AN INVESTIGATION OF ELITE U.S. FIGURE SKATERS' SOCIAL MEDIA USE, PURPOSES OF USE, AND SUBSEQUENT PERCEIVED PSYCHOLOGICAL IMPLICATIONS

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ABSTRACT

AN INVESTIGATION OF ELITE U.S. FIGURE SKATERS' SOCIAL MEDIA USE,
PURPOSES OF USE, AND SUBSEQUENT PERCEIVED PSYCHOLOGICAL
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This study investigated social media use, purposes of social media use, and the subsequent

perceived psychological implications in elite U.S. figure skaters. Thirty-seven elite U.S. figure

skaters were recruited via correspondence through social media platforms. The participants were

current U.S. figure skaters who competed within the senior level at or above the national level

and were over 18 years of age. A mixed methods two phase design was employed. During Phase

1, each participant completed a self-report survey including measures of social media use,

purposes of use, and perceived psychological implications of use. Following the survey, eight

participants were selected, dependent on their responses during Phase 1, to participate in Phase 2.

Phase 2 consisted of a 20-to-30-minute semi-structured interview aimed at establishing an in-

depth understanding of the perceived psychological implications of social media use. Athletes

were asked about specific situations in which social media content affected their emotions,

thought processes, body image, self-confidence, etc. The results indicated that a majority of elite

U.S. figure skaters use a multitude of social media platforms for reasons both related and

unrelated to figure skating. The participants perceived both positive and negative psychological

ramifications of social media use. However, the negative effects of social media use were more

pervasive in both Phase 1 and Phase 2 results.

Keywords: social media, figure skaters, psychological implication

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CHAPTER I

INTRODUCTION

We live in what has been called the information age. The advent of the smartphone and associated communication technologies have broken down geographical barriers and revolutionized the way in which society functions. People in all walks of life have the ability to constantly connect with one another and network with people around the globe. Additionally, with the rapid technological development of the 21st century, countless social media platforms have been established and in turn permeated society. Social media sites add an entirely new dimension to online communication and have created a lasting impact on our world.

Connecting one-third of the world's population, social media has become the main platform for exchanging information, marketing goods, finding career opportunities, and much more (Nelson-Field & Taylor, 2012). Kaplan and Haenlein (2010) defined social media as, "Internet-based applications that allow the creation and exchange of content which is user generated." A vast number of social media platforms exist. Some of the most widely used platforms being Facebook, Twitter, Instagram, Snapchat, and TikTok. Twitter, founded in 2006, has more than 199 million daily active users (Aslam, 2021). Instagram, founded in 2010, has over 1 billion users globally (West, 2021). With the surge of social media use in the past century, it is not surprising that social scientists have begun researching social media use and the implications of such use.

A multitude of studies have examined who uses social media (e.g., Chaffey, 2016; Singh, Lehnert, & Bostick, 2012; Boulianne, 2015) and additional studies have focused on describing the purposes of social media use (e.g., Whiting & Williams, 2013; Pang & Goh, 2016; Bal & Bicen, 2017). Investigations range from examining the positive effects of social media use (e.g.,

Siddiqui & Singh, 2016) to examining problematic social media use and the relationship between problematic use and depressive symptoms (e.g., Raudsepp & Kais, 2019). Twenge (e.g., 2019) has been studying social media and the effects it has on young people. In her book, *iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy – and completely unprepared for adulthood - and what that means for the rest of us*, Twenge identifies smartphone use as a primary reason for the difference in teens' social behavior and emotional states compared to past generations. Within her book, she refers to the current generation of adolescents as iGen'ers and details 10 trends related to social media use that are shaping adolescent behavior. One trend identified by Twenge is that electronic interaction has replaced face-to-face communication resulting in less developed social skills in iGen'ers. Another trend observed is that iGen'ers are suffering from low self-esteem and low self-confidence. Twenge explains that this may be a result of iGen'ers comparing themselves to others who post only the best parts of their life on social media. A few additional trends identified as a result of social media use in iGen'ers are delayed adulthood, lower reading levels, and a tendency to take a "safe" approach with respect to relationships, education, and career choice (Twenge, 2017). Twenge's research shows that smartphone and social media use are reshaping the way in which current generations are maturing and functioning in society. This will likely have lasting results on how adolescents conduct oneself as adults.

  With social media sites enabling enhanced communication, easily accessible news, and effortless dispersal of information, the adoption of social media sites into the athletic sphere was inevitable. Besides young people who are athletes using social media, sports teams, sport organizations, and individual athletes have more recently become a population of interest in the investigation of social media use and psychological implications of use. It has been found that

athletes use social media sites to build their fan-base, seek sponsorship opportunities, and market

products (Naegeli, 2020). Additionally, sport organizations often collect data about consumers'

likes and dislikes of their content. The data collected can then be used by members of the sport

industry to further build their brand (Naegeli, 2020). Also, social media allows for an increased

interpersonal relationship between fans and athletes. Naegeli (2020) noted, "The introduction of

social media outlets like Facebook and Twitter launched a new era for the fan-athlete

relationship." With this, it is important to acknowledge that the communication between athletes

and fans is a two-way street; not only does social media allow athletes to communicate with fans

but it allows fans an easily accessible way to contact and communicate with athletes. For

example, fans frequently send congratulatory remarks to athletes following successful

performances. However, if an athlete has a disappointing game or performance, some fans take

to the internet to put the athlete down with rude remarks or hateful messages. This two-way

communication is often beneficial but can also be detrimental to the mindset of athletes when

they are targeted with criticism.

       With the contrasting effects of social media use, social scientists have looked closer at

specific athlete populations, how athletes use social media sites, and the resulting psychological

and behavioral effects of social media use. Social media use has been researched in a variety of

athlete populations with common themes of use being self-promotion (Hayes, 2019), keeping in

contact with support networks (Hayes, 2019), gathering information (Browning & Sanderson,

2012), and entertainment (David, Powless, Hyman, Purnell, Steinfeldt, and Fisher 2018). Other

researchers have delved deeper into considering the positive and negative impacts of social

media use by athletes. For example, athlete self-efficacy can be both boosted or diminished as a

result of content viewed on Twitter (Naegeli, 2020; David et al., 2018). Additionally, social

media has been identified as a way for athletes to escape and relax during competition (Hayes, 2019). However, social media can also distract from optimal psychological preparation and disrupt concentration during events (Encel, Mesagno, and Brown 2017). In nearly every study of athletes, both positive and negative implications of social media have been acknowledged.

While research has been conducted within athlete populations regarding social media use and the effects of use, there is substantial ground still to cover. Social media has been credited with both positive and negative effects on athletes, however, few efforts have been made to understand and predict when these effects will emerge. Similarly, it is not known if all athletes are influenced by social media in the same way or if certain types of athletes (e.g., low self-esteem, high trait anxiety) are differentially influenced. Additionally, little is known about how social media use is tied to athlete's identities and the influence viewing social media may have on athletes' psychological development. Also, of interest is studying how athletes in particular sports are using and are influenced by social media. For example, does social media influence how performers view their bodies in artistic sports like gymnastics and figure skating?

Researchers have begun exploring more refined inquiries in the realm of athlete social media use and the resulting psychological and behavioral effects. For example, Hayes, Filo, Riot, and Geurin (2021) examined how using communication boundaries to minimize athlete social media use can mediate athlete distractions during events. Likewise, multiple studies in the past year have examined social media use and anxiety among athletes (e.g., Gao, Fu, Mao, & Shi, 2021; Brougham, 2021). A few studies have focused on the relationship between social media and issues such as body dissatisfaction and disordered eating (e.g., Ausmus, Blom, Bowman, & Lebeau, 2021; Jóhannesdóttir, 2021). More precise populations and the psychological

ramifications of social media use have begun to be explored. However, an athlete population yet to be analyzed are figure skaters.

Figure skating is one of the more popular spectator Winter Olympic sports and is characterized by high levels of athletic ability (e.g., jumps and spins) and artistic grace (e.g., interpretation of music). As with most sports, figure skating fans rely on social media to follow their favorite athletes, access the most recent news, and express their opinions. The author of this study also has personally experienced social media use in the realm of figure skating. She was a past elite figure skater and is a current fan of the sport and has experienced figure skating fans and athletes relying heavily on social media for multiple purposes. Competition results, practice session videos, music choices, judge and fan opinions, and even predicted results of competitions are posted on social media. For example, during the recent U.S. Figure Skating Championships, thousands of Tweets were posted by skating fans which ranged from congratulatory messages to insults about athlete performances. One fan Tweeted, "I truly find 0 joy and charm in watching Nathan (Chen, a 6-time National Champion and Olympic Champion) both skate and jump (Sally, 2022)." Harsh Tweets, similar to the Tweet previously mentioned, pollute the internet nonstop. According to observations made during previous research (e.g., Naegeli, 2020; David et al., 2018) and the ability for fans and figure skaters to generate and consume social media content, it is reasonable to predict that figure skaters use social media and are exposed to content which may result in both positive and negative psychological ramifications. Being that this topic has not previously been investigated, the purpose of the current study is to examine elite U.S. figure skaters' use of social media, the purposes of their social media use, and the perceived psychological ramifications resulting from their social media use.

Due to a lack of research on figure skaters and how they use social media, the current research was conducted in two phases employing a convergent parallel mixed methods design. Within this design, data is collected and analyzed within each phase separately. Following, the results from each phase may be interpreted alone or in conjunction with one another.

In the initial quantitative phase (Phase 1), a comprehensive questionnaire was administered to a large group of elite U.S. figure skaters for the purpose of mapping out the social media platforms elite figure skaters use, the purposes of their social media use, and any psychological benefits or detriments they perceive from using social media. The questionnaire contained questions about participant demographics, frequency of social media use, purposes of social media use in general and related to figure skating, and perceptions of psychological ramifications of social media use.

Phase 2 aimed at gathering a more robust understanding of the perceived positive and negative psychological ramifications of social media use. In-depth qualitative interviews were conducted with purposefully sampled figure skaters from Phase 1. Eight of the initial participants were selected for a 20-to-30-minute semi-structured interview. Within the interview, participants were asked a range of questions about how they perceive social media to influence their psyche surrounding figure skating. Some topics of conversation were body image, sport confidence, and motivation.

In summary, the current study was the first to look at elite figure skaters' social media use, purposes of use, and perceived psychological ramifications of social media use. This preliminary research may have important implications for future research in this area. Additionally, the results of this study may support a need for athletes, sport teams, and sport

organizations to more closely monitor athlete social media use in an effort to prevent detrimental

psychological outcomes.

CHAPTER II

LITERATURE REVIEW

There is a considerable amount of literature detailing the effects of social media on broad participants groups. The influence of social media on society as a whole has been considered; college student usage and effects have been detailed; the adolescent population has been studied; and even individual country populations have been looked at under a finer lens (e.g., Chiu, Ip, & Silverman, 2012; Poushter, Bishop, & Chwe, 2018). With social media use in figure skaters being the particular focus of this investigation and no prior research conducted regarding this group, there is no pertinent literature to review. Instead, the review will be divided into two sections. First, a general overview of the social media research conducted within the general population will be detailed. Second, the emerging literature focused on athlete social media use and the resulting effects will be reviewed.

Social Media Use in the General Population

The relatively recent surge in social media use has cultivated researcher interest in a variety of areas. Before studies of athlete social media use are reviewed, research regarding the prevalence, purposes, and consequences of social media use in the general population will be summarized.

Prevalence of Social Media Use

Worldwide prevalence of social media was reported by Chaffey in 2016. His report, *Global Social Media Research Summary 2016*, provides a summary of social media use relative to different regions of the world, age ranges, particular social media platforms, etc. In January 2016, 2.307 billion people were reported as active social media users. The most popular regions of internet use were reported as East Asia, South Asia, Africa, West Europe, and North

American. Although social media use has grown rapidly in the past century, this 2016 report noted that social media use is starting to plateau. Chaffey's research also revealed that the age range with the most users was 18- to 29-year-olds. However, the age range with social media use increasing most rapidly was those 65 and older. Lastly, the platforms with the most use were Facebook, YouTube, Twitter, Google+, and Instagram (Chaffey, 2016). Chaffey's review is one of the most comprehensive in examining social media use in the general population.

Motivations for Using Social Media - Uses and Gratification Theory

With the pronounced growth in social media use, researchers have inquired into what motivations drive individuals' social media use. With this research interest, Uses and Gratifications (U&G) Theory has repeatedly been used as a theoretical foundation. U&G Theory was originally developed to examine traditional media (e.g., television and newspaper) use (Katz, Blumer, & Gurevitch, 1974). However, as the use of media shifted from traditional to more modern media, such as social media sites, U&G Theory evolved as well. Recently, researchers have begun looking more closely at the reasons for and gratifications of social media use (e.g., Dolan, Conduit, Fahy, & Goodman, 2016; Whiting, & Williams, 2013; Quan-Haase, & Young, 2010).

The premise of U&G Theory is that individuals are active, discerning, and motivated in their media use. Accordingly, individuals choose which media sources they use and how they use them in order to satisfy needs and in turn, obtain gratifications (Katz et al., 1974). Additionally, U&G theory assumes that individuals use multiple social media sites concurrently to fulfill distinct needs uniquely satisfied by each site's functionality (Quan-Haase & Young, 2010). With the audience being deemed active and motivated in their use of media, U&G Theory set the

foundation for the examination of the motivations for diverse social media use (Katz et al., 1974).

It is important to note that with the advent of social media sites, the U&G perspective shifted; the reciprocity of social media sites called for analysis. Social media is unique from previous media sources (e.g., internet and television) because it allows for user-generated content (UGC) to be shared and consumed (Vickery & Wunsch-Vincent, 2007). The capacity for individuals to produce their own content on social media platforms created an additional construct of consideration when evaluating the uses and gratifications of media sources.

Whiting and Williams (2013) sought to apply U&G theory to explain why individuals use social media. The authors conducted an exploratory study consisting of 25 in-depth interviews. As a result, 10 themes were identified: social interaction, information seeking, passing time, relaxation, entertainment, expression of opinion, communicatory utility, convenience utility, information sharing, and surveillance/knowledge about others (Whiting & Williams, 2013). Vickery and Wunsch-Vincent (2007) also conducted a study seeking to expand the U&G theory to include social media uses and gratification. Their research indicated that individuals using social media are fulfilling their needs of self-expression, self-actualization, social connection, information consumption, entertainment, and mood management. The themes identified in both studies are considerably analogous. Similarly, additional research pertaining to the uses of social media has nearly replicated these findings by producing very similar, if not the same, themes (e.g., Quan-Haase, & Young, 2010; Liu, Cheung, & Lee, 2010).

In summary, U&G theory proposes that social media platforms are deliberately chosen and used in ways that satisfy gratifications valued by individuals (Whiting & Williams, 2013).

With the posit that social media is used for specific purposes, U&G theory is a useful framework in guiding research relevant to determine the underlying motivations of social media use.

Consequences of Social Media Use

Although social media is often perceived by users as fun or is used for seeking information, many consequences of social media use have been identified in literature. Akram and Kumar (2017) identified an array of negative effects caused by social media. The authors claimed that social media use can lead to cyberbullying, loss of motivation in school, reduced social capabilities, distorted body image, and social media addiction (Akram & Kumar, 2017). Social media has also been identified as a source of negative social comparison leading individuals to believe they are more unhappy and have worse lives than other individuals (Chou & Edge, 2012). In addition, social media use and its relationship to depression, anxiety, and disordered eating have been examined (e.g., Vidal, Lhaksampa, Miller, & Platt, 2020; Dobrean & Păsărelu 2016; Sidani, Shensa, Hoffman, Hanmer, & Primack, 2016). In a meta-analysis of previous research by Dobrean and Păsărelu (2016), it was observed that a significant relationship between social media use and social anxiety was reported in a majority of the studies. Clearly, negative impacts of social media are substantial. The consequences of social media use are important to consider because identification and acknowledgment of such consequences may guide social media users to more explicitly consider how they use social media to avoid negative ramifications.

Athlete Social Media Use and Ramifications of Use

The earliest study of athlete social media use and psychosocial and behavioral responses was conducted in 2012. Browning and Sanderson (2012) focused on student-athlete motives for using Twitter, perceptions of critical tweets, and responses to critical tweets. Participants were

student-athletes at a private educational institution from a variety of Division I sport teams. Results from semi-structured interviews indicated three motivations for Twitter use by the student-athletes: keeping in contact, communicating with followers, and accessing information. The perceptions of critical tweets by student-athletes varied. Some athletes ignored the critical tweets, some used them as a source of motivation to excel, and others felt it was challenging to deal with the negativity. The last aim of the study was to assess how the athletes respond to critical tweets. Athletes' responded to critical tweets by either not responding, deleting the person (who posted the critical tweet) from their feed, or strategically responding. Athletes indicated they would strategically respond by retweeting the tweet and allowing their fans to respond for them or subtweeting (tweeting about the person without including their name) about the critical tweet (Browning & Sanderson, 2012). The results of this study show that student-athletes use Twitter and respond to critical tweets in a multitude of ways.

An additional study that focused on Twitter use and implications of such use was conducted by David, Powless, Hyman, Purnell, Steinfeldt, and Fisher (2018). The study examined how student-athletes used Twitter, the kind of interactions they had on the platform, and the psychological outcomes that resulted from these interactions. Participants were NCAA Division I student-athletes and the experiences of the participants were acquired via semi-structured focus-group interviews. Five separate domains that characterize experiences on and uses of Twitter emerged as a result of the focus-group interviews. The first domain was referred to by authors as #WhyWeTweet. This domain included the reasons that participants claim to use Twitter. The reasons being to pass time, view public feedback, receive advocacy and moral support, and promote oneself and their institution. The second domain deemed the name #LetItGrow, refers to the growth the athlete experienced on the platform as a result of

participating in a Division I sport. Athletes indicated they became more selective and intentional when creating content on Twitter because of their increased publicity due to high level sport involvement. Domain 3, #TweetInsideTheLines, included the guidelines followed by the athletes while using Twitter. During the focus-group interviews, athletes indicated that they feel a pressure to tweet appropriately due to being under the watchful eye of department administrators, parents, peers, etc. This pressure is highlighted by the fact that the team is annually given presentations regarding guidelines for using social media and posting content. #IDeclareTwittterWar was the fourth domain determined by authors. This domain detailed negative exchanges on social media, responses to such exchanges, and the coping strategies used as a result. Athletes in revenue generating sports receive abundant social media exposure (due to the larger fan base) which results in significantly more online criticism compared to athletes in non-revenue generating sports. Additionally, athletes expressed frustration in having a lack of control over what other social media users post. In instances of critical tweets, athletes noted they are often defenseless because they have limited options for responding to tweets due to their student-athlete status. In turn, some athletes resort to letting administrators handle conflict. Participants detailed a few coping strategies to critical tweets which included, brushing it off, ignoring the tweet, or adopting a sense of humor. However, many athletes indicated having difficulty forgetting the criticisms shared on such a large social platform. The final domain detailed is #SportPerformanceImplications which further delves into the implications of student-athlete Twitter use. Both positive and negative implications are detailed. One positive implication indicated in the article is the ability for athletes to use Twitter as a platform to reflect on shared team experiences and acknowledge teammate's efforts. Additionally, self-efficacy in student-athletes was indicated to be either boosted or lowered depending on the nature of tweets.

Most of the experiences shared by the participants were negative in nature and contained statements that pertained to a decrease in confidence. Athletes indicated that they often concentrate on critical tweets during practice and competition which can distract from optimal focus and impact athlete confidence. Lastly, many of the participants in the higher social media exposure group (revenue generating sports) indicated they have anxiety regarding the potential of receiving critical tweets. One athlete indicated, "you are under a microscope, and you can't hide." Overall, the authors concluded that student-athletes are heavily influenced and affected by their Twitter use and that there are both advantages and disadvantages to Twitter use (David et al. 2018). These conclusions permit further study of social media use and its effects on athletes.

Naegeli (2020) studied the influence of social media on performance anxiety in male NCAA Division I athletes. Similar to the two previous studies discussed, Twitter was the only social media site examined in this study. Naegeli used three methods to collect data which included the Competitive State Anxiety Inventory-2 (CSAI-2), an individual interview, and an artifact analysis of each participant's personal Twitter activity. The participants indicated that both positivity or negativity expressed by fans through social media can heighten game time pressure (heightened performance anxiety and pressure to perform). Additionally, results indicated that participants are aware of fan engagement on media throughout their performance, but they prioritize mentally tuning out the distractions of social media and maintaining focus. In reference to somatic anxiety, participants explained that the environment and fans at the event they are performing at have significantly more influence than fan engagement on social media. Finally, both positive and negative fan engagement were shown to increase or decrease athlete self-confidence, respectively (Naegeli, 2020).

