demonstrate that spending too much time on social media may reduce the time and attention afforded to a romantic partner and household chores. Subsequently, conflicts may occur when the partner who spends less time on social media feels neglected because their partner has limited time to meet their emotional, physical, or psychological needs.

In contrast, social media may positively impact relationships between parents and children when utilized to improve communication. Communication is a crucial ingredient for a good relationship and is associated with greater satisfaction within relationships. Without moderation, however, social media use may negatively impact family time and lead to conflicts. For instance, children who spend a lot of time on social media may have poor academic performance, leading to disputes with their parents.

Finally, social media plays a part in forming and maintaining connections between individuals. The current findings indicate that social media is essential for starting and keeping relationships casual with limited investment in intense communication. Individuals who desire intimacy and more intense contact with others may explore other, more appropriate forms of communication.

REFERENCES

- Abbasi, I. S. (2019). Social media addiction in romantic relationships: Does user's age influence vulnerability to social media infidelity? *Personality and Individual Differences*, *139*, 277–280. doi:10.1016/j.paid.2018.10.038
- Adams, K. A., & Lawrence, E. K. (2019). *Research methods, statistics, and applications*. Los Angeles, CA: SAGE.
- Alnjadat, R., Hmaidi, M. M., Samha, T. E., Kilani, M. M., & Hasswan, A. M. (2019). Gender variations in social media usage and academic performance among the students of University of Sharjah. *Journal of Taibah University Medical Sciences, 14*(4), 390–94. doi:10.1016/j.jtumed.2019.05.002
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, 64, 287–293. doi:10.1016/j.addbeh.2016.03.006
- Arikewuyo, A. O., Lasisi, T. T., Abdulbaqi, S. S., Omoloso, A. I., & Arikewuyo, H. O. (2020).
 Evaluating the use of social media in escalating conflicts in romantic relationships. *Journal of Public Affairs*, 22(1), e2331. doi:10.1002/pa.2331
- Baxter, I., Craig, A., Cotton, E., & Liney, T. (2019). Social media addiction: An industry of unreliability. *British Medical Journal*, *365*, 14281. doi:10.1136/bmj.14281
- Benetoli, A., Chen, T. F., & Aslani, P. (2018). How patients' use of social media impacts their interactions with healthcare professionals. *Patient Education and Counseling*, 101(3), 439–444. doi:10.1016/j.pec.2017.08.015

- Berry, N., Emsley, R., Lobban, F., & Bucci, S. (2018). Social media and its relationship with mood, self-esteem and paranoia in psychosis. *Acta Psychiatrica Scandinavica*, 138(6), 558–570. doi:10.1111/acps.12953
- Booker, C. L., Kelly, Y. J., & Sacker, A. (2018). Gender differences in the associations between age trends of social media interaction and well-being among 10-15-year-olds in the UK.
 BMC Public Health, 18, 321. doi:10.1186/s12889-018-5220-4
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. doi:10.1191/1478088706qp063oa

Charoensukmongkol, P., & Sasatanun, P. (2017). Social media use for CRM and business performance satisfaction: The moderating roles of social skills and social media sales intensity. *Asia Pacific Management Review*, *22*(1), 25–34. doi:10.1016/j.apmrv.2016.10.005

- Chen, H. T., & Li, X. (2017). The contribution of mobile social media to social capital and psychological well-being: Examining the role of communicative use, friending and selfdisclosure. *Computers in Human Behavior*, 75, 958–965. doi:10.1016/j.chb.2017.06.011
- Chotpitayasunondh, V., & Douglas, K. M. (2016). How "phubbing" becomes the norm: The antecedents and consequences of snubbing via smartphone. *Computers in Human Behavior*, 63, 9–18. doi:10.1016/j.chb.2017.06.011
- Chukwuere, J. E., & Bonga, S. O. Y. (2018). An exploration of the influence of social media on university students' relationships. In WMSCI 2018-22nd World Multi-Conference on Systemics, Cybernetics and Informatics, Proceedings (Vol. 1, pp. 113–118).

