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"It's the Universal Language:" Investigating Student-Athletes' Use of and Motivations for Playing Fortnite

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This research examined student-athletes' usage of and motivations for playing the video game Fortnite. Social video games such as Fortnite are growing in popularity and athletes have become a visible consumer group. Semi-structured interviews with 22 Division-I student athletes were conducted. Analysis of the interviews generated six usage and motivational categories: (a) Fortnite as a Competitive Outlet; (b) Fortnite and Addiction; (c) Fortnite as Shared Athletic Experience; (d) Fortnite as Social Bonding; (e) Fortnite and External Social Connections; and (f) Fortnite as Relaxation. The results suggest that video games such as Fortnite provide meaningful social connection fulfillment needs for student-athletes, and also allow them to interact with fans and student-athletes at other schools. Yet, Fortnite also fosters addictive tendencies that can negatively impact their academic performance and well-being. Accordingly, coaches and others student-athlete support personnel can use video games to help student-athletes meet socialization needs while also promoting educational programming to help them minimize negative effects.

Keywords: Fortnite, student-athletes, video games, uses and gratifications theory, video games and addiction

Video games have surged in popularity (Kahn et al., 2015; Ward, 2018). Reports indicate that at least 59% of Americans play video games, with the average U.S. household possessing at least one dedicated gaming system (Kahn et al., 2015). The Internet has transformed gaming into a social experience, enabling players to compete with others around the globe in multiplayer quests (Dalisay, Kushin, Yamamoto, Liu, & Skalski, 2015; Vella et al., 2019). Gaming's immense growth also has influenced the rise of eSport, or competitive gaming (Hallmann & Giel, 2018). In addition, Internet video game streaming has become popular, as numerous players broadcast their video game playing for mass audiences to consume, through platforms such as Twitch (Hilvert-Bruce, Neill, Sjöblom & Hamari, 2018), a site that reports 2.2 million daily broadcasters, with 15 million daily viewers (Iqbal, 2019).

The seismic growth and proliferation of streaming can be vividly illustrated with one particular video game – Fortnite. (Webb, 2019). Whereas Fortnite has attracted a vast audience of users, one noteworthy and visible consumer group is athletes. For instance, Sepkowitz (2018) chronicled Fortnite participation by National Basketball Association (NBA) players, observing how players used Fortnite to stay connected with one another. He also discussed how Fortnite's multiplayer random assignment model allowed players such as Paul George to connect and play Fortnite with the public. Within college football, sport media members also have documented Fortnite's popularity. For example, Lawson (2018) reported that over 50% of the Washington State University football team played Fortnite, participation numbers that echoed Myerberg's (2018b) investigation, which found that college football players spent significant time playing Fortnite. Although Fortnite enables athletes to stay connected, build community in the locker room, and have unique interaction opportunities with fans, there are increasing concerns from coaches and other sport organizational personnel about how Fortnite consumption could negatively impact athletes (Fortier, 2018). For instance, within intercollegiate athletics, worries exist about student-athletes' Fortnite consumption, given their highly structured schedules and limited financial resources (Myerberg, 2018).

In addition to time demands, concerns exist about student-athletes getting proper sleep (Brauer, Athey, Ross, & Grandner, 2019), maintaining academic performance (Nichols, Lough, & Corkill, 2019; Turick, Bopp, & Swim, 2019), and managing their mental health (Gross, Moore, Gardner, Wolanin, Pess, & Marks, 2018; Ryan, Gayles, & Bell, 2018), areas that can be impacted by video game consumption. However, student-athletes also desire a life balance (Barnhill, Otto, & Phillips, 2018) and seek social support (Berg & Warner, 2019; van Raalte & Posther, 2019), needs that can be fulfilled through video games, particularly as the Internet enables them to connect with friends and family in their home locations. Considering Fortnite's popularity among student-athletes, along with concerns about its potential negative effects, this stakeholder group warrants investigation.

Previous work has examined the role of video games as a rehabilitation tool (Arvinen-Barrow, Maresh, & Earl-Boehm, 2019), and the growth of collegiate eSports teams with their potential implications for reform within the National Collegiate Athletic Association (Baker & Holden, 2018). However, little is known about student-athletes motivations for playing video games and how these choices may affect them. In the current study, we interviewed student-athletes to ascertain their motivations for playing Fortnite. This investigation helps us to better understand why student-athletes play video games such as Fortnite, and provides data that coaches, intercollegiate athletic administrators, and student-athlete support personnel can utilize

to support student-athletes to manage gaming constructively while minimizing its negative effects. We note that while Fortnite is likely to lose favor with student-athletes, the underlying structure of social gaming and the competitive design elements within this medium suggest that student-athletes will continue to be a viable gaming consumer group.