Rather than focusing on Twitter use, Encel, Mesagno, and Brown (2017) explored Facebook use in a large sample of athletes. Data was gathered with the aim of exploring the prevalence and timing of Facebook use prior to, during, and after competition and determining the relationship between sport anxiety and Facebook use. The authors used questionnaires (measuring sport participation and Facebook use) and the Sport Anxiety Scale-2 to gather data. Results indicated that 68.1% of the athletes accessed their Facebook account within two hours of sports competition. Additionally, 31% of the athletes accessed Facebook during the competition. Encel et al. (2017) expressed that Facebook may act as a distraction from optimal psychological preparation and disrupt concentration. This indicates reason for further study in this area. However, the results showed no relationship between Facebook use and athlete sport anxiety (Encel et al., 2017).

Pompey (2016) sought to identify how posts on social media influence athlete identity, personal life, perceptions of self and teammates, and self-confidence. She recruited six Division I athletes from multiple universities and conducted face-to-face interviews with each participant. Participants recruited did not indicate negative influence on their athletic identity as a result of social media posts. Rather, athletes indicated social media posts fuel their personal and team growth and can produce feelings of pride. In terms of personal life, the athletes did not mention social media as having any influence. Additionally, athlete's perceptions of self and teammates were not changed as a result of social media posts. Lastly, self-confidence was boosted in athletes when they received praise or encouragement via social media. Only one athlete mentioned a negative post lowering her self-confidence (Pompey, 2016). Overall, in this study social media influenced participant's motivation and confidence in positive ways.

In an additional study, smartphone usage as a whole was examined rather than social media individually. Lund (2020) conducted a multiple case study to examine characteristics of athlete smartphone usage and detail athlete perceptions of helpful and detrimental smartphone usage relative to performance and mental health. The investigation showed that smartphones can be helpful in many ways but also present challenges in the realm of athlete mental health and performance. Social media was found to make up a large proportion of total smartphone usage by athletes. Also, it was found that during or following months characterized by higher smartphone usage (compared to the individual's average smartphone usage), athlete mental health scores and perceived success, development, and satisfaction with sport declined. Additionally, all four of the athletes indicated that their smartphone could potentially reduce focus during training, competition, studying, or going to sleep. Only one athlete mentioned the difficulty of receiving comments that felt "intrusive and unwanted" (Lund, 2020). The results of this study show similar outcomes to similar studies related to athletes and the psychological impacts of social media use.

Brougham (2021) conducted a study with the purpose of looking more closely at the relationship between social media use and anxiety/depression, self-esteem, satisfaction with life, and perceived stress in student-athletes. Additionally, differences in these constructs between males and females as well as individual and team sports were studied. A survey with both open- and close-ended questions was used to gather data. Overall, 94 student-athletes from Division I, Division II, and Division III institutions completed the survey in entirety. The student-athletes were asked how they feel social media use affects their lives. The positive effects indicated include communication, stress relief, and motivation. Whereas the negative effects were procrastination, loss of sleep, and increased vulnerability (e.g., being judged by others via social

media). Interestingly, only one significant relationship was found between different social media platforms and mental health measures. A significant negative relationship was established between YouTube use and anxiety/depression. Brougham also studied the difference between males and females in social media use and mental health measures. It was found that females spend significantly more time on social media than males. Additionally, males scored lower on anxiety/depression and perceived stress and higher on self-esteem and vitality than females. This may be due to the lesser amount of time males spend on social media. Additional significant relationships between social media use and mental health measures were found in analysis of female participants only. A relationship between Facebook usage and self-esteem was found as well as a significant negative relationship between LinkedIn and athlete identity (Brougham, 2021). This study's results indicate student-athletes are affected by social media and that females may be more vulnerable to the effects of social media use.

The final study explored athletes' social media usage during major sporting events and the perceptions of such use. Hayes (2019) conducted a three-study series. Because only studies one and two align with the purpose of the current research, these two studies will be detailed. In study one, the researchers sought to develop an understanding of why athletes use social media during major sport events and the gratifications and challenges that are experienced from social media use. Australian elite athletes who competed in Summer Olympic sports were recruited. The athletes completed an open-ended questionnaire. Three themes were identified as reasons athletes use social media during major sport events. The themes identified were communication with support networks, self-promotion via content production, and information gathering and sharing. Additionally, three themes were identified as gratifications athletes receive from using social media during major events: connectedness with and support from fans and significant

others, positive reinforcement from messages received, and relaxation/escape via social media providing a distraction from the intensity of sport. Challenges indicated by the athletes included anxiousness because of content they were exposed to on social media pages and the issue of balancing an appropriate amount of social media use. Study two had multiple purposes but in order to maintain alignment with the current research, only the purpose of investigating the elements of social media that athletes perceive as distracting will be discussed. For the second study, 15 athletes from the original participant group were recruited to participate in a semi-structured interview. The athletes indicated five distracting elements of social media use. These elements included feeling obligated to respond to messages received, the susceptibility to unwanted commentary, the pressure of building and maintaining athlete brand, viewing competitor content, and using social media as an avenue to escape (Hayes, 2019). Overall, this study showed that social media has clear positive and negative implications for athletes when used during major sport events.

In general, research regarding social media uses and psychological ramifications of use in athlete populations is rather limited. Literature indicates social media is used as a tool for communication, entertainment, information gathering, self-promotion, and information sharing within the athletic realm (e.g., Brougham, 2021; David et al. 2018). Some positive and negative ramifications of social media use have begun to be identified and examined. Social media has been identified as a possible source of positive effects such as increased self-efficacy (David et al. 2018) and motivation (Pompey, 2016) and negative ramifications such as reduced focus (Lund, 2020) and increased anxiety (David et al. 2018). However, investigations of social media use by athletes are limited in scope and many athlete populations have yet to be considered (e.g., figure skaters). Additionally, a considerable number of studies solely investigate the use of one

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social media platform (e.g., David et al., 2018; Browning & Sanderson, 2012). There is insufficient investigation of the multitude of social media sites used by athletes and reasons for use of different sites concurrently. The current study will make novel contributions to literature by examining elite figure skaters' use of social media sites as well as the perceived implications of social media use.

There are multiple purposes of the current study. The first purpose was to examine how elite figure skaters use social media (e.g., platforms used, frequency of use, use related to figure skater). The researcher aimed to establish baseline data about elite figure skater social media use. This information may be useful in predicting psychological ramifications of use, distractions from sport, a need for athletes to monitor their social media use, etc. The second purpose was to investigate the purposes of elite figure skater social media use. The general purposes of social media use as well as the purposes of social media use specifically related to figure skating (e.g., building a fan base, obtaining sponsorship) are examined. The last purpose of this study was to identify the perceived psychological ramifications of social media use in elite figure skaters. This includes both the positive and negative ways in which elite figure skaters perceive social media to impact psychological factors such as anxiety, happiness, confidence, motivation, and body esteem. Preliminary data about social media use, purposes of social media use, and the perceived psychological effects of social media use was collected during Phase 1. In Phase 2, semi-structured interviews were conducted with eight elite figure skaters. This allowed for an in-depth analysis of the perceived psychological ramifications of social media use.

CHAPTER III

METHODS

This mixed methods study was designed to explore the use of social media, purposes of social media use, and subsequent perceived psychological implications in elite U.S. figure skaters. This design was deemed to be the most appropriate approach because it allows the investigator to describe social media use and the outcomes of social media use in elite U.S. figure skaters as a group, while also allowing for an in-depth exploration of the perceived psychological ramifications of social media in a subset of participants from the original sample. Phase 1 of the study consisted of a one-time descriptive survey administered to current elite U.S. figure skaters. Phase 2 consisted of semi-structured qualitative interviews conducted with eight participants selected from the original sample.

Phase 1 Survey

Participants

The participants in this study were current U.S. figure skaters who competed in the senior level at national or international events during the past figure skating season (July 1, 2021, to June 30, 2022). The senior level is the highest level within figure skating. Figure skaters must qualify to compete at the national level, which is a competition that occurs each January. This competition is called U.S. Figure Skating Championships. Competitors who compete successfully in the U.S. Figure Skating Championships (usually place in the top 12 of their specific event) can then be selected by the U.S. Figure Skating International Committee and/or the International Selection Union (ISU) to represent the United States at international competitions (which take place throughout the season). Skaters at the senior level who compete nationally and/or internationally, were chosen as the sample for this study because it is likely that

at this level of competition, social media becomes less controlled by athletes (as their fame

increases, more posts appear from fans and individuals they do not know) which can result in

these athletes being more susceptible to social media posts related to their competence as a figure

skater. Additionally, only athletes above the age of 18 were recruited to avoid the unique

challenges faced when surveying minors. The survey was sent to every athlete (over 18 years

old) who competed at the senior level in the U.S. Figure Skating Championships held January 3,

2022, to January 9, 2022 (n = 81).

Procedures

Following approval from the Institutional Review Board (Michigan State University), the

author of this study began participant recruitment via social media platforms: Facebook and

Instagram. The author contacted each participant a total of three times, 7 days apart (if needed),

in an effort to obtain a substantial number of participants. Once an individual completed the

survey, they were removed from the contact list and no longer contacted. Because recruitment

began during the 2022 Winter Olympics, the author created a separate group for figure skaters

participating in the Olympics and did not contact these athletes until after the event was over.

The author made this decision as to avoid disrupting the athletes' Olympic experience or mindset

during the competition. Athletes who competed in the Olympics were contacted after the

conclusion of the competition using the same process as the other participants.

The first recruitment message was sent in a group message format on Instagram. The

athletes from each discipline (ladies, men's, pairs, and ice dance) were put into four separate

direct messaging groups (due to a limit to the number of individuals allowed in a single direct

messaging group in Instagram). An additional group of the Olympic athletes was created after

the event concluded. Additionally, three athletes were unable to be located on Instagram and

were contacted via Facebook instead (in the same recruitment style as participants contacted on Instagram). Each group was sent a message that included information about the author's history in figure skating and current education status as well as a brief explanation of the purpose, methods, and length (15 to 30 minutes) of the study. Participants were assured that their responses would be kept confidential as well as notified of the possibility of being recruited to participate in Phase 2 of the study. Participants willing to designate their time to participate in the study were instructed to follow the Qualtrics link (included in the message) to the informed consent and survey. The Qualtrics link brought participants first to an informed consent (see Appendix A) in which they were instructed to read and sign. Participants were able to move forward with the survey only once they completed the informed consent.

A week after the author sent the first direct group message, the author contacted all participants who had not engaged in the survey a second time. Contact with participants for the second time was made through an individual direct message. The content of the direct message was very similar to the initial message (inclusion of purpose, method, confidentiality, length) and again asked for the individual's participation in the survey. A week after the second direct message was sent, the author sent each athlete (who had not yet participated) a final message. The final message again provided details of the study and additionally specified that the desired sample size had not been reached. Following the final direct messaging being sent, the author continued to collect survey responses for one week and then concluded Phase 1 recruitment. Participant recruitment for Phase 1 began on February 15, 2022, and concluded on March 18, 2022.

The survey was administered using Qualtrics for convenience in sampling athletes located throughout the United States. Included at the beginning of the online survey was an

informed consent (see Appendix A). Following informed consent completion, athletes completed the Qualtrics survey. The survey included four sections: demographic information (see Appendix B), social media use (see Appendix C), purposes of social media use (see Appendix D), and psychological ramifications of social media use (see Appendix E). The survey took between 15 to 30 minutes for the participants to complete. At the conclusion of the survey, the participants were thanked for their time spent taking the survey.

All data collected was stored confidentially. The Qualtrics survey results are password protected and only the survey owner (the lead researcher) had access to the Qualtrics database. Consent forms, the downloaded database from Qualtrics, cleaned data, and any additional data obtained via the Qualtrics survey was stored on a password protected computer that only the lead researcher has access to.

Survey Measure

The survey included the following measures.

Athlete Demographic Information. Participants completed a demographic questionnaire that asked about their age, gender, race, training location, hometown, discipline (ladies, men's, pairs, or ice dancing), category of major events (national and/or international competitions), years of participation in figure skating, and years of participation in elite figure skating events (see Appendix B).

Social Media Use. Participants' social media use in general and relative to figure skating was assessed using a questionnaire developed by the author (see Appendix C). The author designed the questionnaire because a questionnaire or scale assessing social media use had not previously been established in literature. A majority of the questionnaire was developed by the author. However, in constructing a few of the questions (e.g., Q14 and Q16) the author

referenced the questionnaire used by Hayes, Filo, Riot, and Geurin (2019) which assessed social media use by athletes during major sporting events. Within the questionnaire used by Hayes et al. (2019), questions specifically asked about social media use during major sporting events. Because the purpose of this portion of the survey was to assess social media use during athlete's normal daily lives, wording of the questions was modified to pertain to this general social media use. The author added a multitude of questions to the questionnaire in effort to obtain a comprehensive analysis of social media use both in general and relative to figure skating. For example, a question assessing the percentage of content related to figure skating on each social media platform was added. In addition, the participants were asked how they changed their social media use before or during major competitions. Overall, the scale assessed which social media platforms participants use, which platforms participants use for purposes related to figure skating, how often participants use social media platforms, and in what ways, if any, participants change their social media use before and during major competitive events.

Purposes of Social Media Use. The purposes of social media by elite U.S. figure skaters use was assessed using two scales. The first being the Social Media Usage Aims Scale (SMUAS) and the second being a modified version of the SMUAS aimed at assessing the purposes of social media use relative to figure skating (see Appendix D). Horzum (2016) developed the original version of the SMUAS, the Facebook Usage Aims Scale (FUAS), which specifically measured reasons for Facebook use. Kircahurun, Alhabash, Tosuntaş, and Griffiths (2020) modified wording of the FUAS to measure social media use more broadly by replacing the word "Facebook" with "social media." Modification of the FUAS by Kircahurun and colleagues resulted in the SMUAS. The SMUAS comprises 30 items assessed on a five-point Likert scale. The Likert scale ranges from *strongly disagree* (1) to *strongly agree* (5). The SMUAS consists of

seven subscales: (1) maintaining existing relationships (MER, items 1-4); (2) meeting new people and socializing (MNPS, items 5-8); (3) making, expressing, or presenting a more popular oneself (MEPO, items 9-12); (4) passing time (PT, items 13-15); (5) a task management tool (ATMT, items 16-20); (6) for entertainment (ENT, items 21-24); and (7) for information and education (IAE, items 25-30). Kircahurun et al. conducted confirmatory factor analysis and determined construct validity of SMUAS. Additionally, Cronbach's alphas for the total scale and subfactors were .89, .76, .72, .64, .82, .78, .64, and .81 respectively (Kircaburun, Alhabash, Tosuntaş, & Griffiths, 2020).

Additionally, in accordance with the purpose of this study, the author included an additional scale aimed at assessing social media use relative to figure skating. The author modified the SMUAS for this purpose. The wording of each item was altered to refer to purposes of social media use specifically related to figure skating. For example, the statement "stay in touch with friends or people I know" was modified to "stay in touch with figure skaters I know." Additionally, seven items were removed from the scale because of their irrelevance to social media use related to figure skating (e.g.,"play games"). The author also added seven items she deemed relevant to the purpose of this section of the survey (e.g., "to promote sponsors acquired through figure skating"). Identical to the SMUAS, items were measured using a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The resulting modified scale comprised 30 items total. To maintain the likeness of the SMUAS, the modified version was also split into subscales. The modified SMUAS includes eight subscales (seven of the original SMUAS and one added subscale): (1) maintaining existing relationships (MER, items 1-5); (2) meeting new people and socializing (MNPS, items 6-8); (3) making, expressing, or presenting a more popular oneself (MEPO, items 9-13); (4) passing time (PT, items 14-16); (5) a task management tool

(ATMT, items 17-20); (6) for entertainment (ENT, items 21-23); (7) for information and education (IAE, items 24-28); and (8) obtaining or promoting sponsors (OPS, items 29 and 30).

Psychological Ramifications of Social Media Use. The last section of the questionnaire was aimed at assessing the perceived psychological ramifications of social media use in relation to figure skating (see Appendix E). A scale with this aim has not been previously established in literature. Accordingly, the author developed a scale by referencing related scales and results of studies with similar purposes. Similar to the scale that is used to measure purposes of social media use (SMUAS), items on this scale were assessed using a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The author referenced multiple previous studies, which included scales to measure perceived psychological ramifications of social media, in developing items for this scale (e.g., Lund, 2020; Naegeli, 2020). Additionally, the author used results of previous studies with similar purposes to determine important psychological factors to assess in the scale. For example, David et al. (2018) found that athlete self-efficacy was boosted or lowered depending on the nature of tweets. Therefore, a measure of self-efficacy as a result of social media use was included in the current scale. The author compiled a record of the results from previous studies and referenced this record during the construction of the psychological ramifications of social media use scale. The resulting scale comprised 30 items.

The survey was pilot tested with graduate students in the Kinesiology program at Michigan State University. Content validity of the items on the questionnaire was established by having the respondents make recommendations pertaining to the addition, deletion, or revision of items based on their understanding of social media and the possible psychological ramifications of social media use. The graduate students were also asked for suggestions regarding readability, length, and clarity of survey questions. Based on their feedback, the author made minor revisions

and added a few additional questions. Following revisions recommended by graduate students, the scale was finalized.

Data Preparation

Following survey returns, data was entered into SPSS 20.0. The data was then reviewed and cleaned by the author. Two participants were removed from the database because they only completed the first few demographic questions of the survey and then exited the survey leaving the remaining portions incomplete. There were some minor appearances of missing data (e.g., number of followers, hometown, training town). It is hypothesized that some participants did this intentionally to conceal their identity. This information was excluded from the analysis as it was not needed for the purposes of this study. However, there was no missing data on any of the scales used. For questions that included "not applicable" as an answer choice (which indicated the participant does not use the social media platform asked about), answers of "not applicable" were recoded to be missing as to not interfere when calculating frequency and descriptive analyses for the questions. A multitude of items on the psychological ramifications of social media use scale had to be recoded. Each of items that indicated a negative psychological impact (items 2, 4, 6, 8, 9, 12, 14, 15, 16, 17, 20, 22, 24, 25, 26, 27, 29, 30) were recoded to allow for computation of an overall score on the psychological ramifications of social media use scale.

Data Analysis

Demographic data was analyzed using descriptive and frequency measures. Given that this study is designed to map out how elite figure skaters are using social media, what channels they use, and any psychological benefits or detriments they perceive from using social media, descriptive statistics were also used to summarize the participants' responses at the group level.

Pearson Product Moment correlations coefficients were computed to analyze possible linear associations among the continuous variables. The following continuous variables were considered: age, starting age of social media use, number of years as a national competitor, number of years as an international competitor, number of social media platforms used, number of changes made to social media use prior/during competitions, mean daily social media use (all platforms), mean daily Instagram and Twitter use, mean frequency of social media use, mean frequency of Instagram and Twitter use, positive psychological ramifications, negative psychological ramifications, and overall psychological ramifications.

Lastly, to assess if figure skater social media use differed by critical demographic variables like gender, discipline, and competition tier differences, a series of analysis of variance tests (ANOVAs) were conducted. Three ANOVAs were conducted with independent variables, gender, discipline, and competition tier, and dependent variables, overall psychological ramifications, positive psychological ramifications, and negative psychological ramifications.

Gender was included as an independent variable because the author hypothesized that the psychological ramifications perceived by athletes may vary depending on whether they are male or female. From the author's experience in competitive figure skating, she is aware that females often face more negative comments on social media, especially surrounding body type and how they look aesthetically on the ice. Additionally, it has been found that females spend significantly more time on social media than males (Brougham, 2021). This may also influence the intensity of psychological ramifications (both positive and/or negative) perceived to result from social media use.

The second independent variable included within the ANOVAs was skating discipline. The author decided to divide discipline into two categories: singles (ladies singles and men's

singles) and pairs skaters (pairs and ice dance). This decision was made because within the world of figure skating, it is recognized that singles skaters often have a larger following of fans/spectators, receive more sponsorship opportunities, and overall receive more recognition and attention than pairs skaters and ice dance teams. For this reason it was hypothesized that singles skaters may experience exasperated effects of social media use when compared to dance and pair skaters combined.

Lastly, the competition tier of the participants was considered as an independent variable within the ANOVAs conducted. The competition tier was split relative to the amount of publicity the figure skating events involved. The first tier of competitions included participants who have competed solely at U.S. Championships. The second tier included participants who have competed at U.S. Championships as well as international events (i.e., Junior Grand Prix, Junior Grand Prix Final, Challenger Series, Grand Prix, Four Continents Championships, World Championships, Olympics). This independent variable was subdivided in the preceding fashion because it is possible that participants who compete at international events (which are more highly publicized and difficult to qualify for) likely experience amplified psychological outcomes of social media due to their renown within the sport and increased appearances on live stream and television.