- Chukwuere, J. E., & Chukwuere, P. C. (2017). The impact of social media on social lifestyle: A case study of university female students. *Gender and Behaviour*, *15*(4). Retrieved from https://hdl.handle.net/10520/EJC-c1e3ae5f6
- Clark, C. J., Spencer, R. A., Shrestha, B., Ferguson, G., Oakes, J. M., & Gupta, J. (2017). Evaluating a multi-component social behaviour change communication strategy to reduce intimate partner violence among married couples: study protocol for a cluster-randomized trial in Nepal. *BMC Public Health*, *17*(1), 75. doi:10.1186/s12889-016-3909-9
- Clayton, R. B. (2014). The third wheel: The impact of Twitter use on relationship infidelity and divorce. *Cyberpsychology, Behavior, and Social Networking*, *17*(7), 425–430. doi:10.1089/cyber.2013.0570
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: SAGE.
- Dean, B. (2021). Social network usage & growth statistics: How many people use social media in 2021? *Backlinko*. Retrieved from https://backlinko.com/social-media-users
- Demircioğlu, Z. I., & Göncü Köse, A. (2021). Effects of attachment styles, dark triad, rejection sensitivity, and relationship satisfaction on social media addiction: A mediated model. *Current Psychology*, 40, 414–428. doi:10.1007/s12144-018-9956-x
- Dempsey, A. E., O'Brien, K. D., Tiamiyu, M. F., & Elhai, J. D. (2019). Fear of missing out (FoMO) and rumination mediate relations between social anxiety and problematic
 Facebook use. *Addictive Behaviors Reports*, *9*, 100150. doi:10.1016/j.abrep.2018.100150

- Devlin, J. M., Hill, L., Berry, J., Felder, K., & Wilson, C. (2019). Therapeutic practices for sexually abused children and adolescents: Resources for marriage, family, and couples' counselors. *Family Journal*, 27(4), 359–365. doi:10.1177/1066480719844017
- Dobson-Lohman, E. (2020). Courtship practices, romantic relationship initiation, and mate selection in the online dating environment. *Journal of Research in Gender Studies*, *10*(1), 59–65. Retrieved from https://addletonacademicpublishers.com/journal-of-research-in-gender-studies
- Durães, R. S. S., Khafif, T. C., Lotufo-Neto, F., & de Pádua Serafim, A. (2020). Effectiveness of cognitive-behavioral couple therapy on reducing depression and anxiety symptoms and increasing dyadic adjustment and marital social skills: An exploratory study. *Family Journal, 28*(4), 344–355. doi:10.1177/1066480720902410
- Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*, 63, 509–516. doi:10.1016/j.chb.2016.05.079
- Erwin, E. J., Brotherson, M. J., & Summers, J. A. (2011). Understanding qualitative meta synthesis: Issues and opportunities in early childhood intervention research. *Journal of Early Intervention*, 33(3), 186–200. doi:10.1177/1053815111425493
- Fansher, A. K., & Eckinger, S. (2020). Tinder tales: An exploratory study of online dating users and their most interesting stories. *Deviant Behavior*, 42(9), 1194–1208. doi:10.1080/01639625.2020.1734170

- Febrianita, R., & Hardjati, S. (2019). The power of interpersonal communication skill in enhancing service provision. *Journal of Social Science Research*, *14*, 3192–3199. doi:10.24297/jssr.v14i0.8150
- Hartmann, M., Datta, S., Browne, E. N., Appiah, P., Banay, R., Caetano, V.... Srinivasan, K.
 (2020). A combined behavioral economics and cognitive behavioral therapy intervention to reduce alcohol use and intimate partner violence among couples in Bengaluru, India: Results of a pilot study. *Journal of Interpersonal Violence*.
 doi:10.1177/0886260519898431
- Hayes, J. L., Shan, Y., & King, K. W. (2018a). The interconnected role of strength of brand and interpersonal relationships and user comment valence on-brand video sharing behaviour. *International Journal of Advertising*, *37*(1), 142–164. doi:10.1080/02650487.2017.1360576
- Hayes, R. A., Carr, C. T., & Wohn, D. Y. (2016). One-click, many meanings: Interpreting paralinguistic digital affordances in social media. *Journal of Broadcasting & Electronic Media*, 60(1), 171–187. doi:10.1080/08838151.2015.1127248
- Hayes, R. A., Wesselmann, E. D., & Carr, C. T. (2018b). When nobody "likes" you: Perceived ostracism through paralinguistic digital affordances within social media. *Social Media on Society*, 4(3), 2056305118800309. doi:10.1177/2056305118800309
- Helm, B., Ven, T. V., & Welser, H. T. (2020). The electric hookup: Individual and social risks related to hookup app use among emerging adults. *Recent Advances in Digital Media Impacts on Identity, Sexuality, and Relationships*. doi:10.4018/978-1-7998-1063-6.ch004