Review of Literature

Fortnite

Fortnite, made by Epic Games, was released in July 2017 and has become a significant force in the gaming world. For example, in 2018, Epic Games, grossed a profit of 3 billion dollars, which was largely attributable to the success of Fortnite (Russell, 2018). Fortnite is estimated to be played by 250 million people globally, or, said differently, a number equivalent to approximately two-thirds the population of the United States (Gilbert 2019). Estimates also suggest that timewise, Twitch users have spent over 5,000 years watching Fortnite streams (Sepkowitz, 2018). The popularity of Fortnite and the revenue its skilled players can garner from streaming has prompted parents to hire Fortnite coaches for their children (Fagan, 2018). Fortnite allows players to participate in two game structure formats: a base game for which users pay, or the more popular free battle-royale format (Sepkowitz, 2018). The battle royale structure utilizes a competitive first-person shooter (FPS) format, by randomly airdropping a group of 100 players onto an island where they fight to survive by obtaining supplies, weapons, and materials. As the game progresses, playing space shrinks to force participants into combat, until only one player is left (Melcon, 2018). Many Fortnite users engage in microtransactions to obtain “Vinderbucks,” the game’s internal currency, which allows them to purchase items that enhance their character, such as “skins,” outfits that bolster their character’s capabilities (Fortnite V-Bucks, 2019). The popularity of Fortnite overall, and with student-athletes specifically, provides a compelling opportunity to investigate and better understand student-athletes’ motivations for consuming video games.

Video Game Player Motivations

Video game players report a variety of motivations for participation which satisfy specific needs (Lucas & Sherry, 2004). Bartle (1996) proposed four types of motivations that underpinned people’s video game consumption: (a) achievement, wherein users have game-related goals and a desire to pursue these objectives; (b) exploration, characterized by players wanting to experience the virtual world as much as possible; (c) socializing, wherein participants use the video game context to interact with others; and (d) imposition, which involves people using video games to either exert distress upon or aid others. Sherry, Lucas, Greenberg, and Lachlan (2006) found that gamers’ motivations centered on: (a) arousal; (b) challenge; (c) competition; (d) diversion; (e) fantasy; and (f) social interaction. Yee (2006) posited that motivations for video game consumption centered on three focal areas: (a) social; (b) achievement; and (c) immersion.

Social motivations are a consistent motivational factor found in the literature (Kahn et al., 2015). Social motivations refer to individuals who experience satisfaction because video games allow them to meet, collaborate, and help other players (Yee, 2006). These players also feel satisfaction from group effort (Dalisay et al., 2015). Achievement motivations encompass

players who derive satisfaction from the swift progress and power accumulation that they obtain in the game (Yee, 2006). These players enjoy analyzing the mechanics and numbers inherent in the game as well as experiencing adrenaline rushes from competition (Dalisay et al., 2015). Immersion motivations capture players who experience satisfaction because games allow them to explore locations and artifacts of which they are unaware (Yee, 2006). These individuals derive pleasure from living through the character they create and modify, and use video games as a stress reliever to relax from real-world stress (Bourgonjon, Vandermeersche, De Wever, Soetaert, & Valcke, 2016; Dalisay et al., 2015). Motivations need not be mutually exclusive and video game players can possess multiple motivations and are driven by unique needs (Dalisay et al., 2015; Kahn et al., 2015).

Whereas some researchers have devised taxonomies that span genres (Sherry, 2006), other researchers have found that certain types of games (e.g., First-Person Shooter) may elicit more pronounced motivations (Jansz & Tanis, 2007; Lee, Lee, & Choi, 2012). Gender also may influence motivations as male players have been found to report higher manipulation and achievement factors whereas females report higher relationship, immersion, and escapism motivations (Yee, 2006). In addition to motivations for playing games, scholars have noted that video games may yield prosocial benefits to game players, such as increasing empathy (Dalisay et al., 2015).

Although researchers have documented the positive impacts video games possess, other scholars have raised concerns about the negative impacts of video games. These concerns are often echoed in the mainstream media and championed by parent groups and other media advocates (Bushman, Gollwitzer, & Cruz, 2015; Carey, 2013; Maguire, 2017).

Video Game Concerns

There are differing opinions on the cumulative impact of video games on users (e.g., if playing violent video games causes users to be more violent) (Ferguson, 2015; Ferguson & Colwell, 2017). The World Health Organization (WHO), in the 11th Revision of the International Classification of Diseases (ICD-11) defined gaming disorder, including both online and offline formats as:

Impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences (Gaming disorder, 2018).

However, there are debates about this particular classification of Internet Gaming Disorder (King et al., 2018). Ferguson (2015) observed that a generational divide may exist, with older scholars and clinicians holding negative views about video games that are influenced by negative beliefs about younger generations.

Acknowledging this lack of consensus, concerns have been raised about video games (Lemola, Brand, Vogler, Perkinson-Gloor, Allemann, & Grob, 2011). For example, researchers have found that exposure to violent video games is linked to aggressive outcomes (Greitemeyer, 2018; Krahe, 2014). Other work has noted an association between playing violent video games and increased aggression, which can then spread to the player's social networks (Greitemeyer, 2018). Burnay, Bushman, and Larøi (2019) also found that playing video games with sexualized

female characters increased online sexual harassment against women. Researchers also have observed that playing video games at nighttime is associated with depressive symptoms (Lemola et al., 2011). Stockdale and Coyne (2018) found that video game addicts experienced lower overall health outcomes. Additionally, despite the ability to socially connect via the Internet with other players, social isolation remains a concern for video game participants as well (Stavropoulos, et al., Williams, 2006).