Phase 2 Interview

Participants

In Phase 2 of this study, eight individuals were purposefully sampled from the Phase 1 participant group. With the purpose of more thoroughly examining the psychological ramifications of social media, multiple factors were taken into consideration during Phase 2 participant selection. First, participants who on their survey responses indicated that social media

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use had the most effects on their psychological states (whether the effects be positive or negative) were placed in a subgroup. Once participants were placed into this subgroup, the following factors were considered together for inclusion in the sample: amount of daily social media use, level of competition, number of social media followers, and changes to social media use during major competitive events. These factors were considered because they are all factors hypothesized to contribute to an athlete's susceptibility to social media commentary which may influence positive and/or negative psychological ramifications. The author grouped the participants based on these factors and selected 12 participants for recruitment. Of the 12 participants recruited, eight agreed to participate in the 20-to-30-minute semi-structured Zoom interview.

Paradigmatic Perspective

Phase 2 of this study used interpretivism-constructivism as a conceptual and theoretical framework in the development and creation of a semi-structured interview guide, and interpretation and explanation of the resulting data. Past scholars have considered interpretivism and constructivism individually. Interpretivists view individuals as actors in the social world who shape their own reality; this allows for the assumption that multiple realities exist. Constructivism is based on the assumption that, "Reality and the human behavior therein is characterized by continuous fluctuations, adjustments, and transformations operating simultaneously (Van Der Walt, 2020, p. 61)." Interpretivism is more closely related to understanding of social phenomena while constructivism guides the explanation of such phenomena. Taken together, the use of interpretivism-constructivism as a paradigmatic approach allows for both the understanding and explanation of social phenomena combining the benefits of each approach (Van Der Walt, 2020).

In taking an interpretivist-constructivist paradigmatic approach, the unique backgrounds, experiences, and beliefs of the participants and the researcher were considered when defining the methods of the current research. The researcher's knowledge about the topic of interest was inherently shaped by her experiences as an elite figure skater and use of social media throughout her life and more specifically, her athletic career. In developing a semi-structured interview template, the author attempted to recognize her own biases and control them in multiple ways. First, the semi-structured interview was pilot tested with a graduate student within the Kinesiology program at Michigan State University. This student provided feedback and recommendations regarding wording of interview questions and question delivery. A positionality statement was also developed to support the investigator in remaining as impartial as possible in her interpretation of the qualitative data, recognizing that interpretivist-constructivist paradigmatic approach holds that no researcher can be completely unbiased or objective. Examination of underlying themes and dimensions within transcribed interviews was conducted by the researcher in an objective manner. Lastly, trustworthiness was enhanced by using "thick description" of athlete quotes in the presentation of results. The investigator also kept a reflective journal (an analytic memo) that captured her thoughts and rationale for decisions made during qualitative data analysis and result interpretation.

Investigator Positionality

As previously mentioned, the author has personal experience as an elite U.S. figure skater. In turn, the author has personal experience attempting to manage social media use as an elite athlete. She outlined her perspectives about the topic in an effort to make any implicit biases explicit.

The investigator was an elite figure skater herself and competed at the highest level of competition in the United States (U.S. Figure Skating Championships at the senior level). Additionally, she competed internationally on behalf of Team USA. Being an elite level figure skater put her under a spotlight in the figure skating world and on social media. She noticed many positive effects of social media such as the ability to connect with family when traveling and receiving praise from fans. However, she also experienced negative effects of social media use such as heightened competitive anxiety and negative social comparison. As a result, she often turned her social media off or limited her social media use during competitive events. She did this to avoid viewing posts on social media that had the ability to alter her mood and induce anxiety. She noted that figure skating fans often posted videos of her and her competitors, predicted competition placements, and commented (praise and criticism) about performances. Additionally, she often noticed or heard about figure skaters struggling with psychological issues (which may be influenced by social media use) and felt like social media had a lot to do with her own psychological health and perceptions about her body. The researcher's personal experiences sparked her interest in studying social media use and the perceived psychological effects of social media use on elite figure skaters. She realizes there are many positive effects that result from social media use but is also conscious of the negative effects that may result (e.g., performance anxiety, body image concerns, and lower self-esteem/efficacy). The investigator understands the importance of developing instruments for the current study carefully by considering possible personal biases, engaging in discussion with colleagues, and guarding against leading questions.

Procedure

Following approval from the Institutional Review Board (Michigan State University), the author began participant recruitment via Instagram (all participants chosen to be recruited had an Instagram account). Participants selected for Phase 2 of this study were sent a direct message that included information about their selection for Phase 2, study methods, purpose of the study, length of the interview, and author contact information (in case the participants wanted to ask questions regarding the research). Additionally, the participants were asked to provide an email address (if agreeing to participate). Following provision of an email address and agreement to participate, the author contacted the participants via email requesting them to read and complete the informed consent and provide times in which they have availability for the interview. Within the informed consent, the participants were reminded of their rights as subjects and assured that their identities will remain confidential. They were also reminded that they are free to refuse to respond to any questions that make them feel uncomfortable and can withdraw from the study at any time they wish. To respect the participants' busy lives, the researcher scheduled the interviews within each participant's availability. All informed consent forms were received prior to conduction of the interviews. The interviews were conducted via Zoom from April 5, 2022, to April 13, 2022. Each interview was video, and audio recorded. Additionally, the Zoom transcription feature was used to automatically generate a text transcript. Following each interview, the automatically generated transcripts were verified as correct by simultaneously viewing the transcribed text, listening to the audio recording, and correcting inaccurate transcription.

All consent forms, interview recordings, and transcripts were stored on a password protected computer that only the lead researcher had access to as to protect participant anonymity and privacy.

Interview Guide

A semi-structured interview guide was used for Phase 2 of the study. The semi-structured guide provided an overall structure to the interview by asking participants a common set of questions. At the same time, the interviewer had the freedom to probe as well as pursue interesting topics, stories, or themes unique to each participant.

The interview guide was designed by the author with an aim to further assess and understand the perceived psychological ramifications of social media use by elite U.S. figure skaters. The author tried to maintain an unbiased stance by phrasing the questions in a neutral manner. The semi-structured interview included questions about the effect of social media on psychological factors such as competitive anxiety, psychological preparation, body image, motivation, and confidence (see Appendix F).

The semi-structured interview was designed with reference to past literature relevant to the topic of study. For example, in a study by Naegeli (2020), positive and negative fan interactions via social media were shown to influence athlete performance anxiety. Reflecting on this information, the effects of social media use on performance anxiety was deemed pertinent to examine in the current study. Additional studies referenced in constructing the semi-structured interview include studies by David et al. (2018), Pompey (2016), Browning and Sanderson (2012), Lund (2020), and Hayes (2019). Multiple of these studies included semi-structured interviews within the appendices (e.g., Hayes, 2019; Naegeli, 2020) which were also referred to during this process. Additionally, the author's background knowledge drawn from experiences as

an elite U.S. figure skater was used in semi-structured interview development. The author

reflected on her experiences as an elite athlete using social media to appropriately word

questions (pertinent to figure skating) as well as add additional questions considered important to

the overall study purpose. The final question of the interview asked for each participant's

recommendations as to how elite figure skaters and other athletes should use and manage social

media. This allowed the elite athletes to draw from their experiences using and managing social

media to make recommendations for other athletes. The semi-structured interview was pilot

tested with a graduate student within the Kinesiology program at Michigan State University

assuming the role of a figure skater and responding to the questions. The student provided

recommendations to the author regarding how to conduct a thorough interview, word questions,

and probe for additional information.

Data Analysis

The Zoom recordings of each interview were transcribed verbatim. The Zoom

transcription feature was used to automatically generate a text transcript and then each transcript

was verified as correct by simultaneously viewing the transcribed text, listening to the audio

recording, and correcting inaccurate transcription.

The transcribed interviews were analyzed using thematic analysis. Developed by Braun

and Clark (2006), thematic analysis is a method of qualitative data analysis used to identify,

organize, and deduct meaning of themes relevant to answering a particular research question.

This method allows the research to "…make sense of collective or shared meanings and

experiences (Braun & Clark, 2012, p. 57)." Thematic analysis is appropriate for the current study

because it allows inductive analysis of meaning across an entire data set while also warranting

examination of particular phenomena in depth. The psychological ramifications of social media

use in elite U.S. figure skaters had not previously been examined and this flexible method of data analysis allowed for themes, subthemes, and additional relevant concepts to be examined. Additionally, thematic analysis is systematic and allows amateur qualitative researchers to learn the mechanics of coding and theme analysis. The author's lack of experience as a qualitative researcher also warranted this method.

Thematic analysis is a six-phase process: (1) familiarizing yourself with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. Table 1 below contains each of the phases of thematic analysis followed by a brief explanation of what each phase entails (Braun & Clark, 2006).

Table 1.

Phases of Thematic Analysis

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Note. Retrieved from "Using thematic analysis in psychology," by V. Braun and V. Clarke, 2006, *Qualitative research in psychology*, *3*(2), p. 87.

Phase 1 of thematic analysis is to familiarize yourself with the data. (Braun & Clark, 2006). The researcher conducted each interview, reviewed and corrected the automatically generated transcriptions (while listening to the audio recording simultaneous), and reread each transcribed interview. Additionally, the researcher began an analytic memo of notes and ideas that materialize during this process to refer back and add to during later phases. With three run-

throughs of the data, the researcher entered Phase 2 with familiarity of the data and awareness of some emerging themes.

During Phase 2, the researcher systematically analyzed each transcript and generated initial codes. Codes were used to identify, define, and interpret the unique characteristics of fragments of data. Further, codes are researcher-generated interpretations of the data and most often consist of a word or short phrase (Saldaña, 2016). Coding was conducted manually by the researcher; each transcript was printed, and codes were established by highlighting data fragments and assigning a pertinent code. As recommended by Braun and Clark (2006), the researcher gave full and equal attention to each data item and often coded extracts of data into multiple different themes of appropriate fit. In preparation of thematic analysis, the research read excerpts of *The coding manual for qualitative researchers* (Saldaña, 2016). She was able to familiarize herself with different coding methods and decide which methods would be most appropriate for the current research.

Four different methods of coding were used: Structural Coding, In Vivo Coding, Concept Coding, and Process Coding. During Structural Coding, a conceptual word or phrase is applied to the segment of data in which specifically relates the content of the excerpt to the research question. In Vivo Coding involves using a participant's exact word or short phrase as the code. The meaning broader than the single data excerpt is conveyed by a Concept Code. Lastly, Process Coding was used to annotate action or change that emerged in that data by using gerunds ("-ing" words) (Saldaña, 2016). The four coding methods were chosen for the current research because they are suitable for coding transcripts and are functional in uncovering themes, subthemes, and categories relative to the purpose of this research (Saldaña, 2016). While coding,

the researcher made notes within her analytic memo about her thoughts during the coding process which included emerging themes, relevant topics discussed, etc.

Phase 3 began when all the data had been coded and analyzed for potential themes. This phase involved the generation and assembly of potential themes as well as the classification of codes into potential themes. A theme "captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set" (Braun & Clark, 2006, p. 82). Initial codes may either form a theme or subtheme, be categorized within a preexisting theme or subtheme, or be discarded. The researcher used an Excel spreadsheet to organize the codes generated during Phase 2. As each individual code was added to the spreadsheet, the researcher began to identify themes and subthemes and organized the codes accordingly. The initial spreadsheet comprised 279 codes and 15 themes as well as a miscellaneous category of codes that did not fit within the identified themes.

Following the completion of the spreadsheet and initial theme identification, the researcher began the next phase of thematic analysis. During Phase 4, the candidate themes were refined through a two-level review process. The first level of review involved the evaluation and verification of the coded extracts within each theme. Additionally, the author considered whether the themes coalesced into a coherent pattern. This step included combining, splitting, reworking, or discarding themes (Braun & Clark, 2006). Following level one review, the recognized themes were reviewed in relation to the entire data set considering whether the candidate themes "accurately reflect the meanings evident in the data set as a whole" (Braun & Clark, 2006, p. 91). To organize and refine the initial themes identified, the researcher created a new Excel spreadsheet. Within the new spreadsheet, she sequentially added themes of similar content, combined and reorganized themes, and reevaluated the fit of themes within the entire data set.

Following the completion of phase 4, the researcher cultivated a systematic catalog of nine themes made up of 274 codes.

Phase 5 of thematic analysis entails defining and further refining the themes identified in the previous phase. A detailed analysis and write-up of each individual theme is required. In doing so, the researcher must refer to the data extracts to derive the essence of what each theme is about and convey this in the definition of the theme. This phase also includes the identification of sub-themes within themes. Sub-themes are "themes-within-a-theme" and "give structure to a particularly large and complex theme" (Braun & Clark, 2006, p. 92). The researcher referenced the codes categorized within each theme, the corresponding sections of the transcripts, and In Vivo Codes to define each of the nine themes identified in phase 4. Additionally, a total of 24 subthemes were identified and briefly defined in context of the overarching theme.

The final phase of thematic analysis is creating a write-up of the report. The final report should be "a concise, coherent, logical, non-repetitive, and interesting account of the story the data tell" (Braun & Clark, 2006, p. 93). Is it important to include data extracts as examples of the themes to support the themes identified in relation to the research question (Braun & Clark, 2006). In an effort to create a compelling narrative of the data, the author referred to the transcripts, initial codes, organized spreadsheets, and theme definitions. The final write-up follows in the results section.

CHAPTER IV

RESULTS

This investigation had a threefold purpose: (1) to develop an understanding of how elite U.S. figure skaters use social media (e.g., what platforms are used, how often they access specific platforms, how much content is related to figure skating, how often they post, etc.) and to determine if use ratings differ by gender, discipline, and competition tier; (2) to investigate the purposes of social media use by elite U.S figure skaters (e.g., for social support, to promote self, to occupy time, etc.); and (3) to investigate the psychological implications perceived by elite U.S. figure skaters to result from social media use. Results relative to these purposes will now be presented.

This chapter will be divided into two separate sections: Phase 1 survey results and Phase 2 semi-structured interview results. The quantitative data retrieved from the Phase 1 survey was analyzed with the purpose of providing a preliminary understanding of elite U.S. figure skater social media use (Purpose 1), purposes of use (Purpose 2), and subsequent perceived psychological implications (Purpose 3). Additionally, the survey results were used to evaluate the difference in social media use and subsequent psychological ramifications between groups (e.g., males vs. females, single skaters vs. pairs). Phase 2 results will be reviewed in the latter section of the chapter. The qualitative results of the semi-structured interviews allowed for an in-depth analysis relative to Purpose 3 of this current study.

Phase 1 Survey

Descriptive Statistics

Sample Characteristics. Of the 81 participants contacted, a total of 37 athletes completed the survey in full (n = 37). This represents a return rate of 45.7%. The participants

were 20 males (54.1%) and 17 females (45.9%). As for the participants' figure skating discipline, nine (24.3%) competed in men's singles, eight (21.6%) competed in ladies singles, 10 (27.0%) competed in pairs, and 10 (27.0%) competed in ice dance. The mean age for the participants was 23.27 (SD = 3.6) with participants ranging from age 18 to age 33.

All participants had competed at U.S. National Championships and 70.3% (n= 26) of participants have competed at international figure skating competitions. Many of the athletes have competed at prestigious international events, including Grand Prix series competitions (n = 16), The Grand Prix Final (n = 7), Four Continents Championships (n = 18), World Championships (n = 9), and The Olympic Games (n =7). It is important to note that these events are not mutually exclusive. Additionally, the participants have competed nationally at the senior level for an average of 4.57 (SD = 3.2) years.

Social Media Use. On average, the participants began using social media at the age of 14.00 (SD = 2.3). Further, participants reported being active on an average of 5.00 (SD = 1.6) different social media platforms. The platform used by the most participants was Instagram (n =37, 100%) followed by Snapchat (n = 33, 89.2%), Facebook (n = 29, 78.4%), and Twitter (n = 26, 70.3%). Additionally, Instagram was chosen as the participants' favorite platform to use in general and for purposes related to figure skating by 70.3% (n = 26) and 73% (n = 27) of the participants, respectively. Participants were also asked how much time they spend on social media (all platforms) per day. The greatest number of participants (n = 17, 45.9%) indicated they spend one to two hours on social media per day. Further, eight participants (21.6%) reported using social media for over three hours per day, seven participants (18.9%) reported using social media for two to three hours per day, and five participants (13.5%) reported using social media for thirty minutes to an hour per day. Interestingly, none of the participants reported using social

media for less than 30 minutes per day. In terms of social media content production, 27 participants (73.0%) reported posting (e.g., uploading content onto a platform) zero to five times per week, 8 participants (21.6%) reported posting five to 10 times per week, and 2 participants (5.4%) reported posting 15 to 20 times per week. The mean number of times the participants appeared on a live stream or television in the previous year is 5.07 ($SD = 3.196$) times with a range of one to 15 times.

In an effort to obtain a more thorough understanding of the participants daily social media use, measures of the participants daily use and frequency of access relative to each platform were also included in the survey. Participants selected (on a Likert scale) how much time they spend on each individual platform daily. Table 2 includes the results reported in terms of the percent and number of athletes to select each choice relative to each major social media platform. A significant number (n = 27, 72.9%) of the participants spend between 30 minutes and two hours on Instagram daily. Interestingly, many participants reported not using other platforms (Twitter, Facebook, LinkedIn) on a daily basis at all. The frequency of access to each social media platform is reported in Table 3. In examining the table, it is evident that Instagram was accessed the most with (70.3% [n = 26] of the participants accessing the platform several times a day), followed by Snapchat and TikTok. This portion of the results provides support for Instagram being the favored platform.

Table 2.

Daily Time Spent on Social Media, % (n)

Platform	Over 2 hours	1 to 2 hours	30 minutes to 1 hour	Less than 30 minutes	Not used on daily basis	N/A (Platform is never used)
Twitter	0% (0)	2.7% (1)	18.9% (7)	24.3% (9)	27.0% (10)	27.0% (10)
Facebook	0% (0)	0% (0)	10.8% (4)	13.5% (5)	54.1% (20)	21.6% (8)
Instagram	13.5% (5)	37.8% (14)	35.1% (13)	13.5% (5)	0% (0)	0% (0)
Snapchat	5.4% (2)	10.8% (4)	16.2% (6)	37.8% (14)	21.6% (8)	8.1% (3)
TikTok	10.8% (4)	10.8% (4)	18.9% (7)	0% (0)	21.6% (8)	37.8% (14)
LinkedIn	0% (0)	0% (0)	2.7% (1)	2.7% (1)	32.4% (12)	62.2% (23)
YouTube	5.4% (2)	13.5% (5)	27.0% (10)	18.9% (7)	16.2% (6)	18.9% (7)
Other	0% (0)	2.7% (1)	0% (0)	2.7% (1)	0% (0)	94.6% (35)

Table 3.

Frequency of Social Media Use, % (n)

Platform	Several times a day	Daily	Several times a week	Weekly	Several times a month	Monthly	N/A (Platform is never used)
Twitter	8.1% (3)	24.3% (9)	10.8% (4)	10.8% (4)	5.4% (2)	5.4% (2)	35.1% (13)
Facebook	5.4% (2)	13.5% (5)	8.1% (3)	13.5% (5)	2.7% (1)	18.9% (7)	35.1% (13)
Instagram	70.3% (26)	27.0% (10)	2.7% (1)	0% (0)	0% (0)	0% (0)	0% (0)
Snapchat	37.8% (14)	24.3% (9)	13.5% (5)	2.7% (1)	2.7% (1)	8.1% (3)	10.8% (4)
TikTok	24.3% (9)	10.8% (4)	5.4% (2)	10.8% (4)	8.1% (3)	0% (0)	40.5% (15)
LinkedIn	0% (0)	2.7% (1)	8.1% (3)	0% (0)	10.8% (4)	8.1% (3)	70.3% (26)
YouTube	27.0% (10)	16.2% (6)	13.5% (5)	13.5% (5)	5.4% (2)	8.1% (3)	16.2% (6)
Other	0% (0)	5.4% (2)	0% (0)	0% (0)	0% (0)	0% (0)	94.6% (35)

The final portion of the survey focused on participants' social media use corresponding to their sport. From the researcher's prior experience as an elite figure skater, she hypothesized that the psychological ramifications that figure skaters experience from social media are most likely an outcome of content related to figure skating being consumed. As a result, she decided it was important to consider the amount of content related to figure skating that participants are viewing on each platform. Table 4 depicts the percentage of content related to figure skating viewed on each platform by the participants. Similar to the two previous scales, this was measured using a Likert scale and is reported as the percentage of participants that selected each option. Almost

one third (29.7%) of the participants reported that 75 to 100% of the content they viewed on Twitter was related to figure skating.

Table 4.