- Herron, D. (2020). Design for relationship breakups: Curation of digital possessions (Doctoral dissertation, Unification Theological Seminary). UTS Digital Thesis Collection.
 Retrieved from http://hdl.handle.net/10453/149332
- Holte, A. J., & Ferraro, F. R. (2020). Anxious, bored, and (maybe) missing out: Evaluation of anxiety attachment, boredom proneness, and fear of missing out (FOMO). *Computers in Human Behavior*, *112*, 106465. Retrieved from https://www.journals.elsevier.com/computers-in-human-behavior
- Huang, J., & Zhou, L. (2018). Timing of web personalization in mobile shopping: A perspective from Uses and Gratifications Theory. *Computers in Human Behavior*, 88, 103–113.
 Retrieved from https://www.journals.elsevier.com/computers-in-human-behavior
- Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No more FOMO: Limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology*, 37(10), 751–768. doi:10.1521/jscp.2018.37.10.751
- Irani, Z. B., & Rezaei, T. (2019). The effects of social networking on marital relationships and couples quality of life (Case study: Couples of social networking members in Shiraz). *Journal of Social Sciences and Humanities Research*. doi:10.24200/ jsshr.vol7iss02pp%25p
- Jayaraman, S. K., Creech, C., Robert, L. P., Jr., Tilbury, D. M., Yang, X. J., Pradhan, A. K., & Tsui, K. M. (2018). Trust in AV: An uncertainty reduction model of AV-pedestrian interactions. In *Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 133–134).

- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509–523. Retrieved from https://www.jstor.org/stable/2747854
- Kwok, I., & Wescott, A. B. (2020). Cyberintimacy: A scoping review of technology-mediated romance in the digital age. *Cyberpsychology, Behavior, and Social Networking, 23*(10), 657–666. doi:10.1089/cyber.2019.0764
- Lachal, J., Revah-Levy, A., Orri, M., & Moro, M. R. (2017). Meta synthesis: An original method to synthesize qualitative literature in psychiatry. *Front Psychiatry*, *8*, 269. doi:10.3389/ fpsyt.2017.00269
- Lee, T. Y. (2020). Designing digital positive youth development games for the enhancement of on-and-offline interpersonal relationships among adolescents. In *Positive Youth development: Digital game-based learning* (pp. 49–72). Hauppauge, NY: Nova Science.
- Leedy, P. D., & Ormrod, J. E. (2019). *Practical research: Planning and design* (12th ed.). Boston, MA: Pearson Education.
- McCartney, J., & Hellier, S. (2021). Match, chat, mate: A narrative analysis of online dating and sexual experiences among women. *Journal for Nurse Practitioners*, *17*(4), 394–398. doi:10.1016/j.nurpra.2020.12.030
- McDaniel, B. T., Drouin, M., & Cravens, J. D. (2017). Do you have anything to hide? Infidelityrelated behaviors on social media sites and marital satisfaction. *Computers in Human Behavior, 66*, 88–95. doi:10.1016/j.chb.2016.09.031
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

- Moreno, M. A., & D'Angelo, J. (2019). Social media intervention design: Applying an affordances framework. *Journal of Medical Internet Research*, *21*(3), e11014. doi:10.2196/11014
- Moura, R. R., & Gonzaga, M. O. (2017). Temporal variation in size-assortative mating and male mate choice in a spider with amphisexual care. *Science of Nature*, 104, 28. doi:10.1007/ s00114-017-1448-6
- Mpepo, V. I. (2017). Impact of social media on interpersonal communication relationships amongst couples in Tanzania: A case of Dar Es Salaam region (Unpublished master's thesis, Open University of Tanzania).
- Naab, T. K., Karnowski, V., & Schlütz, D. (2019). Reporting mobile social media use: How survey and experience sampling measures differ. *Communication Methods and Measures*, 13(2), 126–147. doi:10.1080/19312458.2018.1555799
- Nelson, O., & Salawu, A. (2017). Can my wife be virtual-adulterous? An experiential study on Facebook, emotional infidelity and self-disclosure. *Journal of International Women's Studies*, 18(2), 15. Retrieved from https://vc.bridgew.edu/jiws/
- Nilsson, A., Magnusson, K., Carlbring, P., Andersson, G., & Hellner, C. (2020). Behavioral couples therapy versus cognitive behavioral therapy for problem gambling: A randomized controlled trial. *Addiction*, *115*(7), 1330–1342. doi:10.1111/add.14900
- Nisar, T. M., Prabhakar, G., & Strakova, L. (2019). Social media information benefits,
 knowledge management and smart organizations. *Journal of Business Research*, 94, 264–272. doi:10.1016/j.jbusres.2018.05.005