However, scholars also have found that social gaming contexts can help offset aggression effects (Velez, Greitemeyer, Whitaker, Ewoldsen, & Bushman, 2016) and that players are aware of the negative effects that may arise from excessive gaming consumption (Bourgonjon et al., 2016). Some researchers have discovered that support structures may influence whether video game players experience more positive or negative outcomes (Li, Lo, & Cheng, 2018). Given the diversity of benefits and risks that attend video game consumption, researchers have argued that, “it is important to understand why people play video games” (Kahn et al., 2015, p. 354). We contend that student-athletes represent a viable stakeholder group to examine, given the time demands that their athletic and academic participation requires, the apparent growth of student-athletes becoming more involved in social gaming, and rising concerns from coaches and other organizational personnel about athletes’ video game consumption (Fortier, 2018; Myerberg, 2018b).

Athletes and Video Games

Popular press articles (Lawson, 2018; Myerberg, 2018) have documented the allure of Fortnite among student-athletes. However, these reports also discuss organizational concerns about the time athletes spend consuming the game. For example, Myerberg (2018b) chronicled University of Virginia football player Olamide Zaccheaus having to quit Fortnite because, “I was kind of slacking on other things” (para 4), along with Georgia Tech player TaQuon Marshall reporting that he, “will personally stay up until two or three in the morning playing with teammates and my boys from other schools” (para. 17). Given these consumption levels, it is not surprising that coaches possess critical attitudes about Fortnite, as evidenced by quotes from University of Pittsburgh head football coach Pat Narduzzi, “It bothers me that people are into it. But that’s the generation we’re in. They’d rather do that than work” (Myerberg, 2018b, para. 26).

Other video game research has found that excessive video game consumption can impact physical health, particularly among young athletes (Sekiguchi et al., 2019; Yabe et al., 2018). For example, Sekiguchi et al. (2019) discovered that playing video games for more than 3 hours per day was associated with shoulder and elbow pain in young baseball pitchers. These results, coupled with other research which has found that playing video games late at night is correlated with depressive symptoms (Lemola et al., 2011), and that athletes often do not get proper sleep (Halson, 2019), underscore why sport organizational personnel would be concerned about athletes’ video game consumption. Yet, student-athletes also possess social support (Berg & Warner, 2019) and socialization (Cranmer, 2018) needs that may be met through video games (Dalisay et al., 2015). Consequently, we seek to understand student-athletes’ usage of and motivations for playing Fortnite by employing Uses and Gratifications as a theoretical framework to interpret their Fortnite consumption.

Uses and Gratifications Theory

Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1974; UGT) is centered on why people consume different types of media (Clavio & Kian, 2010). UGT is predicated on assumptions that: (a) communication behavior is goal-directed, motivated, and purposive; (b) audience members actively select and use communication; (c) behavior is influenced by social and psychological elements; (d) media engage in competition with other competitive forces to gratify users' needs and wants; and (e) people tend to be more influential than media in choosing what media fulfills their needs (Billings, Broussard, Xu, & Xu, 2019). Researchers have found that UGT illuminates understanding about people's choices and roles in media engagement to achieve their individual, psychological needs (Hilvert-Bruce et al., 2018). UGT has evolved from examining why people choose media, to what they do with media, as within contemporary society, media consumers are presented with a plethora of options from which they can consume (Billings et al., 2019). Indeed, Chen (2011) posited that UGT was critical in understanding social media given the interactive capabilities these platforms provide (Billings et al., 2019).

In sport communication and media research, UGT has been employed to examine traditional media (Kinkema & Harris, 1998; Nesbit & King, 2010), along with social and digital consumption (Billings, Qiao, Conlin, & Nie, 2017; Clavio & Walsh, 2014; Hambrick, Simmons, Greenhalgh, & Greenwell, 2010; Moore, 2018). For example, Billings et al. (2019) explored why U.S. and Chinese sport fans utilized social media platforms such as Facebook, Twitter, Weibo, and WeChat, while Spinda and Puckette (2018) examined motivations for following sport teams Snapchat accounts. Smith, Pegoraro, & Cruikshank (2019) utilized UGT to understand Twitter's role in sport viewing and enjoyment. Additional research has employed UGT to examine motivations for consuming e-Sports content (Brown, Billings, Murphy, & Puesan, 2018), and sport video games (Kim & Ross, 2006). Browning and Sanderson (2012) also utilized UGT to investigate student-athletes' motivations for using Twitter. We seek to add to this literature by employing UGT to better understand student-athletes' Fortnite consumption. To guide analysis, the following research question was posed:

RQ1: What motivations do student-athletes report for playing Fortnite?

Method

Recruitment

This research was part of a larger study investigating student-athletes, coaches, and their experiences with Fortnite. Participants consisted of Division I student-athletes in the southwestern United States. Student-athletes were recruited via snowball sampling to participate in an interview about their Fortnite use. Prior to recruitment, institutional review board approval was obtained. Obtaining access to student-athletes can be difficult (Browning & Sanderson, 2012; Hartmann, 2014). However, the researchers were able to contact student-athletes with whom they had a personal relationship with and asked them if they were interested in participating in a study about student-athletes and Fortnite consumption. Student-athletes also were guaranteed confidentiality and provided with informed consent forms. As student-athletes participated, they were asked if they knew of other student-athletes who played Fortnite, who would be willing to participate in the study, and referrals were provided with the researchers

contact information. Student-athletes who played Fortnite, and who were willing to participate in the study, were contacted and a specific time, date, and place was scheduled for the interview.