Content on Social Media Related to Figure Skating, % (n)

Platform	75 to 100% of content	50 to 75% of content	25 to 50% of content	Less than 25% of content	None	N/A (Platform is never used)
Twitter	29.7% (11)	18.9% (7)	8.1% (3)	10.8% (4)	5.4% (2)	27.0% (10)
Facebook	8.1% (3)	8.1% (3)	13.5% (5)	24.3% (9)	18.9% (7)	27.0% (10)
Instagram	13.5% (5)	32.4% (12)	29.7% (11)	24.3% (9)	0% (0)	0% (0)
Snapchat	0% (0)	0% (0)	2.7% (1)	40.5% (15)	48.6% (18)	8.1% (3)
TikTok	0% (0)	2.7% (1)	13.5% (5)	24.3% (9)	21.6% (8)	37.8% (14)
LinkedIn	0% (0)	0% (0)	0% (0)	8.1% (3)	24.3% (9)	67.6% (25)
YouTube	2.7% (1)	8.1% (3)	16.2% (6)	37.8% (14)	16.2% (6)	18.9% (7)
Other	0% (0)	0% (0)	0% (0)	2.7% (1)	2.7% (1)	94.6% (35)

The survey also included two measures concerning the number of changes made to social media use surrounding major competitive events. The mean number of changes to social media use surrounding major competitive events is 1.68 (*SD* = 1.5). The survey then included a measure in which participants selected which specific changes they endorse. Table 5 provides the number of athletes that make each social media change before or during competitions. Participants were instructed to select the category 'other' and describe the change they make (in the text box) to their social media use if they engage in a change to social media use not included

as a choice. One participant made this selection and reported that they "mute certain accounts that post about the event". Table 5 shows that most of the social media changes are made in effort to reduce social media use surrounding major competitive events. Accordingly, the social media change made by the largest number of participants (n = 16, 43.2%) is limiting the amount of time spent on social media. Only four participants (10.8%) reported increasing the amount of content that they post while a much larger portion of participants reported making efforts to decrease their social media use.

Table 5.

Social Media Changes During Major Competitive Events, n (%)

Change in Social Media Use	
Stay completely off social media	1 (2.7%)
Only use some social media platforms	14 (37.8%)
Limit amount of time spent on social media	16 (43.2%)
Stay off social media during the day of competition	9 (24.3%)
Only post on social media if necessary (e.g., posts regarding sponsorship)	6 (16.2%)
Only use social media to stay in touch with significant others (e.g., friends and family)	10 (27.0%)
Post on social media more frequently	0 (0.0%)
Post more often about my experiences training or at the event	4 (10.8%)
Other	1 (2.7%)

Purposes of Social Media Use. The purposes that drive participant social media use were measured using two scales. The first being the Social Media Usage Aims Scale (SMUAS) and the second being a modified version of the SMUAS to measure the participants' purposes of social media use relative to figure skating. As mentioned in the previous chapter, the SMUAS is divided into seven subscales and each item is scored on a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The mean score for each subscale was computed for each participant and then an overall mean for each subscale was computed for all participants (using

the subscale means computed for each participant). The author inadvertently left one item ("to find information about celebrities and keep track of them") off the SMUAS off the survey. As a result, the scale used comprised 29-items and the subfactor, making, expressing, or presenting a more popular oneself (MEPO) included one less item. Table 6 includes overall means for each subscale within the SMUAS.

Table 6.

SMUAS – Subscale Means

Subscale	Mean score (SD)
Maintain existing relationships (MER)	3.82 (.66)
Meeting new people and socializing (MNPS)	2.60 (.67)
Making, expressing, and presenting a more popular oneself (MEPO)	2.19 (.87)
Passing time (PT)	3.75 (.87)
A task management tool (ATMT)	2.47 (.55)
Entertainment (ENT)	3.20 (.54)
Information and education (IAE)	3.15 (.55)

These results indicate that participants use social media mostly for the purposes of maintaining existing relationships (MER) and passing time (PT) with social media being used the least for the purpose of managing tasks (ATMT).

In an identical process, the overall mean for each subscale of the modified SMUAS (measuring the purposes of social media use related to figure skating) was calculated. Additionally, a mean score for the added subscale (obtaining or promoting sponsors, OPS) was calculated. Table 7 includes the overall mean for each subscale within the modified SMUAS.

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Table 7.

Modified SMUAS – Subscale Means

Subscale	Mean score (SD)
Maintain existing relationships (MER)	3.75 (.67)
Meeting new people and socializing (MNPS)	2.87 (.68)
Making, expressing, and presenting a more popular oneself (MEPO)	2.83 (.87)
Passing time (PT)	3.18 (1.06)
A task management tool (ATMT)	2.53 (.88)
Entertainment (ENT)	3.53 (.86)
Information and education (IAE)	3.14 (.75)
Obtaining or promoting sponsors (OPS)	3.78 (.82)

The participants' purposes behind social media use related to figure skating show some similarities to those of using social media in general; a relatively larger overall mean was reported for maintaining existing relationships (MER) while a relatively low overall mean was reported for using social media as a task management tool (ATMT). Mean overall scores of purposes of social media use related to figure skating compared to purposes of social media us in general were higher in the following categories, meeting new people and socializing (MNPS), making, expressing, or presenting a more popular oneself (MEPO), as a task management tool (ATMT), and entertainment (ENT). Additionally, the overall mean for the subscale, obtaining or promoting sponsors (OPS), was the largest of all subscales within the modified SMUAS.

Psychological Ramifications of Social Media Use. The scale used to measure the perceived psychological ramifications of social media use was comprised of 30 items (see Appendix E). A mean score was calculated for each item on the scale. Being that each item was scored on a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5), item means had the possibility of ranging from one to five. Participants indicated that social media has the largest influence (largest mean scores) on the following items: "positively affect me as a figure skater"

($M = 3.70$, $SD = .878$), "negatively affect me as a figure skater" ($M = 3.95$, $SD = .815$),

"negatively affect my training" ($M = 3.62$, $SD = .924$), "negatively affect my performances" ($M = 3.59$, $SD = .896$), "increase my stress surrounding figure skating" ($M = 3.65$, $SD = .978$), and

"make me feel proud of my accomplishments" ($M = 3.62$, $SD = .982$). In contrast, participants

indicated that social media has the smallest influence (smallest mean score) on the following

items: "decrease my nerves prior to competing" ($M = 2.59$, $SD = .798$) and "reduce anxiety about

my skating ability" ($M = 2.49$, $SD = 1.02$). Additionally, for most of the positive ramifications

measured, there is a related negative ramification measured (e.g., "reduce my stress surrounding

figure skating" and "increased my stress surrounding figure skating"). This survey was

purposefully structured in this way to allow for similar item comparison. For example, the mean

score for "negatively affect my skating performances" is higher than "positively affect my

skating performance". This indicates that participants overall perceive social media to have a

greater negative impact (than a positive impact) on how they perform at skating competitions.

Refer to Table 8 for additional items that allow for similar comparisons. Table 6 includes the

mean score for each variable measured within the psychological ramifications of social media

use scale.

Table 8.

Psychological Ramifications of Social Media Use - Mean Scores for Each Item

Social media use can…	Mean Score (SD)
Positively affect me as a figure skater.	3.70 (.88)
Negatively affect me as a figure skater.	3.95 (.82)
Positively affect my training.	3.32 (1.03)
Negatively affect my training.	3.62 (.92)
Positively affect my skating performances.	2.89 (.81)
Negatively affect my skating performances.	3.59 (.90)
Put me in a good mood for skating, training, and competing.	3.30 (1.02)
Put me in a bad mood for skating, training, and competing,	3.59 (.93)
Make me upset during skating, training, and competition.	3.43 (1.02)
Make me calm during skating, training, and competition.	2.73 (.90)
Reduce my stress surrounding figure skating.	2.78 (1.08)
Increase my stress surrounding figure skating.	3.65 (.98)
Increase my motivation for figure skating.	3.41 (1.14)
Decrease my motivation for figure skating.	2.86 (1.03)
Be challenging to deal with mentally when training.	3.38 (1.19)
Be challenging to deal with mentally when competing.	3.62 (1.16)
Produce anxiety about my skating ability.	3.38 (1.23)
Reduce anxiety about my skating ability.	2.49 (1.02)
Increase my confidence in my skating skills.	2.86 (.98)
Decrease my confidence in my skating skills.	3.19 (1.05)
Allow me to relax during figure skating events.	2.70 (1.05)
Make me anxious during figure skating events.	3.19 (1.08)
Make me feel proud of my accomplishments in figure skating.	3.62 (.98)
Make me upset following a disappointing performance.	3.22 (1.16)
Affect how I feel about my body as a figure skater.	3.32 (1.13)
Make me feel self-conscious about my body as a figure skater.	3.27 (1.17)
Increase my nerves prior to competing.	2.97 (1.07)
Decrease my nerves prior to competing.	2.59 (.80)
Distract me from my training.	3.22 (.98)
Distract me when I am at a competition.	3.30 (.97)

Of the 30 items, 12 are interpreted as positive psychological outcomes (e.g., "positively affect me as a figure skater"), and 15 as negative psychological outcomes (e.g. "decrease my motivation for figure skating"). To allow calculation of an overall psychological ramification mean, negative items were recoded as reverse scores. Therefore, the more agreement a

participant expressed with a negative psychological outcome of social media, the lower the recoded score. This allows positive and negative items to be considered together.

Three of the items could be interpreted as neutral by respondents. The items being, social media can "affect how I feel about my body as a figure skater", "distract me from my training", and "distract me when I am at a competition". Spearman correlation coefficients were calculated for each of the three possible 'neutral' variables and all 27 other variables. A significant correlation ($p < 0.05$) was found between "affect how I feel about my body as a figure skater" and all 15 negative variables. In contrast, the item had a significant correlation ($p < 0.05$) with only one positive item. As a result, the item "affect how I feel about my body as a figure skater" was determined as a negative psychological outcome and recoded as a reverse score. A significant correlation ($p < 0.05$) was found between "distract me from training" and 10 negative variables. In contrast, the item had a significant correlation ($p < 0.05$) with only one positive item. As a result, the item "distract me from training" was determined as a negative psychological outcome and recoded as a reverse score. Lastly, a significant correlation ($p < 0.05$) was found between "distract me when I am at competition" and 13 negative variables. In contrast, the item had a significant correlation ($p < 0.05$) with five positive items. As a result, the item "distract me when I am at competition" was determined as a negative psychological outcome and recoded as a reverse score.

After recoding all variables, an overall mean psychological ramification score was calculated (using the recoded negative variables) for each participant. Each mean is an interpretation of the impact social media has on the mentality (surrounding figure skating) of the participant. Here it is important to note that within the Likert scale, the answer (3) *neutral* indicates an impartial position in response to the question, meaning that the participant does not

perceive social media to impact their mentality relative to that item. Therefore, any mean score above three indicates an overall more positive (than negative) psychological impact of social media on the participant relative to figure skating. Further, any mean score below three indicates an overall more negative (than positive) psychological impact of social media on the participant relative to figure skating. Two additional means were also calculated for each participant: one mean of all the positive psychological outcome items (n = 12) and one mean of all the negative psychological outcome items (n = 18). For the negative psychological outcomes mean, the recoded variables were not used. Therefore, any score over three indicates that the athlete perceives social media to have a greater negative (than positive) psychological impact. Table 9 contains the overall, positive, and negative psychological outcome mean scores for each participant.

Table 9.

Psychological Ramifications of Social Media Use - Mean Scores for Each Participant

Participant	All items	Positive items	Negative items
1	2.67	3.08	3.61
2	3.00	3.67	3.44
3	2.80	2.92	3.28
4	3.43	3.92	2.89
5	2.40	2.67	3.78
6	2.07	1.92	3.83
7	1.70	1.83	4.39
8	2.97	3.92	3.67
9	2.40	3.25	4.17
10	3.10	3.67	3.28
11	1.90	2.17	4.28
12	2.83	4.58	4.33
13	2.83	2.92	3.22
14	3.00	3.33	3.22
15	2.27	1.58	3.28
16	3.13	3.83	3.33
17	2.77	3.33	3.61
18	3.00	3.08	3.06
19	3.57	2.67	1.83
20	3.23	3.42	2.89
21	2.90	3.17	3.28
22	1.73	2.67	4.89
23	2.27	2.17	3.67
24	2.70	3.67	3.94
25	3.20	2.67	2.44
26	3.47	3.67	2.67
27	2.73	3.75	3.94
28	3.07	2.83	2.78
29	3.30	3.75	3.00
30	3.63	3.17	2.06
31`	2.63	3.17	3.72
32	2.40	2.67	3.78
33	3.40	1.17	1.11
34	2.10	3.08	4.56
35	3.10	3.17	2.94
36	2.63	3.00	3.61
37	2.83	2.75	3.11
Mean	2.79	3.03	3.38

The overall psychological ramification mean scores range from 1.70 to 3.63 with an overall mean of 2.79 (SD = .50). This implies that, overall, this sample of participants experienced more negative psychological ramifications of social media use than positive psychological ramifications. Participant seven had the lowest overall psychological ramification mean score with a mean of 1.70 indicating social media has a strong negative impact on their mentality surrounding figure skating. Correspondingly, participant seven had a very high score for the negative items mean and a low score for the positive items mean indicated their figure skating psyche is more negatively (than positively) impacted by social media use. In contrast, participant 30 had the highest overall psychological ramifications mean score, 3.63, indicating social media had a greater positive impact on their mentality surrounding figure skating. Of the 37 participants, 20 (54.1%) had a higher mean score for the negative items than the positive items, indicating that social media is perceived to have greater negative psychological ramifications by a majority of the participants.

Pearson Correlations

Pearson Product Moment correlations coefficients were computed to analyze possible linear associations among the continuous variables. The following continuous variables were considered: age, starting age of social media use, number of years as a national competitor, number of years as an international competitor, number of social media platforms used, number of changes made to social media use prior/during competitions, mean daily social media use (all platforms), mean daily Instagram and Twitter use, mean frequency of social media use, mean frequency of Instagram and Twitter use, positive psychological ramifications, negative psychological ramifications, and overall psychological ramifications. The variables, mean daily Instagram and Twitter use as well as mean frequency of Instagram and Twitter use, have not

previously been discussed. These variables were computed and included in the analysis following review of the descriptive statistics. In reviewing the descriptive results, it was noticed that Twitter and Instagram were the platforms used the most for purposes related to figure skating (e.g., 25-100% of the content viewed on Twitter is related to figure skating for 56.7% of participants, 25-100% of the content viewed on Instagram is related to figure skating for 75.6% of the participants). Therefore, the researcher hypothesized that Twitter and Instagram use may influence the psychological ramifications of social media use more than other platforms in which participants do not consume as much social media. The researcher hypothesized this because increased exposure to applications with more figure skating content, may also increase athlete exposure to positive or negative figure skating content (e.g., fan criticisms, competitor content, predicted competition results) that could impact the psychological ramifications they perceive.

A Pearson correlation matrix was computed with the 13 continuous variables listed previously (see Table 8). For purposes of this study, the Pearson correlations analyzed for significance were those between the variables listed above with each of the three psychological ramifications variables (e.g., age and overall psychological ramifications, number of platforms used and negative psychological ramifications). To detect significant correlations, a significance level of $\alpha = .05$ was set a priori. Of the 36 Pearson correlation coefficients computed, two were identified as statistically significant ($p < .05$). There was a significant weak, positive correlation between the number of changes to social media use before/during competitions and negative psychological ramifications $r(35) = .354, p = .031$. This suggests that participants who make more changes to social media before or during competitions experience more negative psychological ramifications from social media use. There was also a significant weak, negative correlation between mean frequency of social media use and overall psychological ramifications,

$r(35) = -.359, p = .029$. This suggests that participants who use social media more frequently

experience more negative psychological ramifications from social media use. Because so many

correlations were calculated it is possible that the Pearson correlations identified as significant

may be a product of chance rather than meaningful observation. As can be seen in Table 10,

there were other significant correlations. However, those will not be discussed as they are not

related to the purposes of this study.

Table 10.

Pearson Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.00												
2	.613*	1.00											
3	.763*	.710*	1.00										
4	.665*	.723*	.899*	1.00									
5	.023	-.148	-.260	-.388*	1.00								
6	.134	-.064	.204	.075	.028	1.00							
7	.244	-.138	-.062	-.090	.281	.079	1.00						
8	.237	-.083	.069	.153	.268	-.002	.553*	1.00					
9	.241	.143	.324	.346*	-.620*	.150	.181	.146	1.00				
10	.336*	.121	.275	.292	.107	.181	.252	.514*	.263	1.00			
11	.001	.095	-.087	-.007*	.043	-.304	.052	-.031	.022	-.017	1.00		
12	-.176	-.113	-.075	-.085	-.007	.035	-.163	-.168	-.359*	.022	.429*	1.00	
13	-.111	-.178	.048	-.046	-.051	.354*	-.159	-.072	-.249	.033	-.825*	.157	1.00

*$p \leq .05$

Variables: (1) age, (2) starting age of social media use, (3) number of years as a national competitor, (4)

number of years as an international competitor, (5) number of platforms used, (6) number of changes to

social media for competitions, (7) mean daily social media use, (8) mean daily Instagram and Twitter use,

(9) mean frequency of social media use, (10) mean frequency of Instagram and Twitter use, (11) overall

psychological ramifications, (12) positive psychological ramifications, (13) and negative psychological

ramifications.

ANOVAs for Gender, Discipline and Competition Tier Differences

In an attempt to analyze the descriptive results of the survey more thoroughly, the researcher computed and analyzed multiple three-way between-groups factorial ANOVAs. A three-way between-groups factorial ANOVA was used to determine if there were significant main and interaction effects between gender, skating discipline, and competition tier with a dependent variable. The dependent variables used (in three separate ANOVAs) were overall psychological ramifications (positive and negative items combined), positive psychological ramifications, and negative psychological ramifications. All three ANOVAs were run on the full sample of participants (n = 37).

The results of the 2 (gender: male/female) x 2 (discipline: singles/pairs) x 2 (competition tier: U.S. Champs only/U.S. Champs and international events) ANOVA on the overall psychological ramifications dependent variable revealed that there was no significant three-way interaction $F(1,29) = 1.019$, $MSE = .208$, $p = .321$. Further analysis showed there was not a significant interaction effect between gender and discipline. However, there was a statistically significant interaction of discipline and competition tier on overall psychological ramifications, $F(1,29) = 5.627$, $MSE = 1.148$, $p = .025$, $\eta^2 = .163$. This revealed that skaters representing singles or pairs disciplines had a different effect on overall psychological ramifications dependent on their competitive tier. The estimated marginal means were used to determine the nature of this interaction. Recall that, the mean overall psychological ramifications of social media use was calculated by computing a mean score for all positive variables and all recoded negative variables scored on a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). Therefore, the estimated marginal means are an interpretation of the impact social media has on the mentality (surrounding figure skating) of the participants. Therefore, an estimated

marginal mean for overall psychological ramifications above three indicates an overall more positive (than negative) impact of social media while any score below three indicate an overall more negative (than positive) impact of social media on participants relative to figure skating (due to the answer (3) *neutral* indicating an impartial response to the items within the survey). An inspection of Table 11 shows the effect of discipline on overall psychological ramifications differs, depending on level of competition. Specifically, Tier 1 single skaters reported significantly more positive psychological effects than their single skater Tier 2 counterparts. In contrast, Tier 1 pair skaters reported more negative psychological effects from social media than Tier 2 pair skaters. Tier 1 single skaters also reported more positive psychological ramifications than Tier 1 pair skaters while Tier 2 pairs skaters report more positive psychological ramifications than Tier 2 singles skaters.

Table 11.

Estimated Marginal Means for Discipline and Competition Tier Interaction on Overall Psychological Ramifications

	Tier 1	Tier 2
Singles	2.894	2.611
Pairs	2.467	2.990

There was also a significant interaction of gender and competition tier on overall psychological ramifications, $F(1, 29) = 5.674$, $MSE = 1.158$ $p = .024$, $\eta^2 = .164$, revealing that gender had a different effect on overall psychological ramifications dependent on participant competition tier. The estimated marginal means were used to explore and determine the nature of this interaction. Table 12 shows the estimated marginal means for each cell. In examining the estimated marginal means, it can be inferred that the effect of gender on overall psychological ramifications is opposite, depending on level of competition. That is, female Tier 1 skaters

reported more positive psychological ramifications compared to Tier 2 females while male Tier 1 skaters reported more negative psychological ramifications than Tier 2 skaters.

Table 12.

Estimated Marginal Means for Gender and Competition Tier Interaction on Overall Psychological Ramifications

	Tier 1	Tier 2
Female	2.925	2.640
Male	2.436	2.961

An additional three-way between-groups factorial ANOVA was conducted with independent variables, gender, discipline, and competition tier and dependent variable, positive psychological ramifications (mean scores of all the positive psychological outcome items, n = 12). This analysis was used to examine the main effects and interactions of gender, discipline, and competition tier as they relate to positive psychological ramifications score. Results showed the three-way interaction was not statistically significant, $F(1, 29) = .200$, $MSE = .098$, $p = .658$. Additionally, no statistically significant two-way interactions or main effects were found.