- Odoom, R., Anning-Dorson, T., & Acheampong, G. (2017). Antecedents of social media usage and performance benefits in small-and-medium-sized enterprises (SMEs). *Journal of Enterprise Information Management, 30*(3). doi:10.1108/JEIM-04-2016-0088/full/html
- Okdie, B. M., & Ewoldsen, D. R. (2018). To boldly go where no relationship has gone before:
 Commentary on interpersonal relationships in the digital age. *Journal of Social Psychology*, *158*(4), 508–513. doi:10.1080/00224545.2018.1473835
- Orben, A. C., & Dunbar, R. I. (2017). Social media and relationship development: The effect of valence and intimacy of posts. *Computers in Human Behavior*, 73, 489–498. Retrieved from https://www.journals.elsevier.com/computers-in-human-behavior
- O'Sullivan, P. B., & Carr, C. T. (2018). Mass personal communication: A model bridging the mass-interpersonal divide. *New Media & Society*, 20(3), 1161–1180.
 doi:10.1177/1461444816686104
- Palmgreen, P., Wenner, L. A., & Rayburn, J. D. (1980). Relations between gratifications sought and obtained: A study of television news. *Communication Research*, 7(2), 161–192. doi:10.1177/009365028000700202
- Papp, L. M., Danielewicz, J., & Cayemberg, C. (2012). "Are we Facebook official?"
 Implications of dating partners' Facebook use and profiles for intimate relationship satisfaction. *Cyberpsychology, Behavior, and Social Networking*, 15(2), 85–90. doi:10.1089/cyber.2011.0291
- Petrychyn, J., Parry, D. C., & Johnson, C. W. (2020). Building community, one swipe at a time: Hook-up apps and the production of intimate publics between women. *Health Sociology Review*, 29(3), 249–263. doi:10.1080/14461242.2020.1779106

- Pitcho-Prelorentzos, S., Heckel, C., & Ring, L. (2020). Predictors of social anxiety among online dating users. *Computers in Human Behavior*, 110, 106381. doi:10.1016/ j.chb.2020.106381
- Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in Human Behavior*, *62*, 155–167.
 Retrieved from https://www.journals.elsevier.com/computers-in-human-behavior
- Procentese, F., Gatti, F., & Di Napoli, I. (2019). Families and social media use: The role of parents' perceptions about social media impact on family systems in the relationship between family collective efficacy and open communication. *International Journal of Environmental Research and Public Health, 16*, 5006. doi:10.3390/ijerph16245006
- Rasmussen, L. (2018). Parasocial interaction in the digital age: An examination of relationship building and the effectiveness of YouTube celebrities. *Journal of Social Media in Society*, 7(1), 280–294. Retrieved from https://thejsms.org/index.php/JSMS
- Rosenthal, S. R., Buka, S. L., Marshall, B. D., Carey, K. B., & Clark, M. A. (2016). Negative experiences on Facebook and depressive symptoms among young adults. *Journal of Adolescent Health*, 59(5), 510–516. doi:10.1016/j.jadohealth.2016.06.023
- Ryan, T., Allen, K. A., Gray, D. L., & McInerney, D. M. (2017). How social are social media? A review of online social behaviour and connectedness. *Journal of Relationships Research*, 8. Retrieved from https://www.cambridge.org/core/journals/journal-of-relationships-research

- Şafaköztürk, C., & Arkar, H. (2017). Effect of cognitive-behavioral therapy on sexual satisfaction, marital adjustment, and levels of depression and anxiety symptoms in couples with vaginismus. *Turk Psikiyatri Dergisi, 28*(3), 1–9. Retrieved from https:// www.turkpsikiyatri.com/
- Schmidt, C., Muench, R., Schneider, F., Breitenbach, S., & Carolus, A. (2018). Generation
 "always-on" turned off. effects of smartphone separation on anxiety mediated by the fear of missing out. In *International Conference on Human-Computer Interaction* (pp. 436–443). Cham, Switzerland: Springer.

Schutz, W. (1958). The interpersonal underworld. Palo Alto, CA: Science & Behavior Books.