Interview Procedures

A semi-structured interview format was selected as this method enables participants to offer spontaneous comments that yield rich data and increases the likelihood for candid and representative responses (Brown, 2011; Karim, Baily, & Tunna, 2000). This method also has been used in previous research examining student-athlete and social media use (Browning & Sanderson, 2012; Sanderson & Browning, 2013), and we believed a semi-structured approach would help us better understand student-athletes' motivations for playing Fortnite. Interviews were conducted by members of the research team, either individually or in pairs. One of the 21 interviews was conducted by telephone, the rest were conducted face-to-face. Examples of interview questions included "When did you start playing Fortnite?" "How long have you been playing Fortnite?" and, "Why do you play Fortnite?" Each interview was digitally recorded and transcribed by a professional transcription service. This yielded 68 single spaced pages of data.

Participants

The sample consisted of 22 student-athletes who played the following sports: (a) football ($n = 6$), baseball ($n = 12$), men's basketball ($n = 3$) and golf ($n = 1$). We acknowledge that female student-athletes were not represented in our sample. This may be a limitation of our recruitment method, but also reflects research which indicates that male college students tend to consume video games more than female college students (Ogletree & Drake, 2007), along with popular press articles noting that women are underrepresented in Fortnite tournaments (Elsesser, 2019). Anecdotally, the researchers had several recruitment conversations with female student-athletes, and while not representative, these female student-athletes reported that they did not play Fortnite and had only observed their male counterparts playing the game. Participants reported a range of consumption patterns with Fortnite. Some student-athletes reported playing from the time the game was released, while others used Fortnite's seasons (approximately 10-week periods) to pinpoint when they began playing. Participants also disclosed varying durations spent playing the game. For example, some student-athletes reported that their playing time had decreased since entering college but that they had played 3-4 hours per day at their peak, whereas some student-athletes reported playing only one hour per day. Other student-athletes disclosed higher consumption patterns, as evidenced by being unable to quantify how much time they spent playing the game. This particular consumption level was typified by one student-athlete who reported, "I play like all day til all night. I didn't go to sleep until three in the morning. I've already played today. I've been moving, but I woke up this morning and I played."

Data Analysis

To answer the research question, a qualitative, thematic analysis of the transcripts was conducted as we were interested in understanding student-athletes' usage of and motivations for playing Fortnite, as opposed to trying to predict behavior or gaming consumption patterns. In the first step of data analysis, all three researchers performed an active reading of the data, or what Lindlof and Taylor (2011) classify as "inductive" and "reflective" processes of categorizing (p.

243, 246). Braun and Clarke (2006) posited that this process enables researchers to search for meaning and patterns in the data, which allows for potential tendencies to emerge and be shaped. Through this process, researchers make meaningful notes of interesting material in the data that is used to generate initial thematic categories. This level of analysis also involves assigning descriptive words or phrases to describe participants' statements (Champion, Berry, Kingsley, & Spence, 2016). Researchers can employ either an inductive data-driven approach, or a deductive theory-driven approach (Braun & Clarke, 2006) and we used an inductive data-driven procedure, allowing categories to emerge from the data rather than using *a priori* categories. Nevertheless, we were guided by the literature with concepts such as addiction to capture excessive video Fortnite consumption, stress management for student-athletes who talked about using Fortnite to relax, and social bonding to capture student-athletes who played Fortnite to stay connected to family and friends from whom they were separated.

After this initial reading, the three researchers met and collaboratively reviewed their preliminary list of inductive categories from the transcripts. In the next round of coding, the researchers sorted their initial codes into second-level themes that most vividly captured the messages and language of the initial codes (Champion et al., 2016). Through this process the researchers grouped categories into common themes and began to develop these themes by micro-analyzing student-athletes' responses and classifying them into these identified categories, while also allowing for additional emergent categories (Strauss & Corbin, 1998). Through this process the researchers ensured that themes met Owen's (1984) criteria for repetition and recurrence. That is, the researchers engaged in question asking by determining how similar or different identified themes were to one another (Ryan & Bernard, 2003). Given the interpretive nature of the research, along with the literature indicating that video game players can have multiple motivations for consumption (Dalisay et al., 2015), we allowed for comments to be placed in more than one category. In the final round of coding, the researchers utilized a comparative method to re-examine each participant's comments to ensure that the thematic analysis accounted for all identified data (Zanin, 2018). This process of axial coding, allowed for development, clarification, and refinement of categories to continue until new observations did not substantively add to existing categories (Suter, Bergen, Daas, & Durham, 2006). All three researchers then reviewed the categories and any differences were resolved until consensus was reached (Sanderson, Weathers, Snedaker, & Gramlich, 2017).

Results

Through the aforementioned data analytic process, student-athletes' usage of and motivations for playing Fortnite was grouped into the following areas: (a) Fortnite as a Competitive Outlet; (b) Fortnite and Addiction; (c) Fortnite as Shared Athletic Experience; (d) Fortnite as Social Bonding; (e) Fortnite and External Social Connections; and (f) Fortnite as Relaxation. We now provide exemplars drawn from the data to illustrate each category. Comments were taken verbatim, therefore grammatical errors were left intact. Additionally, to protect participants' confidentiality, references to sport, schools, or any other data that could be personally identifiable is anonymized. Table 1 illustrates the number of comments from the data set in each theme along with the number of participants who made comments in each theme.