A final three-way between-groups factorial ANOVA was conducted with independent variables, gender, discipline, and competition tier and dependent variable, negative psychological ramifications (mean scores of all the negative psychological outcome items, n = 18).. Results showed the three-way interaction was not statistically significant, $F(1, 29) = .629$, $MSE = .304$, $p = .434$. There was, however, a significant interaction of gender and competition tier, $F(1, 29) = 5.949$, $MSE = 2.873$, $p = .021$, $\eta^2 = .170$. This finding reveals that gender had a different effect on negative psychological ramifications dependent on participant competition tier. Here it is important to note that mean negative psychological ramifications of social media use were calculated by computing a mean for all the negative variables (not recoded) scored on a Likert

scale ranging from *strongly disagree* (1) to *strongly agree* (5). Therefore, the estimated marginal

means are an interpretation of the amount of negative impact social media has on the mentality

of the participants (surrounding figure skating) and higher mean scores signify a greater negative

implication to participant mentality. An inspection of the estimated marginal means shows that

the effect of gender on negative psychological ramifications is opposite, depending on level of

competition (see Table 13). Specifically, Tier 1 females differed from Tier 2 females, reporting

less negative psychological ramifications while Tier 1 males showed the opposite pattern

reporting greater negative psychological ramifications than their Tier 2 counterparts. A further

inspection of the means also shows that male Tier 1 skaters reported more negative

psychological ramifications than female Tier 1 skaters while male Tier 2 skaters reported less

psychological ramifications than female Tier 2 skaters.

Table 13.

Estimated Marginal Means for Gender and Competition Tier Interaction on Negative
Psychological Ramifications

	Tier 1	Tier 2
Female	3.299	3.704
Male	3.782	2.912

Phase 2 Interview

　　　　Phase 2 of the study was designed to further investigate the perceived psychological

implications of social media use by elite U.S. figure skaters (Purpose 3). Accordingly, eight elite

U.S. figure skaters participated in a semi-structured interview designed intentionally to inform

Purpose 3.

Participant Selection

Eight individuals were purposefully sampled from the Phase 1 participant group. Multiple factors were taken into consideration during participant selection. First, the participants' scores on the psychological ramifications of social media use scale were analyzed and participants with the highest and lowest scores (indicating that social media use had the most effects on their psychological states) were placed in a subgroup. Once participants were placed into this subgroup, the following factors were considered together for inclusion in the sample: amount of daily social media use, level of competition, number of social media followers, and changes to social media use during major competitive events. As a result, 12 individuals were recruited for Phase 2 participation resulting in eight consenting to participate.

Sample Characteristics

Each participant was asked 16 questions (with the addition of probing questions). The interviews lasted between 17 to 37 minutes. Prior to discussing thematic analysis results, sample characteristics will be briefly overviewed.

Of the eight participants in Phase 2, three were males and five were females. The mean age of the sample was 23.75 ($SD = 4.33$) years with participants ranging from 18 to 31 years of age. The mean number of times the participants have competed nationally at the senior level was 5.88 ($SD = 3.40$). Of the participants, two competed solely at the national level while the other six participants had competed at numerous international competitions during their career. Specifically, three of the participants have competed in World Championships and two have competed at the Olympic Games. The mean number of platforms used by the participants in Phase 2 was 4.25 ($SD = 1.50$). Six of the participants favored Instagram over all other social media platforms and Instagram was the only social media platform used by all eight participants.

For a more thorough representation of the participants, refer to the idiographic profiles in Appendix G. Each idiographic profile includes information about participant demographics as well as a summary of interview findings.

Psychological Ramifications of Social Media Use

In an effort to uncover themes and subthemes related to the psychological ramifications of social media on elite U.S. figure skaters (Purpose 3), the researcher conducted thematic analysis of the eight interview transcripts. Thematic analysis resulted in the identification of nine themes and 24 subthemes. Each theme and the corresponding subthemes will be reviewed in the following sections.

Theme 1: The Expectation to Have a Social Media Presence. When asked how social media influences the participants' role as a figure skater, five of the eight participants described feeling an expectation to create and maintain a presence on social media. Participants noted that they felt pressure to maintain a social media presence whether it be to appease fans (P2), gain followers and fame (P2 and P4), fulfill "social media roles" (P6), and/or receive attention (P3). One participant (P3) even noted that social media is "crucial" as a figure skater. In an effort to maintain this presence, some participants indicated they post training videos, competition results, achievement updates (e.g., landing a new jump), and/or pictures of activities related to figure skating (e.g., participation in shows). Additionally, one participant (P1) mentioned that they received training from U.S. Figure Skating regarding how to create an "image" on social media. Overall, the pressure felt by the participants was explained in a negative manner often leading to stress and even "resentment" (P6) towards posting on social media.

Anxiety Surrounding Content Creation. The pressure to have a social media presence naturally led many participants to produce content related to their figure skating career.

However, with this pressure and for many, a large social media following, participants indicated feeling anxiety surrounding creating and posting content. One participant (P1) noted they must "get the guts" to post. Other participants (P4, P5, and P6) explained that they were aware that individuals over-scrutinize content online (and often leave negative comments) which creates apprehension when making decisions about what and when to post. This paralleled the pressure the participants felt to cultivate a perfect image, because in attempting to do so, the participants partook in an internal battle questioning whether the content they created and intended to post was faultless.

Theme 2: Social Media is Fuel for a "Comparison Game". With the plethora of social media platforms, each uniquely used for different purposes, individuals relied on platforms to share information, post about what they were doing, and keep followers updated about life accomplishments. Participants (P1, P2, P3, P5, and P8) explained that this creates the ability to compare themselves to individuals online. Participant 1 called this a "comparison game". Participants (P1, P3, P2, and P8) described that comparing themselves to their competitor's social media content can result in a cycle of self-doubt about one's own capabilities.

"I think the comparison game just gets so strong. Um, and I don't want to call it a weakness, but like, if you're not aware of that (self-comparison to others), it's so easy to fall into it really being detrimental where, um, like you're just constantly, again, whether it's true or not, you're given the message like, "oh, you're not doing enough or you can't do enough" or "somebody's doing more or something better", purely because of what is being crafted to be shown to the public. Um, and if you're not aware that that's (social media content) specifically crafted to look like that, then it's really easy to like, take it personally and have it hit you hard."

Participant 5 explained that there is "an intense pressure to match" what people are doing online and if you are not capable of matching it, it can produce a reevaluation of "your worth" as a figure skater.

Social Media is a Highlight Reel. Participants described that social media content is "filtered" (P3) and intentionally crafted to show only the best parts of your life (P1, P8, and P6). Participant 8 explained this ability for individuals to craft a highlight reel on social media:

> "We see all these videos of people doing these incredible things, or even your competitor, and people will post obviously the best takes that they get or like the best jumps that they'll do, or snapshots of like new programs and this and that, and I mean, we don't know what it took to get there or anything, we just see what people want us to see, so I think in that sense, if you're not there yet, or you're working to get there, it can make you feel like you're behind the 8 ball… So, I think in that sense it can definitely make you, like there's that comparative aspect that I think is really detrimental."

As indicated by this participant as well as multiple others, social media assumes the role of a highlight reel and often further contributes to self-doubt that is fueled by the "comparison game".

Fear of Missing Out (FOMO). "There is definitely a huge FOMO" explained participant 3. Simply put, social media acting as a platform to share the best parts of life fuels self-comparison, and as a result, creates a concern for, or anxiety around, missing opportunities (e.g., fear of missing out, FOMO). Participants 1, 3, and 5 all described that figure skaters post about opportunities they are experiencing (e.g., competitions and shows) and viewing this content, paired with social comparison creates a feeling of being left out.

Judged Sport Fuels Comparison. Figure skating is a judged sport; "you're pit up against each other" (P3). Participants 1, 3, and 8 noted that this created further fuel for comparison of the self to others online. Participant 1 further explained that figure skating is an "aesthetically judged sport" which can contribute to a comparison of body shape and size to others.

Theme 3: Social Media Content Can Be Triggering. The participants were not hesitant in expressing that content posted on social media can evoke responses of many different emotions. Participant 1 explained that the type of emotional reaction that occurs is often dependent on the type of content viewed. Participant 3 described that there is a "buzz" on social media leading up to competitions (e.g., posts about the competition, predictions of results, etc.) which either lead to an excitement to compete or anxiety surrounding the pressure to perform well. Participants 5 and 6 stated that the impact of social media content on individuals is often much larger than anticipated by those who post said content. Five different categories of content were detailed to elucidate psychological responses by athletes and will be detailed below.

Content is Often an Altered Representation of Self. As mentioned within the discussion of theme 2, social media content is crafted by each individual to represent themselves in a way in which they want others to see them. Participants 1, 2, 3, and 8 all indicated that they were aware that the way in which individuals represent themselves on social media is often different than in real life. For example, experiences are represented falsely (P3), people edit their bodies (P1), and there are often false proclamations regarding athletes, events, etc. (P1 and P8). Participant 2 is "fed up" with it. Participants conveyed an annoyance or irritation as a result of this phenomenon occurring.

Negative Content Aimed at Athletes. It is inevitable to avoid negative content on social media, whether it be aimed at celebrities, athletes, or even people you know. Participants within

this study were familiar with being the target of negative comments (P2, P3, P5, and P7). This is most likely a result of the participants being subjected to increased online attention due to accomplishments, fame, and publicity as a result of being an elite figure skater. However, it was reported by the participants that negative comments on the internet can be "triggering" (P5), "upsetting" (P7), and can fuel self-doubt (P7). Participants 5 said people have "no authority" to post negatively about others especially because individuals who post on social media are often uneducated about the finer details of the sport (this was also noted by P7). Participant 2 recounted a specific experience in which people took to social media to bash her for a situation out of her control; people were sending her "death threats". She was appalled when reading such comments. These negative comments made on social media were reported to affect the participants' mindsets whether it be during training or competition.

The Gravitation Toward Negative Content. "We gravitate towards the negative" said participant 3 when asked about how their mindset was affected by social media when training or competition. Interestingly enough, participants 4, 5, and 7 also noted experiencing this. It is hard to ignore the negative comments, explained participants 4 and 7. We "just latch onto the negative things (I think) so quickly that that's (like) a big risk" (P5) to skater mentality. All four of these participants (P3, P4, P5, and P7) expressed that negative comments outweigh the positive and this is important to consider because of the implications of negative comments discussed in the section above.

Competitor Content Creates Unease. Competitor content shared on social media and the resulting impact on participants was discussed by over half of the sample. Content posted by competitors can include new skills (e.g., jumps, spins, pairs lifts), program run-throughs, competition results, and more. Participants (2, 3, and 8) indicated that this can cause anxiety

(about measuring up to the athlete that posted the content) and shake their confidence. Participants 2 and 3 further expressed that they have felt overlooked when a competitor receives attention, praise, and even sponsorship deals after posting on social media. These participants indicated that people gravitate towards the "next big thing" (P3), whether it be a new jump posted or a young figure skater gaining fame, resulting in achievements of individuals often being overemphasized on social media. Although competitor content can cause unease, participants 1, 2, 4, and 8 described that it can also fuel motivation to train harder in an effort to match their competitors. Participant 2 called competitor content a "jumpstart" in some instances when motivation is increased.

Twitter, "The Worst". In discussing the implications of social media, participants 5 and 7 both referred to Twitter as the most detrimental platform. Participant 5 said there is so much "cancer" on Twitter and that content on Twitter is especially triggering for them. Participant 7 said Twitter is "the worst". This participant (7) explained that Twitters allows the capability to search their name and see all the Tweets that mention them. The participant (7) called this "self-sabotage" because they would view negative content about themselves, latch onto it, and allow it to upset them. As a result, participant 7 no longer uses Twitter. No other platform was mentioned from such a negative viewpoint.

Theme 4: The Accessibility of Social Media Creates Fuel for Fire. Social media is accessible with a few taps on a device that is often kept within our reach. According to the participants, the ease of accessing recent news, viewing athlete content, expressing opinions online, etc. creates an enhanced chance of social media evoking reactions; social media creates "fuel for fire".

Increased Vulnerability. As indicated by the participants, social media inevitability leads to increased vulnerability of athletes. As mentioned above, there is extraordinary ease in accessing social media and all that comes with it. This includes critical articles (e.g., bashing athletes because of competition results) (P5), "brutal" comments about athlete bodies (P7), posts directly targeting athletes (P3), and even "death threats" (P2). Fans and spectators even tag athletes in negative posts which automatically alert the athlete of the content posted. Participant 8 explained:

> "People will post predictions (of competition results), or they'll do like data analysis of like every short program you've done for the year, and how it compares to other people and like across competitions, and it's never really reliable because it depends on what you do on the day (of competition), but it could set you up to have either really high expectations or really low expectations"

The participants indicated that harsh comments can fuel negative reactions (P2 and P7), self-doubt (P7 and P8), and even inspire a pressure to "prove" the commentators wrong (P3 and P7). All this stems from the ease at which information, news, and opinions are expressed and disseminated through social media platforms. This makes these elite athletes especially vulnerable because of the increased attention and popularity that comes along with rising in the ranks of figure skating.

The Amplification Effect. Social media is an "amplifier" (P4). In other terms, the ease of content creation, consumption, and circulation allows news or updates to be magnified to the fullest by the bustling world of social media. Participant 3 explained this amplification effect relevant to how they were skating at a particular time:

"It was an amplifier, right? I think that's a great way to put it, that it amplified how we were doing. So, if we were skating well, and we saw that (via comments on social media), and people liked it, and it (the social media comments) like helped you keep going. It was really easy to ignore the negative comments when you were skating well, and doing well at competition, right? It's a lot harder to ignore the negative comments that pop up, because, like more of them pop up when you skate bad, and it's easier to just ignore the two people who are your fans and are like "you did great", right? So I think that social media acts as an amplifier of how, how you're skating is going and can kind of, I don't know it's hard sometimes, right?"

As detailed by participants, social media can exasperate difficulties being faced (P4), overemphasize the achievements of competitors (P3), blow up unexpected news related to the sport (P4), exaggerate opportunities of others (P5), and fill with negative comments following a difficult/bad skate (P4). Participants explained this can be demotivating (P5), lead to "questioning your own reality" (P3), cause a heightened feeling of self-doubt (P1), and create a negative headspace (P1). When every event within your sport is amplified to the fullest on social media, negative psychological repercussions appear inevitable.

Seeking Out Content About Oneself. The participants understood that content posted on social media about them is often from a negative standpoint. Even with that, four of the eight participants (2, 3, 4, and 7) mentioned that they seek out content about themselves. "I think as performers…we want to know what they (the fans) think" (P3). The participants (2, 3, 4, and 7) all admitted to viewing content that they are tagged in (their username is mentioned). Participants 2, 4, and 7 indicated that they sometimes search their name within specific platforms to view an even larger amount of content about themselves. As a result of seeking out content

about oneself, these athletes were even more susceptible to the psychological ramifications of comments on social media including self-doubt, increased anxiety, negative body image, and much more.

Body Image – Standards and Comments. According to the participants, social media also acts as fuel for fire in the realm of athlete body image standards and concerns. As noted by participant 2, elite athletes often have a body standard and social media is a reminder of that "literally every time I open the app (social media application)." Participants 2, 7, and 8 all referenced that figure skating is an aesthetic sport and therefore there is an increased pressure on the athletes to maintain a certain body type and size. Participant 7 further detailed that as females go through puberty (which often encompasses weight gain), fans and spectators often take to social media to comment about the female's changing body, specifically in the incidence of weight gain. It was noted that this can affect "how you carry yourself on the ice" and "your confidence" (P7). Participants 2 and 8 both mentioned that social media allows for effortless comparison of your own body to other individuals involved in the sport. Participant 2 detailed that this can be especially detrimental because of the ability for individuals to share images of their bodies edited to look a certain way(related to subtheme *Content is Often an Altered Representation of Self)*. Participant 8 said this body comparison to others can either be detrimental or motivating depending on the headspace in which they are in. Social media provides a space for body comparison in the sport of figure skating which already often revolves around how the competitors aesthetically look while performing.

Theme 5: Learning, Maturing, and Changing Social Media Use. The participants were very transparent in describing the ways in which social media has negatively impacted their headspaces surrounding figure skating. Nevertheless, every participant within this study has

altered their social media use in one way or another to guard from the feasible negative

consequences. Participants 6 and 7 expressed that social media had more influence on their

mindset when they were younger. Participants 1 and 3 reported that they have learned from their

experiences with social media and modified their use accordingly. Participant 4 indicated "social

media does not have much relation to my skating anymore". The participants have learned from

their experiences and adapted their social media use accordingly.

> ***Altering Use of Social Media.*** Participants reported altering their social media to be more

suitable to their needs and to protect their psyche. Multiple participants (P2, P4, P6, and P7)

partook in curating their content, whether it be by deleting individuals from their feed who post

negative content (P2), muting people that "annoy" them (P5), deleting Twitter (P7), "filtering"

content (P1), or creating two accounts: one for personal use and one for uses related to figure

skating (P6). As detailed, there are plenty of ways in which participants alter social media use in

an attempt to benefit from social media use rather than become a victim to the negative

psychological consequences of social media use.

> ***Changes During Competition to Guard Mentality.*** When asked if participants change

the way in which they use social media leading up to competition, seven of the eight participants

detailed specific strategies they used to guard their mentality. Participants either tried to avoid

social media (P1, P2, P3, and P8), reduced social media use (P2 and P5), curated/filtered content

(P4), only allowed themselves a specific amount of time on social media (P3), or only used

social media to post (avoidance of browsing) (P2) either leading up to and/or during competitive

events. Participant 2 explained that sometimes their use of social media after an event is

reflective of how they perform; if they perform poorly, they avoid the internet because of

increased susceptibility to negative comments. All but one of the participants altered their social

media use because they acknowledge the dangers of social media consumption leading up to and during competitive events.

Discussions with Sport Psychologists. As athletes reach the highest levels of sport, they often begin to work with a sport psychologist to develop psychological skills and performance enhancement strategies. Participants 3, 4, and 7 all mentioned that they have worked in conjunction with a sport psychologist to safeguard themselves from the negative ramifications of social media use.

Actively Separating Social Media and Reality. Every participant included in this study referenced that social media is not reality. As participant 3 stated, "There is no correlation (between) being a good skater and social media." Participants (1, 2, 3, 4, 5, and 8) made efforts to separate their own skating from what they view online. Many participants do this by reminding themselves that social media is a "highlight reel" (P1 and P8), placing a divide between social media and competing (P2), rationalizing that individuals posting on the internet do not truly understand figure skating (P2), reminding themselves of their own capabilities (P1 and P6), or reminding themselves of what truly matters: the opinion of their judges and coaches (P7). In using such strategies, participants attempt to separate social media from reality in an effort to avoid negative psychological repercussions.

Theme 6: Positive Uses and Unique Opportunities Come with Social Media.
Although the focus for many participants was the negative psychological outcomes of social media, many positive uses and unique opportunities fostered by social media use were also mentioned. Social media allows figure skaters to share the joy of figure skating (P1), is a "free platform" to express yourself in whatever way you choose (P5), can attract a broader audience to figure skating (P7), allows for rapid dissemination of information (P8), can boost confidence (P1

and P7), and can provide validation (P4) when people positively comment about athlete progress and performance.

Allowance for Connection and Recognition. Multiple participants detailed that social media allows connection with fans and individuals in the skating community (P6 and P8) and can be used effectively as a tool to gain recognition, establish a fan base, and promote themselves (P1, P4, and P8). Participant 3 shared:

"I know that social media is such a key component of connection and a way of, kind of a little bit of self-promotion, a little bit about, you know, keeping the fans and keeping people engaged and excited about your skating and staying relevant, per se."

Additionally, social media can allow for athletes to share more broadly (P5) and "stay relevant" (P3) in terms of the figure skating world. These positive uses of social media however may naturally go hand-in-hand with the increased vulnerability to the negative side effects that athletes face due to social media use.

Source of Inspiration and Motivation. Participants (1, 2, 3, 5, 6, and 8) claimed that social media can be both a tool for finding/providing inspiration and enhancing motivation. Participant 2 used social media to post figure skating content in an effort to inspire fans and younger generations of figure skaters. Viewing videos of other skaters' successes was reported to be both inspirational and motivational (P1, P5, and P6). However, it is important to note, that participant 8 mentioned that her psychological response to the online content of other figure skaters was often contingent to how she is skating; if she was feeling good and training well, social media was motivating whereas, when things are difficult on the ice, self-doubt can be increased by viewing competitor content. Conflicting with this, participant 3 said they could feel inspired and social media can "lift them up in times of stress or worry".

Theme 7: Social Media is Jointly Beneficial and Destructive. Throughout the course of interviews, the beneficial and detrimental uses and influences of social media were communicated in a variety of ways. Participant 2 expressed, "You can make a strong case for it (social media) being positive and negative." Many participants (P3, P4, P6, P7, and P8) conveyed similar views about the impacts of the plethora of internet platforms. While social media can be "overwhelming" (P3), "distracting" (P1, P4, P5), and "addictive" (P3 and P7), it can also be inspiring and motivational (P1, P2, P3, P5, P6, and P8). Social media can provide athletes with "verification" of their abilities as a figure skater (P3) or increase their self-doubt (P7 and P8). Additionally, although social media is a "key component of connection" (P3) it also enhances athlete vulnerability to negative comments that specifically target the athlete.