- Sebro, R., Peloso, G. M., Dupuis, J., & Risch, N. J. (2017). Structured mating: Patterns and implications. *PLoS Genet*, 13(4), e1006655. doi:10.1371/journal.pgen.1006655
- Sponcil, M., & Gitimu, P. (2013). Use of social media by college students: Relationship to communication and self-concept. *Journal of Technology Research, 4*, 1–13. Retrieved from https://www.aabri.com/jtr.html
- Starabadi, M., Amirfakhraei, A., Keramati, K., & Samavi, A. (2021). Efficacy of cognitive-behavioral therapy (CBT) on the infertility stress and depression in the infertile couples. *Medical Journal of Mashad University of Medical Sciences*, 63(6), 1–13. doi:10.22038/MJMS.2021.17962
- Sutcliffe, A. G., Binder, J. F., & Dunbar, R. I. (2018). Activity in social media and intimacy in social relationships. *Computers in Human Behavior*, 85, 227–235. Retrieved from https:// www.journals.elsevier.com/computers-in-human-behavior

- Thomas, L., Orme, E., & Kerrigan, F. (2020). Student loneliness: The role of social media through life transitions. *Computers & Education*, 146, 103754. doi:10.1016/ j.compedu.2019.103754
- Timmermans, E., & Courtois, C. (2018). From swiping to casual sex and/or committed relationships: Exploring the experiences of Tinder users. *Information Society*, 34(2), 59– 70. doi:10.1080/01972243.2017.1414093
- Tong, Q., Chu, C. Y., Zhou, D., & Feng, Y. (2021). Does Internet connectedness disconnect marriage? A micro empirical analysis. *Social Indicators Research*. doi:10.1007/s11205-021-02686-8
- Tracy, S. J. (2019). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Hoboken, NJ: John Wiley & Sons.
- Uhls, Y. T., Ellison, N. B., & Subrahmanyam, K. (2017). Benefits and costs of social media in adolescence. *Pediatrics*, 140(Supplement 2), S67–S70. doi:10.1542/peds.2016-1758E
- Vahabi, B., Vahabi, A., & Roshani, D. (2017). A study of interpersonal communication skills and its associated factors among students of Kurdistan University of Medical Sciences, 2015. *Journal of Medical Education Development*, 9(24), 102–112. Retrieved from https://zums.ac.ir/edujournal
- Vusparatih, D. S. (2019). Uncertainty reduction theory in a new work environment: A case of teachers and school principals' mutation in Cilandak District. *Humaniora*, *10*(2), 97–104. doi:10.21512/humaniora.v10i2.5319

- Wallace, E., & Buil, I. (2020). Hiding Instagram likes: Effects on negative affect and loneliness. *Personality and Individual Differences*, 170, 110509. doi:10.1016/ j.paid.2020.110509
- West, M. J. (2019). *Effects of social media use on the romantic relationships of emerging adults* (Doctoral dissertation, The Chicago School of Professional Psychology).
- Whiteside, N., Aleti, T., Pallant, J., & Zeleznikow, J. (2018). Helpful or harmful? Exploring the impact of social media usage on intimate relationships. *Australasian Journal of Information Systems*, 22. Retrieved from https://journal.acs.org.au/index.php/ajis/article/view/1653
- Whyte, S., & Torgler, B. (2017). Preference versus choice in online dating. *Cyberpsychology, Behavior, and Social Networking, 20*(3), 150–156. doi:10.1089/cyber.2016.0528
- Wilson, P., Janoskova, K., Majerova, J., & Musová, Z. (2020). Online dating behavior, casual relationships, and sexual encounters on geosocial networking mobile apps. *Journal of Research in Gender Studies, 1*, 73–79. Retrieved from https://addletonacademicpublishers.com/journal-of-research-in-gender-studies
- Winter, V. R., O'Neill, E. A., Cook, M., Rose, K. L., & Hood, A. (2020). Sexual function in hook-up culture: The role of body image. *Body Image*, *34*, 135–144. doi:10.1016/ j.bodyim.2020.05.010
- Yang, C., Brown, B. B., & Braun, M. T. (2014). From Facebook to cell calls: Layers of electronic intimacy in college students' interpersonal relationships. *New Media & Society*, *16*(1), 5–23. doi:10.1177/1461444812472486

- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: SAGE.
- York, C. (2017). A regression approach to testing genetic influence on communication behavior:
 Social media use as an example. *Computers in Human Behavior*, 73, 100–109.
 doi:10.1016/j.chb.2017.03.029