Table 1.
Participant Comments and Themes

Theme	Number of Participants	Number of Comments
Fortnite as Competitive Outlet	13	32
Fortnite as Addiction	20	78
Fortnite as Shared Athletic Experience	16	41
Fortnite as Social Bonding	19	72
Fortnite and External Social Connections	14	51
Fortnite as Relaxation	15	38

Fortnite as Competitive Outlet

Sport is inherently competitive, and student-athletes reported that Fortnite allowed them to fulfill their competitive desires and noted how game elements like Fortnite winning streaks fueled their desire to play. One student-athlete stated:

The only connection I can make between Fortnite and maybe an athlete is just kind of how you are competitive at the game and spending so much time getting good at it. Kind of like how you are in whatever sport you're doing.

In addition, the format and structure of Fortnite also allowed student-athletes to fulfill competitive needs. For instance:

But the theme of it is very interactive and enjoyable to watch because it's kind of like the Hunger Games style where's it's everyone flies in there's like a hundred people and it's like all right, last one standing wins, essentially. And so very entertained by it.

Another student-athlete shared:

It's especially clutch when the circle ends and you have to kill the dude in the storm and so I feel like that is a clutch moment and it's a big moment because when you win, everybody's live. Especially if you got a high kill game.

Student-athletes also reported that competition included responding to challenges from other people (some student-athletes reported listing their Fortnite ID in their social media profiles). Examples here included, “People are trying to challenge you all the time. Especially fans. If you post on Instagram or Twitter, a lot of fans are going to comment on it, trying to play you, say you’re sorry, all that;” and, “Especially if you have a lot of people that play other teams, they’ll come on there and be like, ‘play me’ and stuff like that.”

Fortnite and Addiction

Perhaps because of their competitive needs, some student-athletes reported that they had become addicted to Fortnite. For example, student-athletes commented, “Oh I’m definitely addicted;” while another shared:

It's an addiction, and you've really got to have that self-control to slow that addiction down. You're not going to just, 'I'm going to stop doing it.' Me personally, I can't just stop doing it, but I have tried to slow down on it and put it to the side.

Another student athlete commented:

One game can last 20 or 30 minutes. So you don't play... You play five or six games and it's been three hours, which you don't realize. Like other games where it's a lot quicker and I'd stay up really late so I wouldn't get to wake up and eat breakfast. I'd sleep until noon and it would just throw off my entire day, wouldn't get to workout, I'd have to crunch in my workout. So it was like a fall down effect. Everything would be affected.

Other student-athletes discussed the effects stemming from their Fortnite addiction. These included Fortnite consuming their attention while in class, when trying to go to sleep, and their financial investment in the game. Sentiments here were typified by comments such as:

The way I go to sleep is I go to YouTube, and I watch some of my favorite YouTubers who played Fortnite, and that's how I got to sleep. So it's Fortnite, Fortnite, Fortnite. Even when I'm not playing Fortnite, it's more Fortnite. My thing was, you're going to think I'm crazy, but in class, I would be like watching on YouTube livestream.

Another student-athlete reported:

I had to put a lot of stuff on the back burner for Fortnite. School, homework, practice, my sleep, my body. I was ready to skip treatment a couple of times. Tutoring-I'm not trying to go to tutoring. I go to tutoring for 30 minutes, then run up out of there to run back to get on Fortnite. It takes time. It takes time away from the things that you really need.

Another student-athlete commented:

There's been times where I've been playing with my friends on a school night and I lose track of time, it will get pretty late and it'll be the next day and sometimes I'll just sleep in

and skip class and other times I'll just be zoned out in class. So there's times it's affecting my schoolwork for sure.

One student-athlete talked about financial commitments to Fortnite:

I probably spent about six hundred, seven hundred dollars on Fortnite. I still buy skins to this day, I know it doesn't make you play better or nothing. It's just whenever you're playing against somebody and they see you have a new skin, it's like 'Oh, he's got that skin!'

The totality of Fortnite's addictive capabilities were illustrated by this comment from a student-athlete:

If I got an hour break, I go home and try to play for forty-five minutes. Like last night I go until three in the morning. I started playing at 10:00 play like all day until like all night. I didn't go to sleep until three in the morning. I've already played today. I woke up this morning and I played. I'm gonna go home right now. I'll play until I go to dinner, which is mandatory. And then I'm going to fix up my apartment a little bit more, and then play again until I go to sleep.

Fortnite as Shared Athlete Experience

One of the more surprising findings in this study was that student-athletes played Fortnite against student-athletes from other schools, which allowed Fortnite to function as a relational mechanism. This finding reflects the changing structure of youth sports, wherein athletes in sports such as baseball, spend significant time together at camps, showcases, and tournaments while in high school. Student-athletes clearly wanted to win their games, but the social connection with other student-athletes was something that student-athletes reported enjoying about the Fortnite experience. Examples here included:

I still have a Fortnite Snapchat group message and it's a kid from [school], a kid from [school], and a kid from [school] that I just met through playing [sport] and we all played and we'd just go home after tournaments and play.

Another student-athlete shared:

I think in my opinion it's cool. I love that the [sport] experience is almost a shared experience regardless of what jersey you're wearing. I know the guys at [school] whether they have better facilities, worse facilities, better jerseys, worse jerseys, a nicer coach, a meaner coach, whatever it might be, their experience is so parallel to ours. We all kind of understand the same battle, kind of fighting the same battles, enjoying the same things."