Participants 2 and 4 explained that the effects of social media depend on how individuals "choose" to use it. In an example, participant 3 described that they either feed off the energy on social media to get them excited for an upcoming event or allow it to make them anxious. Participants 6 and 8 noted that the effects of social media are often directly dependent on the situation (e.g., feeling confident during a competitive event) or person (e.g., an individual highly dependent on praise from others for feelings of self-worth). With all the great uses attributed to social media by participants, there seemed to be negative consequences that often occur in conjunction with its use. So how can athletes manage social media to obtain the positive impacts while also avoiding the negative repercussions? Maybe the answer lies within the context of this study as well as future research.

A Good and Bad Distraction. All participants indicated that social media can cause a distraction from training or competing. However, a discrepancy existed between participants in whether this is a good or bad distraction and some participants (P1, P2, and P4) acknowledge

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that social media can be both. Participants 4, 6, 7, and 8 explained that content unrelated to skating can be helpful in creating a distraction from overthinking (about their program, results, or nerves) prior to competing. However, participant 3 detailed that social media can take their attention away from priorities related to figure skating (e.g., stretching and warming up). As participant 2 stated, whether social media is a positive or negative distraction "depends on how you are using it".

Theme 8: A Lack of Social Media Training. One question within the interview was aimed at assessing whether the participants have been trained on how they use social media. Some participants (P2, P3, P4, and P8) have received social media training. However, participants explained that this training (cited to be offered by U.S. Figure Skating) maintains a focus on educating athletes about appropriate content production (P2, P4, and P8) and guiding athletes in their efforts to craft an "image" for themselves and grow their fanbase online (P2 and P4). One participant (P2) explained that the training occurs in terms of "say this, not that" (P2). Participant 4 went on to say that they have never received social media training on how to "protect and empower yourself".

Theme 9: Recommendations for Social Media Use by Elite Athletes. One of the final questions included within the interview asked the elite figure skaters what they recommend to other skaters in terms of using and managing social media. This question was included to more thoroughly investigate what the participants have learned via their experiences and how they counteract the negatives and take advantage of the positives of social media. The participants had excellent advice. Some of the recommendations included: "only share what you are comfortable with" (P2); channel self-satisfaction rather than falling "victim to the comparison game" (P3); use social media primarily to connect with people (P8); be conscious of what you post and the

impact it can have (P5); and be yourself because "there is no one like you" (P3). Participant 7 noted that using social media in a way that is maximally beneficial takes "trial and error" and you must find what works for you.

Be Active and Aware with Use. Numerous participants (P1, P3, and P6) noted the importance of being active and aware when using social media. Participants advised athletes to be aware of the "message you want to give" (P3) and how you want to represent yourself (P6) via content production. Participant 5 further detailed the importance of being conscious of how athletes portray themselves on social media and the resulting impacts:

"I think, it's like, create the space that you want, you know, because I think what you post (on social media) affects other people in like more ways than you think. So I think like if you're vulnerable, you create a space where like more and more, more people feel comfortable being vulnerable, but if you're like rude or like really mean, then you create a space where like other people feel like that's okay. And, and the more you like rise in the ranks of skating, like I think the more influence you have or the more importance that people attach to you. So it becomes like even more important. And, uh, and social media is like such a permanent thing. Like you can post something like in like two seconds but it kinda stays there forever. So, you just have to really be conscious of that."

Further, participants 3 and 6 recommended being active and aware in catering social media use to specific likes and dislikes by filtering content (e.g., deleting negative individuals) to use social media actively. This is further discussed below.

Filter Content. The final subtheme identified is that of filtering social media content. Half of the participants (P1, P2, P4, and P7) recommended that social media content should be filtered by athletes to pertain to their purposes of use. In other words, athletes or other social

media users should block triggering or unwanted content (P2, P4, and P7) and actively choose

who you want to follow (P1) and what content aligns with your interests (P4). Similar to the

above subtheme, the recommendation is to be intentional with social media use.

CHAPTER V

DISCUSSION

The present study examined elite U.S. figure skater's social media use and the resulting impact of social media on their mentality surrounding figure skating. It had a threefold purpose: (1) to develop an understanding of how elite U.S. figure skaters use social media (e.g., what platforms are used, how often they access specific platforms, how much content is related to figure skating, how often they post, etc.) and to determine if use ratings differ by gender, discipline, and competition tier; (2) to investigate the purposes of social media use by elite U.S figure skaters (e.g., for social support, to promote self, to occupy time, etc.); and (3) to investigate the psychological implications perceived by elite U.S. figure skaters that result from social media use and to determine if ramification ratings differ by figure skater gender, discipline, and competition tier. The findings will now be summarized and discussed, organized by each of these purposes.

Purpose 1 Findings

Relative to the first purpose, a plethora of data about elite U.S. figure skater's social media use was analyzed. Descriptive statistics revealed that Instagram is the most favored platform; all participants used Instagram and it was determined to be the favorite platform to use in general and for purposes related to figure skating within the sample. Snapchat was the second most used platform followed by Facebook and then Twitter. This is interesting being that previous research has mostly considered athlete Twitter and Facebook use (e.g., David et al., 2018; Naegeli, 2020) but not Instagram or Snapchat use. Additional descriptive statistics indicated that about half of the participants use social media for one to two hours per day and approximately three-quarters of participants indicated they post zero to five times per week. The

results also revealed that the content viewed on Twitter and Instagram was considerably more related to figure skating than the content viewed on the other platforms examined. This was unsurprising to the author being that, in her experience, Twitter and Instagram were most often the main platforms of information exchange (e.g., competition results, athlete updates) related to figure skating.

In analyzing changes made to social media use approaching and/or during a competitive event, almost 70% of the participants reported that they alter their social media use in at least one way. The changes made most often include limiting the amount of time spent on social media, only using some social media platforms, and only using social media to stay in touch with others. Additionally, multiple participants engaged in multiple changes of these changes in social media use.

Purpose 2 Findings

In general, elite U.S. figure skaters use social media the most to maintain existing relationships, to pass time, or as entertainment (both in general and relative to figure skating). Similar to the first predominant purpose of social media use identified in this study, student-athletes in a study by Browning and Sanderson (2012) indicated a main purpose of their Twitter use was to keep in contact with others. Additionally, the results of this study indicated that elite U.S. figure skaters use social media the least for making, expressing, or presenting a more popular view of oneself and as a task management tool (both in general and relative to figure skating). Although social media was indicated to be used the least for these purposes relative to the other subfactors, the subfactor means were not remarkably different indicating the participants use social media for all purposes included within the SMUAS (both in general and relative to figure skating). Interestingly, participants indicated that they use social media relative

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to figure skating the most for obtaining and promoting sponsors, which was the added subfactor within the modified SMUAS.

Purpose 3 Findings

Phase 1 Survey Outcomes

The final topic of discussion corresponding to the Phase 1 survey are the psychological ramifications perceived by athletes as a result of social media use. Overall, participants indicated that social media does play a role in their psyche surrounding figure skating whether it be during training or competition. Participants indicated that social media can influence their mood, stress levels, motivation, mentality surrounding training and competing, anxiety levels, confidence, and body image. This corresponds to research by authors, Akram and Kumar, who claim that social media can lead to loss of motivation in school and distorted body image (2017). Similarly, social media was identified as a source of negative social comparison by Chou and Edge (2012). Ironically, participants indicated that social media can influence multiple of these psychological states (e.g., mood and training mentality) in both a positive and negative way. It is interesting to compare each participant's positive item and negative item mean scores (see Table 9). Some participants mean scores for both categories are over three indicating that they perceive social media to both positively and negatively influence their mentality surrounding figure skating (e.g., participants 10, 20, and 26). However, overall, the negative psychological ramifications indicated by the athletes outweighed the positive psychological ramifications. For instance, participants indicated that social media is more likely to heighten their stress and anxiety levels and reduce their self-confidence. Additionally, participants indicated that social media can make them feel self-conscious about their body as well as be a challenge to mentally manage during both training and competing.

Phase 2 Interview Outcomes

The participants revealed that social media has both positive and negative psychological ramifications in relation to their figure skating. However, the participants more consistently discussed the negative repercussions of social media use while only briefly highlighting the benefits that social media allows. This is an important finding as it highlights the need to prepare elite figure skaters for the potential negative effects of social media use when competing at a high level. Future researchers might also explore if figure skaters with specific psychological characteristics are more susceptible to negative ramifications of social media. For example, if a skater is highly anxious or has a poor body image, will he or she react more negatively to posts of other skaters performing well?

Most of the participants explained that they perceive an expectation to create and maintain a presence on social media. Participants indicated that this expectation often produces anxiety surrounding content production. This pressure of building and maintaining an athlete brand via social media production has been similarly identified in Summer Olympic sport athletes (Hayes, 2019) who indicated these pressures are a distracting element of social media use.

Participants also disclosed that social media fuels a comparison game; the athletes often partake in social and self-comparison to individuals posting on social media (especially competitors). This comparison game was identified to be a cause of self-doubt, anxiety surrounding skating skills, and fear of missing out on opportunities. These findings parallel that of Hayes (2019) who found that Summer Olympic sport athletes experienced anxiety as a result of viewing competitor content leading up to competitions. The participants also acknowledged that social media is a "highlight reel", being that individuals only post the best parts of their

lives. In an attempt to control the negatives that can result from social comparison via social media, the participants reported reminding themselves of this reality.

Additionally, content on social media can trigger emotional reactions in elite U.S. figure skaters. Many participants indicated that content that is an inaccurate representation of reality, negative content specifically aimed at themselves, and competitor content can trigger a multitude of emotional reactions (e.g., anxiety, anger, or self-doubt). This finding is consistent with previous literature (e.g., David et al., 2018; Hayes, 2019; Browning & Sanderson, 2012). For example, David et al. identified that student-athletes experience frustration with having a lack of control over what others post and have difficulty forgetting criticisms shared on social media.

With effortless access to social media, participants identified that social media creates fuel for exacerbated psychological effects. For example, participants revealed that social media is an "amplifier" being that content often exaggerates achievements while also overemphasizing difficulties or failures at competitive events faced by athletes. Overall, social media results in increased athlete vulnerability to self-doubt, anxiety, obstructive body image perceptions, and negative self-evaluation. Similarly, Naegeli (2020) identified that negative fan engagement can decrease self-confidence in male NCAA Division I athletes.

Through experience of the positives and negatives of social media use, participants have developed ways to manage their social media use to enhance positive and diminish negative psychological effects. Participants reported filtering the content they view, changing their social media use approaching competitions, partaking in discussions with sport psychologists, and actively making an effort to separate social media and reality. Likewise, student-athletes in a study by Browning & Sanderson (2012) indicated they filter social media content by deleting

individuals from their feed when they are causing disruptions in their psyche by posting negative content.

Although participants more heavily focused on the negatives of social media during the interviews, unique opportunities that social media allows were also identified. Similar participants in a study by David et al. (2018), figure skaters interviewed in this study reported that social media allowed for self-promotion and promotion of their sport. Additionally, participants indicated that social media is an excellent source of communication with family, friends, and fans, stress relief (via distraction), and of motivation and inspiration. This finding is consistent with the positive effects of social media identified by Brougham (2021).

Overall, participants were attuned to the actuality that social media can be both beneficial and destructive. It was reported to be distracting, addictive, overwhelming, motivational, and inspiring. It allowed for connection with others while also increasing athlete vulnerability to targeted negative comments. Previous literature parallels the finding within this study that athletes perceive social media to be both a positive and negative tool (e.g., Browning & Sanderson, 2012; David et al., 2018; Brougham, 2021).

Some participants previously received social media training. However, the training they received was focused on educating athletes about appropriate content production and guiding athletes in creating a social media presence. This training did not educate the athletes on how to guard themselves from negative psychological consequences that can result from social media use. Because these athletes have learned from their experiences managing social media as an elite athlete, they were asked what recommendations they have for other athletes navigating the world of social media. The participants recommended that individuals be active and aware of

their social media use by paying attention to how they want to represent themselves and filtering content to their needs.

In summary, the results from the interviews indicated that elite U.S. figure skaters are conscious of both the positive and negative ramifications of social media. These athletes have learned from their experiences and in turn, often cater their social media use to their needs. However, the participants indicated falling victim to negative repercussions that can result from social media use as an elite athlete.

Strengths and Limitations

A strength of this research is the novelty. Prior to the completion of this study, figure skater's social media use, purposes for use, and subsequent perceived psychological ramifications had not been investigated. Other populations such as college student-athletes (Browning & Sanderson, 2012), Division I male athletes (Naegeli, 2020), and Australian Summer Olympic sport athletes (Hayes, 2019) have been examined. However, this study presents novel findings concerning elite U.S. figure skaters and social media use.

Additionally, this study includes both a quantitative and qualitative component. This allowed the researcher to more thoroughly examine social media use by elite U.S. figure skaters and more specifically the subsequent perceived psychological implications. The Phase 1 qualitative survey allowed a preliminary investigation of the scale and scope of social media use, purposes of use, and subsequent psychological ramifications. The Phase 2 qualitative interview allowed a more extensive examination of the psychological implications that figure skaters attribute to social media use. Each component complemented the other and resulted in a thorough study.

Another strength was the researcher's ability to recruit high profile athletes as a result of her experience as an elite U.S. figure skater. The study was aimed to investigate 'elite' U.S. figure skaters because increased recognition in sport leads to a substantial likelihood of experiencing the positive and negative effects of social media use (e.g., negative comments from followers, brutal article headlines, sponsorship deals). As a result, these elite athletes are hypothesized to experience more subsequent psychological implications than less well-known athletes. Many of the athletes that were surveyed and interviewed are familiar with the researcher either as a prior elite figure skater or friend. This most likely resulted in the participants being more comfortable and willing to partake in the study.

The first weakness of this study is the small sample size in both Phase 1 and Phase 2. Of the 81 participants contacted in Phase 1, only 37 returned the completed survey. In Phase 2, only eight participants were interviewed. A larger sample size in both phases would allow for results to be more applicable to the elite figure skating population as a whole.

Also, the author inadvertently left one item ("to find information about celebrities and keep track of them") of the SMUAS off the survey. As a result, the scale used comprises 29 items rather than 30 items and the subfactor, making, expressing, or presenting a more popular oneself (MEPO) included one less item. This may have influenced the results when generating a mean for the subfactor MEPO.

Additionally, a questionnaire or scale aimed at assessing the psychological ramifications of social media use has not been previously established in research. As a result, the researcher generated a scale using the results of previous research. Therefore, this scale (see Appendix D) has not been tested for validity and reliability.

Future Research Directions

Being that this is the first study of this kind, there are a plethora of directions that future research may take in order to more thoroughly understand athlete social media use and the psychological ramifications of such use.

An area of importance that future research may look into is how an individual's gender identity, sexual orientation, race, and/or ethnicity effects their social media use and perceived psychological implications of use. This may be important research not only in the realm of figure skaters but also other athletes as well as the general population. An individual's demographics most likely are inevitably intertwined with their social media use. A study of this scope may have important implications for individuals of a variety identities and backgrounds. For example, in recent years, Asian Americans have been a target of hate speech and crimes. As a result, the use and consumption of social media by Asian Americans may greatly vary from those of other ethnicities.

Relative to figure skaters, future research should consider a larger population including athletes who represent countries outside of the United States. It would also be helpful to include pre-elite or newly elite skaters to see if these less experienced athletes have greater difficulties recognizing how social media affects their training and competition performances. Within this study, athletes indicated that as they grew older and became more well-known in sport, they learned how to manage their social media to both enhance the positive aspects and guard from the negative repercussions. Therefore, examining pre-elite or newly elite skaters who may not have this type of experience may be important in determining the negative psychological ramifications of social media use when figure skaters are newly entering stardom in the figure skating world and how they can safeguard themselves as this process ensues. Additionally, future

research aimed at examining social media use and the psychological ramifications of use in a larger population figure skaters ranging in age, level of competition, and country of residency would allow for a larger sample size of more diverse participants and therefore result in more robust findings. In addition, the differences in social media use between individuals of different population subgroups should be examined. For example, how does social media use, consumption, and psychological implications differ between pairs and singles skaters? Are there differences in social media use and the resulting psychological ramifications between athletes of different countries? This may lead to interesting findings surrounding the differences in social media use or management depending on subgroup or cultural norms.

Additionally, future studies should consider focusing on creating and validating a questionnaire aimed at assessing the perceived psychological ramifications of social media use. As social media continues to gain popularity and develop into new forms, this may be especially important for numerous future studies. Perhaps this questionnaire could take multiple forms relevant to different populations of interest (e.g., the general population, elite athletes, youth athletes). With the rapid growth of social media platforms and continued increase in the number of social media users, this type of questionnaire could be very important in aiding in future research. The questionnaire created by the author used for this study may be useful in informing future studies aimed at establishing a questionnaire that assesses the psychological ramifications of social media use.

Social media use and the ramifications of use have seldomly been studied. Therefore, a next step in research may be aimed at formulating a variety of models representing how social media is used, content consumption, and the implications of social media use. Models of this sort may take many routes. For example, one model may be specifically designed for elite athletes

using social media while another may model teenager navigation of social media. Models of this sort may have important uses in the realm of education for athletes, teenagers, teachers, coaches, and others.

The participants indicated that they often feel pressure to maintain a presence on social media. However, they also partook in many strategies to avoid the negative psychological repercussions that can result from social media use. Future research can more thoroughly investigate this contrast in social media use and how these two aspects of navigating social media interplay in influencing the perceived psychological ramifications. Researchers may need to investigate the strategies that athletes can use to generate and maintain a social media presence while also preserving an optimal headspace during both sport training and competitive events. This may include an examination of what strategies different types of athletes use to protect themselves from social media ramifications and how successful these strategies are when practiced. In contrast, researchers may delve into designing a social media use strategy for athletes to implement into their lives and longitudinally investigate psychological outcomes.

Another track of research surrounding athlete social media use may be aimed at examining whether particular figure skaters are more susceptible to the negative ramifications of social media use. For example, researchers may examine the relationship between social media perceived psychological ramifications and Big Five personality traits in U.S. figure skaters. A completely different line of research may examine if figure skaters with body dysmorphia or an eating disorder are more susceptible to social comparison via social media. There are boundless possibilities of research within this area. With this type of research, identification of athletes with a greater susceptibility to the negative ramifications of social media may be attainable. The identified vulnerable individuals may be educated about social media use earlier in their athletic

career. As a result, these types of athletes may be encouraged to enact psychological skills or strategies to safeguard themselves and as a result maintain psychological wellbeing and achieve greater success.

Lastly, the author believes that future research should be conducted with the aim of creating a psychological skills training program for helping athletes effectively navigate social media. This program may be designed in an effort to inform athletes about both the positive uses of social media as well as the possible negative repercussions that can result from use. It could educate figure skaters on ways in which to benefit from using social media as a tool for self-promotion and connection while also providing mechanisms to cope with and guard against the brutality of the social media world.

Practical Implications

There is ample evidence within this research to conclude that social media can be an excellent tool for elite U.S. figure skaters. Nevertheless, social media inevitably can lead to a multitude of psychological ramifications that can impact the mentality of these athletes during training, competition, and everyday life. Therefore, the findings from this study enforce the necessity for U.S. figure skaters to be active and mindful in managing their social media use. Elite U.S. figure skaters should be taught to actively determine how they want to represent themselves on social media and in what ways they want to attempt to benefit from using social media, whether as a tool for self-promotion, connection, etc. Additionally, athletes should partake in identifying the possible psychological backlash they may encounter via social media use and partake in efforts to guard themselves from this. For example, athletes may filter content or avoid social media use leading up to and during competitions. This research demonstrates that

athletes can maintain a positive headspace surrounding their sport by determining objective actions to take on social media to safeguard themselves from the possible negative effects.

This research also supports the need for elite U.S. figure skater education about social media management and strategies to balance the positive and negative ramification of social media. This education should aim at providing the necessary psychological skills training to allow figure skaters to deal with all the negative repercussions of social media (e.g., the comparison game, negative targeting comments, self-doubt, competitive anxiety). This education could be provided in addition to the current education by U. S. Figure Skating about building an athletic brand. In this researcher's opinion, both types of education are equally important. This type combination of education may be optimally provided by a sport psychologist hired by U.S. Figure Skating. A U.S. Figure Skating sport psychologist may be able to design a workshop aimed at educating athletes about building an athletic brand while safeguarding themselves from the negative psychological ramifications of social media use. The implementation of this workshop at U.S. Figure Skating developmental and training camps would allow U.S. figure skaters to learn how to engage in productive and safe social media throughout their career as a figure skater. This may have important implications on their psychological wellness and level of success both as a figure skater and in general.