Other comments from student-athletes included:

But yes, rivalries. I think it's cool, I mean we'll go on the road, we'll go and grab a meal with guys from [school]. Because they come to [city] and they'll go have a meal together

because they have a relationship, and I'm like, 'How do you have a relationship with these guys?' Like all I know is their stats and [teammate] is like, 'Oh, we play Fortnite together.' I'm like okay, I can see myself a pretty relational dude, and he's just blowing me away because the connection he's getting.

Another student-athlete commented:

I don't think there's any lack of intensity that's taking place from a rivalry standpoint. We still want to beat the crap out of any of the guys we play. But at the same time, the connectivity level is so much more real because we kind of know the personality traits of guys on the [school] team simply because of the way they interact in Fortnite or the way their own guys dog them or compliment them to our guys like, 'oh yeah that guy's the worst' or, 'we love that guy he's one of our leaders or something.' There is a connectivity level that the game has enabled.

Fortnite as Social Bonding

Whereas student-athletes reported playing with their contemporaries, they also discussed that Fortnite had become a way to bond with their teammates. Consistent with media reports about Fortnite and college athletics (Myerberg, 2018a), student-athletes reported that to varying degrees, the vast majority of their teammates played Fortnite. For instance, "I feel like everyone on our team plays it;" "Every one of them. Every one of them except one or two maybe;" and, "For sure all [number] guys on the team have had exposure to it. I'd probably say [number] guys on the team have a gaming station with Fortnite on it."

One student-athlete noted how Fortnite functioned as a collective element that the team could bond over:

There's not one [sport] team out there who doesn't bond in one way, shape, or form, over Fortnite. You know, whether it's goofy celebrations, whether it's lingo from Fortnite that has just taken over like talk on the bus. People almost talk in a code where if you didn't understand Fortnite you would not be able to put together 'what on Earth is he talking about?'

Student-athletes also reported that Fortnite was a way they shared humor with one another. These sentiments were typified by comments such as, "guys just get made fun of just for something stupid they did in Fortnite. Whether they're like selfish and went on their own or stole the best gun or something;" and, "We'll get one guy on our team in particular the hardest time because he's like just a hog. This guy's the worst."

Some student-athletes perceived that bonding over Fortnite helped with team chemistry. For instance, "I think it can build chemistry possibly;" and "it builds chemistry. Some people become better friends because they're around each other more and they hear each other's voices more;" and:

Yeah, it's definitely brought me closer to people I probably wouldn't be as close with. I live in a house with [number] other guys and I'm pretty close with them but I feel like Fortnite's brought me closer to the other people who I play Fortnite with.

One student-athlete conveyed that teammates made inferences about each other based on the roles they played in Fortnite and evaluating how those roles transferred to the field/arena:

Yeah, it's team bonding. But also, if you play with random people, you find out who likes to be the leader, who likes to go where, who likes to be like the unselfish player and take meds, med kits. And I mean, you know, heal-ables for people if you get shot. Who's reckless and who's really smart and thinks it through. It's interesting how everyone plays because everybody plays different and that can lead to the field.

Fortnite and External Social Connections

Student-athletes also reported that Fortnite allowed them to stay socially connected to friends and others in their hometowns, and to engage other individuals, such as fans. Student-athletes conveyed, "Somebody asked me, 'what's your Instagram? and then I told them. 10 minutes later they post me on Instagram;" "I was playing with my cousins and then friends from the [sport] team;" and, "But I'll tell people I'm good, random people. If they're watching Fortnite or something, I'll tell them I play and I'm pretty good. So I've played with random people before."

Other student-athletes shared:

I probably never seen them before, but I posted a video or a clip or something on Snapchat, and then they might already have had my Snapchat. And maybe they'll add me, and then I'll add them, and then we'll get on the headset and be talking, and we might just become best friends.

Another student-athlete commented:

I don't really have a lot of people on my Snapchat, but on Instagram - I think I have 3500 followers. Half of them I don't know. So if I post something on there, some random person might send you something like, 'Hey, let me play with you!' I will add them just because I'm bored and will play a hundred games and might as well be with a fan.

Fortnite as Relaxation

Student-athletes also shared that playing Fortnite allowed them to de-stress and relax from their busy, often compressed schedules. Examples here included comments such as, "It took my mind off the game before and then when I was getting tired it was time to go;" "You need time away from the [sport];" and, "They got Fortnite in [facility] and we'll be in there playing. And then, I feel like it's just a little release so you just kind of forget about that for the moment."

Student-athletes also shared:

You don't have a lot of time, and when you do have down time, you just want to relax. So you can go and sit down for a couple of hours and play video games, and it keeps you busy. I really don't think it's bad for you in any way. It's just fun. It's just entertainment. It's awesome.

Another student-athlete commented:

We get so wound up in the (sport) stuff, with (sport) it's all day and then, especially during [season] camp, that was whenever Fortnite started getting popular with our team. We'll be in practice all day and then we'll have a little break, we go in the [facility] and start playing the game.

While student-athletes believed that Fortnite could be relaxing, one student-athlete shared how it also could trigger anxiety and emotional outbursts:

You're playing it and you're relaxed, but you also get anxious when you're playing. I've seen that in people, too. I've seen people break monitors, throwing controls, and screaming.