Lastly, this research has implications for coaches, sport psychologists, and U.S. Figure Skating administrators working with elite figure skaters. Coaches play an important role in guiding athletes as they advance in sport. With knowledge of the negative psychological effects that can be caused by social media use and the ways in which athletes can guard themselves, coaches may be able to educate and empower their athletes about such matters and in turn help the athletes safeguard themselves from the negative psychological ramifications. Sport

psychology specialists may be especially suited for this role as several figure skaters in this study identified they have worked with sport psychologists to navigate using social media as an elite athlete. Sport psychologists, whether working individually with athletes or conducting group workshops, may have an important role in assisting athletes as they navigate social media use while achieving a large fanbase and figure skating fame. Lastly, U.S. Figure Skating administrators maintain a role in athlete development and wellness. Administrator knowledge of the side effects of social media use must first be accomplished. Following, the administrators can play a pivotal role in U.S. figure skater's education surrounding the management of social media use. Administrators may be creative in doing so by either posting on social media about social media management strategies, designing an online workshop, hiring sport psychologists to design and implement workshops at camps, etc.

Conclusion

Overall, the results of this study provide evidence that social media use by elite U.S. figure skaters can be both beneficial and detrimental to their psyche surrounding figure skating. Social media can be an excellent tool to increase popularity within the figure skating world, connect with fans, boost motivation, stay in contact with family and friends, and share/view posts that are motivational and inspiring. However, this amazing tool can also create psychological distress in athletes. Social media allows for a "comparison game" to ensue which can often lead to self-doubt, negative body image, or anxiety. Social media can trigger emotional reactions whether it be cruel comments aimed at athletes, anger about an individual's misrepresentation of themselves or a situation, or weariness when competitors post accomplishments. Social media is a threat to figure skaters' psyche. However, this threat is masked by the utility and entertainment social media provides.

Through efforts to actively monitor social media use, some of these negative psychological ramifications can be diminished. Athletes should attempt to safeguard themselves from social media ramifications by filtering content, working with a sport psychologist, and avoiding social media use during vulnerable times (e.g., competitive events). However, social media seems to inevitably produce a plethora of detrimental psychological effects; even though athletes within this study have made efforts to avoid negative ramifications, social media has often still influenced their psyche. Future research within this field of study is necessary. Athletes of different sports, levels of competition, age, and cultures should be considered. Additionally, research aimed at identifying athletes particularly susceptible to the ramifications of social media use may be important in implementing management strategies for such athletes to enhance their psychological wellbeing and sport success. Lastly, educational tools for athletes regarding social media uses and strategies to safeguard themselves from the negative ramifications may be necessary for figure skaters as well as other athletes.

This preliminary study indicates the importance of the study of social media use and the resulting psychological ramifications more thoroughly and in additional populations. Social media will inevitably continue to grow in popularity with constant tech development. Without continued research in this area and implementation of strategies to promote healthy social media use, athletes will continue to face the negative psychological ramifications of social media which can impact both their career as an athlete and possibly their psyche for the rest of their life.

APPENDICES

Informed Consent Forms

Research Participant Information and Consent Form

Study Title: *An Investigation of Elite U.S. Figure Skaters' Social Media Use, Purposes of Use, and Subsequent Perceived Psychology Implications (Phase 1)*
Researcher and Title: Hannah Miller, M.S. Candidate
Department and Institution: Department of Kinesiology, Michigan State University
Contact Information:
        email: mill2650@msu.edu
        phone: 517-648-6393
Sponsor: Dr. Daniel Gould

BRIEF SUMMARY
You are being asked to participate in a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in a research study of elite U.S. figure skaters' social media use, purposes of use, and subsequent perceived psychological implications. You will be asked to complete an online survey which is estimated to take 15 to 30 minutes to complete. You must be 18 years or older and a junior or senior level, national or international U.S. figure skating competitor.

Participation is voluntary, and you may opt out of the study at any time. There are no foreseeable risks in participating in this study.

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to an understanding of how elite U.S. figure skaters use social media and the perceived psychological impacts (both positive and negative) that result from social media use.

Participation in this study involves completing this online survey which asks about your social media use and perceived psychological ramifications of social media use. Following your completion of this survey, your participation is complete, although the researchers may contact you for recruitment for Phase 2 of this study which involves an interview about social media use by figure skaters.

PURPOSE OF RESEARCH
You are being asked to participate in a research study of elite U.S. figure skaters' social media use, purposes of use, and perceived psychological implications. You have been selected as a participant because you have reached a level of figure skating in which you may be subject to both positive and negative feedback via social media use which may affect your mentality.

The purpose of this research study is threefold. The first purpose is to develop an understanding of how elite U.S. figure skaters use social media (e.g., what platforms are used, how often they

access specific platforms, how much content is related to figure skating, how often they post, etc.). The second purpose is to investigate the purposes of social media use by elite U.S figure skaters (e.g., for social support, to promote self, to occupy time, etc.). The final purpose of the study is to investigate the psychological implications perceived by elite U.S. figure skaters to result from social media use. This includes investigation of how participants perceive social media to impact psychological factors such as competitive anxiety, body image, self-esteem, motivation, etc.

It is hypothesized that elite U.S. figure skaters will report using a multitude of social media platforms (e.g., Instagram, Twitter, Facebook, etc.) for a variety of purposes. Additionally, it is expected that the amount of time spent on social media will vary between participants. Both positive and negative ramifications of social media use are expected to be observed.

Knowledge about elite U.S. figure skaters' social media use, purposes of use, and subsequent perceived psychological implications is being sought for multiple reasons. First, the authors aim to develop preliminary data about elite U.S. figure skater social media use and purposes of use. This data may be useful in subsequent research pertaining to social media use in figure skaters. Additionally, knowledge is being sought about the specific psychological constructs perceived to be affected by social media as well as what specific content results in such implications. This information may be important in further research and discussion about social media surveillance in figure skaters as well as other athlete populations.

WHAT YOU WILL BE ASKED TO DO
You will be asked to complete a Qualtrics survey following the completion of this form. It is estimated that the survey will take 15 to 30 minutes to complete. The survey includes four sections: demographic information, social media use, purposes of social media use, and perceived psychological ramifications of social media use.You are free to skip questions that you would prefer not to answer within the survey.

This is a two phase study. Following the completion of this survey, you will have completed Phase 1. Participants for Phase 2 will be recruited from the original participation group. Therefore, you may be contacted and asked to participate in Phase 2 following Phase 1 completion. You can decline to participate in Phase 2, regardless of your participation in Phase 1. Phase 2 is a 20-to-30-minute one-on-one phone interview with the researcher.

POTENTIAL BENEFITS
You will not benefit personally from being in this study. However, we hope that, in the future, other people might benefit from this study because it will contribute to knowledge about athlete (specifically elite U.S. figure skaters) social media use and the perceived psychological ramifications of such use. The results of this research may contribute to and/or influence further study regarding related topics. Additionally, the results may contribute to further contemplation of how athletes should be using social media, whether social media use should be monitored, social media use at events, etc. Lastly, this research may result in increased athlete/coach/organization awareness of the positive and negative impacts of social media use and the possible need for greater surveillance.

POTENTIAL RISKS
There are no foreseeable risks in participating in this study. You may opt out of the study at any point by simply discontinuing to answer survey questions and exiting.

PRIVACY AND CONFIDENTIALITY

The information you provide within the survey will be kept confidential. The researcher (Hannah Miller), sponsor (Dr. Daniel Gould), and the Institutional Review Board (IRB) are the only entities that will have access to this data.

All information taken from the study will be coded to protect each subject's name. No names or other personal identifiable information will be used when discussing, reporting, or presenting the data. The information gathered from this study may be stripped of identifiers and used in future research without anyone knowing it is information from the participant. The data will be stored in a password protected computer. The de-identified data and consent forms will be kept for three years.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

You have the right to say no to participating in the research. You can stop at any time after the survey has already started. There will be no consequences if you stop, and you will not be criticized. You will not lose any benefits that you normally receive.

COSTS AND COMPENSATION FOR BEING IN THE STUDY

You will not receive money or any other form of compensation for participating in this study.

RESEARCH RESULTS

You will not automatically receive the results of this study. If you would like to receive a copy of the completed thesis (including results and discussion of findings from both phases), please email the researcher with this request.

FUTURE RESEARCH

Information that identifies you might be removed from the survey data. After such removal, the survey data could be used for future research studies or distributed to another investigator for future research studies without additional informed consent from you.

CONTACT INFORMATION

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher.

Hannah Miller
mill2650@msu.edu
(517) 648-6393

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

DOCUMENTATION OF INFORMED CONSENT.

Your signature below means that you voluntarily agree to participate in this research study.

_____   _____
Signature   Date

You will be given a copy of this form to keep.

Research Participant Information and Consent Form

Study Title: *An Investigation of Elite U.S. Figure Skaters' Social Media Use, Purposes of Use, and Subsequent Perceived Psychology Implications (phase 2)*
Researcher and Title: Hannah Miller, M.S. Candidate
Department and Institution: Department of Kinesiology, Michigan State University
Contact Information:
      email: mill2650@msu.edu
      phone: 517-648-6393
Sponsor: Dr. Daniel Gould

BRIEF SUMMARY
You are being asked to participate in Phase 2 of a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in phase 2 of a research study aimed at investigating elite U.S. figure skaters' social media use, purposes of use, and subsequent perceived psychological implications. You will be asked to complete a semi-structured interview which is estimated to take 20 to 30 minutes to complete. You must be 18 years or older and a senior level, national or international U.S. figure skating competitor.

Participation is voluntary, and you may opt out of the study at any time. There are no foreseeable risks in participating in this study.

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to an understanding of how elite U.S. figure skaters use social media and the perceived psychological impacts (both positive and negative) that result from social media use.

Participation in this study involves completing a semi-structured interview in which you will be asked about your social media use and perceived psychological ramifications of social media use. Following your completion of the semi-structured interview, your participation is complete.

PURPOSE OF RESEARCH
You are being asked to participate in Phase 2 of a research study investigating elite U.S. figure skaters' social media use, purposes of use, and perceived psychological implications. You have been selected as a possible participant because you have reached a level of figure skating in which you may be subject to both positive and negative feedback via social media use which may affect your mentality.

The purpose of this research study is threefold. The first purpose is to develop an understanding of how elite U.S. figure skaters use social media (e.g., what platforms are used, how often they access specific platforms, how much content is related to figure skating, how often they post, etc.). The second purpose is to investigate the purposes of social media use by elite U.S figure skaters (e.g., for social support, to promote self, to occupy time, etc.). The final purpose of the study is to investigate the psychological implications perceived by elite U.S. figure skaters to result from social media use. This includes investigation of how participants perceive social

media to impact psychological factors such as competitive anxiety, body image, self-esteem, motivation, etc.

It is hypothesized that elite U.S. figure skaters will report using a multitude of social media platforms (e.g., Instagram, Twitter, Facebook, etc.) for a variety of purposes. Additionally, it is expected that the amount of time spent on social media will vary between participants. Both positive and negative ramifications of social media use are expected to be observed.

Knowledge about elite U.S. figure skaters' social media use, purposes of use, and subsequent perceived psychological implications is being sought for multiple reasons. First, the authors aim to develop preliminary data about elite U.S. figure skater social media use and purposes of use. This data may be useful in subsequent research pertaining to social media use in figure skaters. Additionally, knowledge is being sought about the specific psychological constructs perceived to be affected by social media as well as what specific content results in such implications. This information may be important in further research and discussion about social media surveillance in figure skaters as well as other athlete populations.

WHAT YOU WILL BE ASKED TO DO
You will be asked to complete a semi-structured interview following the completion of this form. It is estimated that the interview will take 20 to 30 minutes to complete. You will be asked questions regarding your social media use, purposes of social media use, and perceived psychological ramifications of social media use. You are free to skip any questions that you would prefer not to answer. This is a two phase study. Following the completion of the interview, you will have completed Phase 2.

POTENTIAL BENEFITS
You will not benefit personally from being in this study. However, we hope that, in the future, other people might benefit from this study because it will contribute to knowledge about athlete (specifically elite U.S. figure skaters) social media use and the perceived psychological ramifications of such use. The results of this research may contribute to and/or influence further study regarding similar topics. Additionally, the results may contribute to further contemplation of how athletes should be using social media, whether social media use should be monitored, social media use at events, etc. Lastly, this research may result in increased athlete/coach/organization awareness of the positive and negative impacts of social media use and the possible need for greater surveillance.

POTENTIAL RISKS
There are no foreseeable risks in participating in this study. You may opt out of the study at any point by simply discontinuing to answer survey questions and exiting.

PRIVACY AND CONFIDENTIALITY
The information you provide within the survey will be kept confidential. The researcher (Hannah Miller), sponsor (Dr. Daniel Gould), and the Institutional Review Board (IRB) are the only entities that will have access to this data.
All information taken from the study will be coded to protect each subject's name. No names or other personal identifiable information will be used when discussing, reporting, or presenting the data. The information gathered from this study may be stripped of identifiers and used in future research without anyone knowing it is information from the participant. The data will be stored in a password protected computer. The de-identified data and consent forms will be kept for three years.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW
You have the right to say no to participating in the research. You can stop at any time after the interview has already started. There will be no consequences if you stop, and you will not be criticized. You will not lose any benefits that you normally receive.

COSTS AND COMPENSATION FOR BEING IN THE STUDY
You will not receive money or any other form of compensation for participating in this study.

RESEARCH RESULTS
You will not automatically receive the results of this study. If you would like to receive a copy of the completed thesis (including results and discussion of findings from both phases), please email the researcher with this request.

FUTURE RESEARCH
Information that identifies you might be removed from the survey data. After such removal, the survey data could be used for future research studies or distributed to another investigator for future research studies without additional informed consent from you.

CONTACT INFORMATION
If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher.

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(517) 648-6393

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

DOCUMENTATION OF INFORMED CONSENT.

Your signature below means that you voluntarily agree to participate in this research study.

_____   _____
Signature   Date

You will be given a copy of this form to keep.

APPENDIX B

Survey Measure – Demographic Information

Q1: What is your name? (first and last)
Your name will only be used to identify potential participants for Phase 2 of this study and will not be associated with your responses.

Q2: Gender, how do you identify?
- Male
- Female
- Non-binary
- Prefer to self-describe below (text box below)
- Prefer not to answer

Q3: What is your race? (select all that apply)
- White/Caucasian
- Black/African American
- American Indian or Alaskan Native
- Asian
- Native American or Other Pacific Islander
- Hispanic or Latino
- Other, please specify (text box below)

Q4: What is your age? _____ yrs

Q5: Where is your hometown? (city, state)

Q6: Where do you train? (city, state; if you train in multiple places, please state only where you train the most often)

Q7: What level did you compete in during the previous season? (select both if you competed in both levels nationally or internationally)
- Junior
- Senior

Q8: What discipline do you compete in (select multiple if you compete within multiple disciplines at the junior level or higher)?
- Men's singles
- Ladies singles
- Pairs
- Ice dance

Q9: What competition(s) have you competed in during your career? (select all that apply)
- U.S. Figure Skating National Championship
- Junior Grand Prix event

- Junior Grand Prix Final
- Challenger Series event
- Grand Prix event
- Grand Prix Final
- Four Continents Figure Skating Championships
- World Figure Skating Championships
- Olympics

Q10: At what age did you start competing in figure skating?

Q11: Please complete the table below regarding how many years (seasons) you have competed at the junior and/or senior level at national level (e.g. U.S. Championships) and international level (e.g., JGPs, GPs, Worlds, etc.) competitions. (Please indicate 0 if you have not competed within the realm indicated.)

	Nationally	Internationally
Junior		
Senior		

APPENDIX C

Survey Measure – Social Media Use

Q12: Do you have social media account(s)?
- Yes
- No

Q13: At what age did you start using social media? (if you are unsure, please estimate)

Q14: Please select which of the following social media platform(s) you currently have an account through? (select all that apply)
- Twitter
- Facebook
- Instagram
- Snapchat
- TikTok
- LinkedIn
- YouTube
- Other, please specify (text box below)

Q15: Which social media platform is your favorite to use in general? (select one)
- Twitter
- Facebook
- Instagram
- Snapchat
- TikTok
- LinkedIn
- Youtube
- Other, please specify (text box below)

Q16: How often do you access each of the following social media platforms? Please provide an answer for every platform. (If you do not use the platform listed, please select N/A)

	Several times daily	Daily	Several times a week	Weekly	Several times a month	Monthly	N/A
Twitter							
Facebook							
Instagram							

	Several times daily	Daily	Several times a week	Weekly	Several times a month	Monthly	N/A
Snapchat							
TikTok							
LinkedIn							
YouTube							
Other, please specify (select N/A if you do not use any other platform)							

Q17: How much total time do you estimate that you spend on social media (all platforms) per day?

- Less than 30 minutes
- 30 minutes to 1 hour
- 1 to 2 hours
- 2 to 3 hours
- Over 3 hours

Q18: How much time do you estimate that you spend on each of the following social media accounts on a daily basis? (If you do not use the platform listed, please select none.)

	Over 2 hours	1 to 2 hours	30 minutes to 1 hour	Less than 30 minutes	I do not use this platform on a daily basis	N/A
Twitter						
Facebook						
Instagram						
Snapchat						
TikTok						

	Over 2 hours	1 to 2 hours	30 minutes to 1 hour	Less than 30 minutes	I do not use this platform on a daily basis	N/A
LinkedIn						
YouTube						
Other, please specify (select N/A if you do not use any other platform)						

Q19: Which social media platform is your favorite to use for purposes related to figure skating? (select one)
- Twitter
- Facebook
- Instagram
- Snapchat
- TikTok
- LinkedIn
- Youtube
- Other, please specify

Q20: In thinking about the content that you view on each of the following social media platforms, how much is related to figure skating? Please provide an answer for every platform. (If you do not use the platform listed, please select N/A)

	75 - 100% of content	50 - 75% of content	25 - 50% of content	Less than 25% of content	None	N/A
Twitter						
Facebook						
Instagram						
Snapchat						
TikTok						

	75 - 100% of content	50 - 75% of content	25 - 50% of content	Less than 25% of content	None	N/A
LinkedIn						
YouTube						
Other, please specify (select N/A if you do not use any other platform)						

Q21: Do you change how you use social media when preparing for or during a major competitive event (e.g, limit your social media use, use social media more often, only look at certain social media platforms)?
- Yes
- No

Q22: In what ways do you change how you use social media when preparing for or during a major competitive event? (select all that apply, If you do not limit your use of social media, select none)
- Stay completely off social media
- Only use some social media platforms
- Limit time spent on social media
- Stay off social media during the day of competition
- Only post on social media if necessary (e.g., posts regarding sponsorship)
- Only using social media to stay in touch with significant others (e.g., friends and family)
- Post on social media more frequently
- Post more often about my experiences training or at the event
- Other (please specify):
- None

Q23: How often do you estimate that you post on social media weekly? (consider all social media platforms; this includes videos posted, tweets, Snapchat/Instagram stories, Facebook status updates or posts, etc.)
- 0 - 5 times per week
- 5 - 10 times per week
- 10 - 15 times per week
- 15 - 20 times per week
- Over 20 times per week

Q24: How many followers do you have on Twitter?
- Indicate number of followers below (text box below)
- I do not know
- I do not use this social media platform

Q25: How many followers do you have on Instagram?
- Indicate number of followers below (text box below)
- I do not know
- I do not use this social media platform

Q26: How many times do you estimate that you appeared on television or a live streaming network within the past year?
- Indicate amount of times below (text box below)
- I do not know
- I have not been on television or a live streaming network within the last year

Survey Measure – Purposes of Social Media Use

Social Media Usage Aims Scale (SMUAS)

Please indicate (by checking the box) how often you engage in the following socially oriented social media activities. **ONLY** consider your activity on **social media platforms** (e.g., Facebook, Twitter. Snapchat, Instagram) and **DO NOT** include your general internet, computer, or mobile phone activities.

Q27:

I use social media…	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
Maintain Existing Relationships (MER)					
To stay in touch with friends or people I know.					
To find out what acquaintances or friends are doing now.					
To maintain relationships with people I may not get to see very often.					
To keep in touch with relatives.					
Meet New People and Socialize (MNPS)					
To meet new friends.					
To develop a romantic relationship.					
Because my friends do.					
Primarily for socializing.					
Make, Express, or Present a More Popular Self (MEPO)					
As a popularity contest (to have more social media friends).					
To be cool.					
To find information about celebrities and keep track of them.					
To update my own status, profile.					
Pass Time (PT)					

I use social media to…	1 = Strongly disagree	2 + Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
To occupy my time.					
To pass time when bored.					
To distract myself.					
As a Task Management Tool (ATMT)					
To use applications within social media platforms.					
To store and organize photos.					
To create an activity group.					
To store and organize contact information (such as e-mail addresses).					
To store and organize birth dates and appointments.					
Entertainment (EAT)					
To play games.					
To listen to music.					
To read funny text (jokes, riddles, stories, etc.).					
To share videos and images.					
For Information and Education (IAE)					
To find or spread information.					
To stay informed about current events.					
To express my views on a subject.					
To access activities for educational purposes.					
To find materials about course subjects.					
To join an educational or instructional group.					

Modified SMUAS - measurement of purposes of social media use related to figure skating

Please indicate (by checking the box) how often you engage in the following socially oriented social media activities related to your figure skating. **ONLY** consider your activity on **social media platforms** (e.g., Facebook, Twitter. Snapchat, Instagram) and **DO NOT** include your general internet, computer, or mobile phone activities.

Q28:

I use social media…	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
Maintain Existing Relationships (MER)					
To stay in touch with figure skaters I know.					
To find out what other figure skaters are doing.					
To maintain relationships with figure skaters I may not get to see often.					
To keep in touch with relatives for skating support when I cannot see them in person.					
To keep in touch with members of the figure skating community.					
Meet New People and Socialize (MNPS)					
To meet new figure skaters.					
Because my figure skating friends do.					
Primarily for socializing with other figure skaters.					
Make, Express, or Present a More Popular Self (MEPO)					
As a popularity contest (to have more social media friends than other figure skaters).					
To be socially relevant in the figure skating world.					
To find information about figure skaters and keep track of them.					
To post updates (status, photos or videos) about my figure skating.					
To build my figure skating fan base.					
Pass Time (PT)					

I use social media to…	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
To occupy my time during training and competition.					
To pass time when bored during training and competition.					
To distract myself from focusing too much on my skating.					
As a Task Management Tool (ATMT)					
To use applications within social media platforms for purposes related to figure skating.					
To store and organize photos related to figure skating.					
To create a skating related activity group.					
To keep track of my goals and progress in figure skating.					
Entertainment (EAT)					
To read about figure skating (stories, news, etc.)					
To share videos and images of figure skating.					
To view figure skating videos and images.					
For Information and Education (IAE)					
To find or spread information about figure skating.					
To stay informed about current events happening related to figure skating.					
To express my views on subjects related to figure skating.					
To access activities for skating related educational purposes.					
To join a figure skating educational or instructional group.					
Obtaining or Promoting Sponsors (OPS)					
To promote sponsors acquired through figure skating.					

I use social media to…	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
To establish sponsorship for my figure skating.					

Survey Measure – Psychological Ramifications of Social Media Use

Please indicate (by checking the box) how much you agree or disagree with the following statements. **ONLY** consider your activity on **social media platforms** (e.g., Facebook, Twitter. Snapchat, Instagram) and **DO NOT** include your general internet, computer, or mobile phone activities.

Q29:

Social media use can…	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
Positively affect me as a figure skater.					
Negatively affect me as a figure skater.					
Positively affect my training.					
Negatively affect my training.					
Positively affect my skating performances.					
Negatively affect my skating performances.					
Put me in a good mood for skating, training, and competing.					
Put me in a bad mood for skating, training, and competing,					
Make me upset during skating, training, and competition.					
Make me calm during skating, training, and competition.					
Reduce my stress surrounding figure skating.					
Increase my stress surrounding figure skating.					
Increase my motivation for figure skating.					
Decrease my motivation for figure skating.					
Be challenging to deal with mentally when training.					
Be challenging to deal with mentally when competing.					
Produce anxiety about my skating ability.					

Social media use can…	1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree
Reduce anxiety about my skating ability.					
Increase my confidence in my skating skills.					
Decrease my confidence in my skating skills.					
Allow me to relax during figure skating events.					
Make me anxious during figure skating events.					
Make me feel proud of my accomplishments in figure skating.					
Make me upset following a disappointing performance.					
Affect how I feel about my body as a figure skater.					
Make me feel self-conscious about my body as a figure skater.					
Increase my nerves prior to competing.					
Decrease my nerves prior to competing.					
Distract me from my training.					
Distract me when I am at a competition.					

Q31: Can you think of any other ways that social media has impacted your psychological (mental) state as a figure skater? Please explain below.
This can include how social media positively or negatively influences your psychological/mental states both on and off the ice. Think about specific situations in which social media posts have impacted your thought processes.

APPENDIX F

Interview Guide

Directions: Thank you for helping me out by consenting to this interview. I am trying to learn about how skaters use social media and more particularly how social media affects figure skater mentality. Some skaters say social media influences them while others say it does not. I will ask you a variety of questions about your background in skating, how you use social media, and how you think it affects you in your role as a figure skater. There are no right or wrong responses, and you can refuse to respond to any questions that make you feel uncomfortable. You can also withdraw from the study at any time you wish. Feel free to ask me any questions throughout the interview today.

I was a figure skater, as you know, for a very long time. I competed in the U.S. Championships nine years in a row and competed on behalf of Team USA at Junior Grand Prix, Challenger Series, and Grand Prix events. When reflecting on my own career, I remembered how social media could play a role in my mentality surrounding figure skating. These experiences are what fueled my interest in this line of research. Do you have any questions for me before we get started?

1. Do you think social media has an influence on your mindset related to figure skating?
   a. What are the good ways social media influences your mindset?
   b. What are the bad ways social media influences your mindset?

2. Do you think social media affects you in your role as a figure skater? Explain.
   a. In what ways has social media been beneficial for you as a skater?
   b. In what ways has social media been detrimental for you as a skater?

3. Have you ever seen anything on social media related to figure skating that has provoked specific emotions or reactions? (e.g., anger, joy, sadness, anxiety, etc.) Explain.
   a. What type of content caused this emotion/reaction?

4. Can you describe a specific instance in which social media affected your mindset related to figure skating? Explain.
   a. What type of content caused this reaction?
   a. Can you describe the inner thoughts or emotions you experienced?
   a. How did you deal with those thoughts and emotions?

5. How often do you think social media plays a role in your mindset when training or at competitions?
   a. Is this dependent on how you are performing?
   b. Is this dependent on the content you view?

6. Do you think that social media influences how you train? Explain.

7. Do you think that social media influences how you compete? Explain.

8. Do you think social media has any impact on your confidence about your abilities on the ice? Explain.

9. Do you think social media can create anxiety around figure skating? Explain.

10. Do you think social media impacts your motivation relative to figure skating? Explain.
    a. Is this a positive or negative impact?
    b. During training and/or competition?

11. Does social media influence how you feel about your body as a figure skater? Explain.
    a. Does this impact how you feel about the way you look on the ice?
    b. Does this affect you in terms of training or competing?

12. Do you change the way you use social media when you are approaching large competitions? Explain.

13. Do you think social media can be distracting from figure skating? Explain.
    a. Is this a positive or negative distraction?
    b. During training and/or competition?

14. Have you ever been trained on how to use social media? Explain.
    a. Has this been beneficial to you?
    b. Do you think more social media training should be offered to elite U.S. figure skaters?

15. Do you have any recommendations for other elite skaters on how they might use and/or manage social media?

16. Are there any other comments you would like to make regarding social media and how it affects figure skaters or athletes in general?

17. Do you have any questions for me?

Idiographic Profiles

Participant 1

Participant 1 is a female ice dancer who has been participating in competitive figure skating for 17 years. Currently, she is training for the upcoming season. She has competed at both national and international competitions including U.S. Figure Skating Championships, Junior Grand Prix events, Grand Prix events, and Four Continents Figure Skating Championships. She has been competing at the senior level for the past five years. Her social media use includes the applications Instagram, Snapchat, and TikTok. It is interesting that she does not use Twitter being that Twitter is a main platform for members of the figure skating community. She makes a multitude of changes to her social media use when at competitions and estimates that she spends 30 minutes to an hour on social media per day. She scored a 1.90 on the psychological ramifications of social media use scale which is a relatively low score indicating she perceives social media to have a larger negative impact than positive impact on her psyche surrounding figure skating.

When we began the interview, she seemed to be very thoughtful of how she answered my questions. This included taking pauses to think before formulating a full answer. As we continued, I think she began to feel more comfortable. Throughout our conversation, the participant expressed both the positive and negative aspects of social media use. Her first statement about social media use and figure skating involved the concept that as you become a higher level, more recognized athlete, you are "almost expected to have a more of a presence" on social media. She also talked about how social media can cause a multitude of different emotions. She didn't delve into a specific time in which social media caused an emotional

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reaction. Rather, she explained that seeing other athletes post content (of their accomplishments or videos of skating elements) can cause self-doubt. She called social media a "highlight reel" and detailed that she deals with self-doubt by reminding herself of this. Multiple times she expressed that social media can affect her if she lets it and that it has had an impact on her in the past. The participant overall had a considerable understanding of how to use social media purposefully as well as when to avoid specific content or use overall. She explained her changes in social media when approaching and during competitions is due to avoiding the possibility of seeing content that will cause any sort of reaction or distraction.

Overall, this participant seemed knowledgeable of the impact of social media on her skating and psyche. Social media "can" affect her anxiety, motivation, and body image surrounding figure skating. However, she has cultivated an understanding of how to actively use social media platforms in a way that will enhance her skating and experiences within the sport.

Participant 2

My second participant is a very high-level competitor. She has been to the Olympics and World Championships. She has been competing both nationally and internationally for nine years. She is also a friend of mine and has always been a genuine, kind individual on and off the ice. She uses all the main social media platforms: Twitter, Instagram, Facebook, Snapchat, and TikTok. When at competition she limits time on social media, only uses specific platforms, and stays completely off social media on the day she competes. She indicated on the survey that she spends one to two hours using social media daily with most of her use being on TikTok and Snapchat. She indicated that she does not use Twitter and Facebook on a daily basis. She scored low (1.73) on the overall psychological ramifications scale indicating social media negatively impacts her mindset surrounding figure skating.

I truly appreciated this participant's willingness to open up about her experiences. In similarity to other participants, this participant conveyed that social media can have positive and negative ramifications. Although she avoids social media during competition, she said she searches through social media for comments about her skating. She said she sees negative comments about her skating, but she tries to "turn the negativity into something positive". She detailed a few specific experiences in which social media affected her mindset. This included a specific experience at a competition in which fans/spectators bashed her on the internet for something out of her control. She had to overcome this by rationalizing and coming to terms with the fact that fans/spectators are not in her shoes. She is "adamant" about avoiding social media when competing. She also expressed feeling the pressure to post on social media about her skating but has realized that it is not very important to her to do so and that it is "not her thing". She said she would rather focus her efforts on training. The participant explained that social media can affect her confidence, anxiety, motivation, and body image specifically when she sees competitors obtaining certain skills and posting them. She also feels anxiety when she is absent from producing content on social media because she feels the need to appease fans. She recommends that other athletes "only share what they are comfortable with" and mute/block content when needed.

This participant understands that social media can be used by athletes to promote themselves. However, she seems to separate herself from the pressure of doing so. She has had multiple negative experiences as a result of content viewed, even when she has made efforts to avoid such experiences. She was willing to open up about her experiences and I believe she is very comfortable with her stance on social media use.

Participant 3

This participant is a singles figure skater and has been competing for 21 years. He has been to a multitude of large events throughout his career including the Olympics and World Championships. He uses six different social media platforms and his favorite to use is Instagram. Within the survey, he indicated that he uses social media for two to three hours per day. The survey results also indicated that he perceives social media to have a more negative influence on his psyche surrounding figure skating being that he scored 2.17 on the positive psychological ramifications subscale and 3.61 on the negative and psychological ramifications subscale. He has used many strategies to guard himself from the negative ramifications that can result from social media use. One being completely stopping use when preparing for and during competitions. I have known this participant for over 10 years and have always found his presence very enjoyable because of his extreme kindness.

The participant was willing to go into great detail about the effects of social media, his personal experiences, and how he has safeguarded himself against the negative repercussions caused by social media use. He expressed his interest in this project and seemed to want to answer the questions to his best ability. The participant values having a presence on social media. However, he expressed anxiety about creating content that is "perfect". Similar to other participants, he talked about social media evoking a comparison game. He feels that other individuals' content (ex. video of new jump accomplished) causes him to look inward and compare his abilities or experiences to theirs. He often reminds himself that social media is specifically crafted to individuals to represent their best self; it is "filtered". He explained this can result in wavering confidence.

The participant recalled that he did not have social media when he was balancing high school and training. He has realized that this contributed to his ability to balance his busy

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schedule because social media was not causing distraction. As a high-level athlete, he has worked with a sport psychologist for much of his career. He explained that they have worked together to create a plan for his social media use surrounding large competitions. For some of his career, he set a time limit on his social media use and only used it after practice at competitions and after competing. More recently, he progressed to completely avoiding social media when preparing for and during events.

Overall, this participant recognizes the good and bad that comes with using social media. He has learned through his experiences and has adapted his uses accordingly. He uses his platform to create content that spreads joy (specifically surrounding figure skating) and shares his belief in being true to yourself.

Participant 4

Participant 4 is a male, pairs skater who has been competing for 26 years. He has been a senior level competitor for ten years and has participated in many high-level competitions including Four Continents Figure Skating and World Championships. He uses six different social media platforms using YouTube the most. He reported using social media for one to two hours a day and overall perceives social media to have a neutral influence on his psyche surrounding figure skating (scoring 3.00 on overall psychological ramifications). Throughout our conversation he explained that his social media use has evolved over time to include less content related to figure skating and he makes efforts to mute individuals on social media he does not want to see. The participant "doesn't go on social media very often anymore" and rather listens to podcasts or watches YouTube videos that are educational.

One of the most interesting things this participant talked about is that social media is an "amplifier". So, when he and his partner were skating well, he felt that the content on social

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media was supportive and uplifting. Whereas, when they were skating poorly, there was an increase in negative content. As a result, social media creates a finer focus on how the athlete is skating and accentuates successes or failures. Additionally, the participant has felt pressure to maintain a presence (related to figure skating) on social media. However, with experience and personal growth, it seems he is comfortable with his absence from social media. He is cautious about his social media use during competition. The participant mutes content that is distracting and avoids use outside of communicating with significant others. When asked about the influence of social media use on his confidence and motivation, he explained that it has no impact on him. He did explain that he has seen other individuals' confidence and motivation affected.

Overall, with this participant's many years of experience as a figure skater and using social media, he has learned how to manage his use and social media content. This allows him to reap the benefits of use while avoiding the negative impacts. While seeming to be admirable in how other athletes use their social media to gain fans and "boost themselves", he is comfortable in how he uses social media as a tool of entertainment and learning.

Participant 5

This participant has been my friend for many years although we have not been in contact for a few years. He is 27 years old and competes in the singles division. He has competed as a senior man at the U.S. National Championships six times and has not competed internationally. He uses six different social media platforms and Instagram is his favorite to use. This participant estimates that he browses social media for two to three hours per day and uses YouTube the most frequently. The survey results indicate that he uses social media the most as a form of

entertainment. His score on the overall psychological ramifications scale was 2.27 indicating he perceives social media to have a larger negative impact on his psyche surrounding figure skating.

The participant believes that social media can have both positive and negative effects on his mentality related to figure skating. When asked about specific content that causes an emotional reaction, he talked about content that is critical of other athletes. He detailed that fans or even retired skaters often express their opinions about figure skaters that, in his opinion, are not accurate. This irritates him and makes him angry. On the more positive side, he feels that other figure skaters are becoming more "vulnerable" on sharing things that have not been shared in the past (ex. choreography videos after retiring) that inspire him to continue to skate even with retirement on his horizon in the next few years.

He mentioned that social media can lead to anxiety and diminished self-confidence. When the opportunities of other skaters, such as shows or international competitions, are broadcast on social media he feels that this can lead to negatively impacting his confidence level and make him feel a sense of anxiety about not being invited to participate. However, he feels now that he has a better team (coaches and training mates) surrounding him at this point in his career which reduces the impact of such posts. He has filtered who he follows on social media to his liking. However, he feels that Twitter can be very cynical and for that reason he reduces his use leading up to large competitions.

Overall, this participant seemed to be very bothered by content that criticizes athletes. He explained that he easily latches on to negative things but believes social media can be positive if used as ways of connection, motivation, and inspiration. He recommends that individuals use social media to "create the space that you want… because what you post affects other people in more ways than you think."

Participant 6

This participant is an 18-year-old figure skater who competes in the ladies singles division. She is a newcomer into the elite skating world and looks forward to continuing her career and achieving further success. The social media platforms she uses include Instagram, Snapchat, and YouTube and her favorite platforms to use in general and for figure skating purposes is Instagram. She indicated within the survey that she spends one to two hours on social media per day with a majority of her use being on Instagram. The survey results also indicated that she perceives social media to have a more positive impact on her figure skating mentality (scoring 3.30 on the over psychological ramifications scale). With her recent rise to the senior level, she is feeling a bit more pressure surrounding her social media use and content production.

In comparison to some of my other participants, this skater has a bit less experience in the elite level of figure skating. However, similar to other participants she feels pressure surrounding content production on social media. Specifically, she feels like a video or image must be "perfect" to put on a social media platform which can result in her overanalyzing videos of herself and feeling insufficient. She noted the pressure and anxiety surrounding content production multiple times throughout the interview.

Interestingly, this participant has separate social media accounts. One account is private and is used to connect with significant others such as friends and family. Her second account is a public account in which she uses to follow figure skating and create content surrounding her figure skating. She noted that she often uses social media more often during competitions to both post more as well as distract herself from overthinking. Her personal account is used as a distraction which is positive for her, and her public account is used to post about her experiences at the competition.

When asked if social media influences how she competes, her training, and her body image she was quick to answer no. In terms of motivation and anxiety, she believes social media to have an effect. Viewing videos of other high level figure skaters is very motivational to her. The pressure to produce content results in anxiety. Overall, the participant seems to do an excellent job of managing her social media use and is conscientious of how it can affect her and other athletes.

Participant 7

This participant is a female ice dancer. She is 21 years old and has been competing at the senior level for four years. Competitions she has participated in include U.S. Figure Skating Championships, Junior Grand Prix events, Junior Grand Prix Finals, Grand Prix events, and Four Continents Figure Skating Championships. She has been competing for 16 years. Her social media use includes the platforms Instagram, Facebook, Snapchat, and TikTok. She no longer uses Twitter and noted "Twitter is the worst" platform in regard to negative content about figure skaters. After a discussion with her sport psychologist (in the past), she decided to delete Twitter for a few months. She decided to stay completely off Twitter after this and she "feels much, much better". Survey results indicate she uses social media one to two hours per day. Relative to other participants, she scored very low (1.70) on the overall psychological ramifications scale. This indicates that she perceives social to have a much larger negative, than positive, impact on her figure skating psyche.

The participant has had multiple experiences in which she has seen negative comments made about herself on social media platforms. In one instance, this led to her second guessing the quality of her and her partner's new skating program. These experiences happened when she was

younger. She noted that now she has learned to filter the content she views on social media and as a result, how she trains and competes is no longer affected.

We took a moment to discuss the effect of social media on body image. She noted that comments in the past have been specifically directed at her in regard to her size, one saying "she looks like a balloon" when she was only 14 years old. She noted she has seen comments about body size of skaters very often on social media and this can be very frustrating to her. She explained that especially when figure skaters go through puberty "people are brutal" and that figure skaters are "already so concerned about our bodies, you don't need a stranger telling you that you gained weight".

The participant recommends that figure skaters should find "what works for you" regarding their social media use. She advocates for filtering out individuals/content that is negative and to use social media as a form of connection rather. She noted that navigating social media is often learned from trial and error and with maturation. Her social media use now is much different than it was when she was a bit younger, and it seems to be much more beneficial for her psyche and skating.

Participant 8

The last participant is a 20-year-old female who has been competing for nine years. She is in the ladies singles division and has competed in the senior level at U.S. Figure Skating Championships multiple years in a row. She has also competed at Junior Grand Prix events and at Four Continents Figure Skating Championships. Her favorite platform to use in relation to figure skating is Instagram. The only other platform she uses is Snapchat. Of all eight participants, this participant uses the fewest number of social media platforms. Additionally, she spends less time (30 minutes to one hour) on social media per day than most participants. She

perceives social media to have a great positive impact on her mentality surrounding social media (scoring 3.28 on the over psychological ramifications scale).

She says she uses social media the most to connect with people, share her experiences, and broaden her platform (i.e., fan base/following). The participant also expressed that she can experience anxiety from viewing competitor content on social media. For example, if someone posts a new jump, she often feels a bit of self-doubt. She counters this by reminding herself that it is easy to take a multitude of videos and only post the best one. This touches on the concept of social media being a "highlight reel".

The participant delved into the triggering content that is posted on social media leading up to competitions. She said people post predictions and/or data analyses of specific athletes skating throughout the season which can "set you up to either have really high expectations or really low expectations". She noted that this is very negative for her mindset. She also said that the effect of these types of posts is dependent on how she is training and performing. If she is training well, her self-confidence allows her to be less affected by social media content. Whereas, if she is struggling with skating, social media has more of an effect on her self-doubt and can cause an even more negative mindset.

Social media can also be inspiring for her. For example, if she sees a competitor's content and uses it as motivation to train harder. She explained that finding a balance on social media between the positives and negatives is very hard. However, she understands how to do this for herself.

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