Discussion

This research explored student-athletes' motivation and usage around the video game Fortnite. The findings help extend uses and gratifications to additional media contexts and provide understanding for student-athletes' usage of and motivations for playing video games. Results indicated that student-athletes possessed varied motivations and ways in which they consumed the game, some of which can be considered positive (e.g., social bonding with teammates) and some of which raise concerns for coaches and athletic department personnel who work with them (e.g., addiction). These results provide a number of implications for student-athletes and intercollegiate sport stakeholders, which we now discuss.

First, consistent with previous research (Dalisay et al., 2015; Yee, 2006), Fortnite seems to fulfill social connection needs for student-athletes. Researchers have found that video game playing can provide social bonding benefits for families (Wang, Taylor, & Sun, 2018), and that online, multiplayer games can promote friendship and social interaction (Sundberg, 2018). For student-athletes, the transition to college can remove them from social support structures such as friends and family. Fortnite allows them to maintain these connections, and enables them to develop new relationships, which may help buffer stress and anxiety that they feel being geographically separated from friends and family. Student-athletes also reported that Fortnite promoted team bonding, and in this respect, Fortnite may be a mechanism to facilitate socialization for student-athletes (Cranmer, 2017; Cranmer & Myers, 2017). For example, coaches could integrate Fortnite to strengthen team chemistry and unity, such as potentially holding Fortnite competitions and tournaments among players. Tournaments or competitions that are organized from the top-down would help student-athletes see that coaches are connected to a topic that student-athletes also are interested in, and simultaneously provide an outlet for them to fulfill their need for competition.

These social connection needs also are indicative of shifts in marketing towards college students that are focused on social engagement through technology. For example, social media has been found to play an important role in how college students understand themselves, to feel positive, supported and connected (Fujita, Harrigan, & Soutar, 2018). Other researchers have noted that organizations who use social media successfully provide incentives for audiences to participate and provide frequent updates, strategies that promote enhanced consumption of social media content (Ashley & Tuten, 2015). The advent of mobile technology is influential here as

many consumers, particularly those in the age demographic of student-athletes, carry their mobile phones constantly. As a result, mobile social networks have become powerful agents for advertisers (Wu, 2016).

These trends are relevant to student-athletes and their Fortnite consumption as the game becomes a domain where student-athletes engage various other parties. They used the game to stay in contact with friends and family from whom they were separated, their teammates, and student-athletes at other schools. Consequently, it may be too dismissive to consider gaming as an activity where student-athletes are disengaged or isolated from others. Moreover, the social experiences associated with Fortnite arguably benefits Epic Games as the chance for fans to play with athletes may entice more people to consume the game to have chance opportunities at such encounters. Additionally, those student-athletes who list their Fortnite handles publicly make it easier for fans and others make Fortnite a shared experience with athletes. Thus, video game companies may seek out athletes as brand advocates as a form of engagement, because athletes are more accessible to fans and other game players through the social experience of games like Fortnite.

The social engagement via technology also contributes to a second implication from this study - the addictive elements in Fortnite that can become problematic for student-athletes. According to the American Psychological Association (APA), addiction is defined as, “compulsive substance use despite harmful consequences” (What is Addiction, n. d.). While Fortnite is not a substance addiction, there are elements in the clinical definition that should be considered with student-athletes and video game addiction. For example, one outcome of addiction is that over time, people need larger quantities of a substance to feel effects (What is Addiction, n. d.). This result can be seen in several of the student-athletes in the data who willingly acknowledged their addiction, noting that Fortnite was so consuming that they had difficulty sleeping, attending class, and wanting to skip athletic treatment. In other words, they had to play Fortnite increasingly more to the point where it overtook other life priorities. Previous research has discovered that when video game sales increase, college students spend less time attending class and doing homework (Ward, 2018). Given the consequences that deficient academic performance can have on student-athletes (e.g., ineligibility), it seems crucial for student-athletes to be supported in an effort to buttress addictive video game consumption.

An additional sign of addiction is social problems that prevent addicts from completing tasks at work and other settings (What is Addiction, n. d.). Student-athletes in the data reported evidence of this effect by talking about how their lack of sleep diminished academic performance. Further, researchers also have found that lack of sleep negatively impacts athletic performance (Sekiguchi et al., 2019; Yabe et al., 2018). Consequently, for student-athletes who experience decreased academic and/or athletic performance, it may be helpful to investigate if video game addiction is a contributing factor. While research on student-athletes' and media use is scarce, these results align with other work which has examined student-athletes' social media consumption (Hayes, Filo, Riot, & Geurin, 2019) and mobile phone use (Nurand-Bush & DesClouds, 2018) to ascertain how student-athletes can benefit from these technologies while mitigating their risk. Moreover, other work has discovered that sport consumption can reach problematic addictive levels (Aiken, Bee, & Walker, 2018), and it seems plausible that gaming consumption could mirror these results in student-athletes.

A third implication stems from student-athletes' social connection audiences through Fortnite. While student-athletes reported being able to bond with teammates, it was surprising to see the number of student-athletes who discussed playing with fans and student-athletes from

other schools. Student-athletes noted that Fortnite allowed them to fulfill competitive desires, so it was not unexpected that when challenged to play Fortnite, student-athletes would accept these invitations. It also was interesting to see the camaraderie between student-athletes and their contemporaries from other schools. Whereas student-athletes emphasized that they still wanted to win their athletic contests against these athletes, games such as Fortnite appear to be changing social relations amongst athletes. Specifically as these athletes matriculate through the youth sports club team/showcase/AAU circuit, games such as Fortnite become a way for them to connect, which then carries over after they elect to play for competing schools.

Although these interaction opportunities are not inherently problematic, they do pose some concerns for coaches and other intercollegiate administrators. First, researchers have documented that fans can attack student-athletes via social media platforms (Browning & Sanderson, 2012; Sanderson & Truax, 2014; Sanderson, 2018), and social gaming platforms such as Fortnite may provide a mechanism for student-athletes to be similarly engaged. Risk also exists as Fortnite games can be recorded, and student-athletes may disclose information via Fortnite that could become a public relations issue. For example, Auburn basketball player Danjel Purifoy commented in a Fortnite game that was being streamed on Twitch that officials had cheated Auburn in their Final Four loss to Virginia. Purifoy's comments subsequently became a news story (Marcello, 2019). In another example, San Diego Padres player Wil Myers criticized Padres manager Andy Green during a Fortnite stream with a teammate that he did not know was being recorded, which created a news story necessitating that Myers apologize to Green (Evans, 2018). Consequently, Fortnite streams should not be treated as private communication, and student-athletes should be cautioned to not divulge information through these platforms that they would not share through mainstream media channels.

Another potential concern here centers on the relationship between the school the athlete plays for and its stakeholders. For example, with recent legislation changes that will give student-athletes the ability to earn revenue from their name, image, and likeness, some fans may focus their attention and perhaps financial dollars on a student-athlete's gaming platform, rather than the school's fundraising coffers. Additionally, if a student-athlete becomes popular with fans through gaming, how might this relationship impact a coach's decision-making with the student-athlete? Moreover, to what extent is the student-athlete's popularity associated with their gaming skill or the name recognition associated with playing at a school with a national or regional reputation? The growth of e-sport platforms make gaming a crucial domain to watch as student-athletes eventually begin to earn money for their name, image, and likeness.

A fourth implication from the current research is the need for training and educational programming on video game addiction. Researchers have noted the benefits of other media training for student-athletes, such as with social media (Sanderson, Browning, & Schmittel, 2015; Hayes, et al., 2019). We contend that student-athletes would benefit from education that would assist them to better understand video game consumption, signs of addictive behavior, along with positive benefits that video games can provide. These training and education initiatives also could integrate content to help student-athletes identify ways that they could reduce screen time and avoid potential health consequences related to sleep and mental health that can arise from excessive screen consumption (Grant, Lust, & Chamberlain, 2019). Such training would need to be balanced (Sanderson et al., 2015) avoiding emphasis of only the negative aspects of video games. Additionally, given the popularity of gaming, it would be beneficial for coaches and athletic department personnel to evaluate current and incoming

student-athletes' gaming use, to determine which athletes might be more at risk for addictive behaviors, and thus, be more of a priority to support.

Limitations and Directions for Future Research

This research has several limitations which are now discussed. First, student-athletes are a difficult population to access (Browning & Sanderson, 2012), and while we feel fortunate to garner the participation that we did, further work should incorporate a broader sample of participants including female student-athletes who play video games. For example, there may be certain video games that female student-athletes consume instead of Fortnite. Thus, it would be useful to survey female student-athletes about their gaming consumption to understand if there are certain genres or categories of games that are more relevant to them. It also would be helpful to include professional athletes to examine the motivations and reasons underpinning their video game consumption. Second, our analysis was cross-sectional, and it would be fruitful to examine student-athletes' video game usage over time and assess its potential impact on athletic performance. In this respect, smart technology or other applications could be utilized to measure student-athlete consumption and then determine associations with in-season athletic performance. Third, our analysis only focused on student-athletes playing social games, and it would be beneficial to examine if student-athletes who consume non-social video games experience the same fulfillment as student-athletes who connect with other game players.

In addition to the aforementioned, there are several promising directions for future research. First, researchers have discussed that video games can help cultivate skills such as business knowledge management (Christoph, 2007; Kahn et al., 2015). Accordingly, it would be beneficial to examine how video games could be used in student-athlete programming around job marketing skills. Second, it would be fruitful to talk to coaches and athletic department personnel to ascertain how they understand student-athletes' video game consumption along with the messages they give to student-athletes about video games. Ferguson (2015) noted that generational differences may account for older adults' negative views of video games, and it would be beneficial to understand how coaches' messaging about video games is received by athletes to determine potential generational conflict in the coach-athlete relationship. Additionally, it may be that coaches have to find ways to utilize gaming and/or other mobile technology to connect with student-athletes who have grown up surrounded by screens (Gould, Nalepa, & Mignano, 2019).

Third, considering that many athletes are likely to start playing video games at younger ages, it would be fruitful to examine how parents and youth sports coaches navigate young athletes' video game consumption. For instance, do parents have conversations with their children about video games and its potential impact on athletic and academic performance? Fourth, with respect to addiction, it would be worthwhile to partner with psychology researchers to understand the effects of video games on student-athletes. Are there certain personality types who can better manage video game consumption? Are there certain thresholds, which if crossed, move gaming consumption from healthy to destructive? Finally, given the social bonding results, it would be helpful to examine social capital among teammates. Does video game expertise bring more/less social capital among one's teammates? Conversely, does not playing video games or having a low skill set influence social capital at all. These directions represent only a few of the avenues for future studies regarding the intersection of athletes and video games which will seemingly only widen in the future.

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