POKER FOR NOTHING AND CHIPS FOR FREE

AN EXPLORATORY INVESTIGATION OF ADULT FREEROLL POKER PLAYERS

by

LESLIE HOLLIDAY RING

(Under the Direction of Orion Mowbray)

ABSTRACT

Purpose. Traditionally poker games are offered and played for real money, with the stakes ranging from pocket change to millions of dollars. *Freeroll* poker games, on the other hand, are offered and played with play-money or "free" poker chips. For many people, gambling on real-money poker is a benign form of entertainment. However, for some it leads to gambling disorder (GD), which can jeopardize important relationships and vocational pursuits. For these reasons, addiction researchers have long focused on prevention by identifying risk factors for developing GD. The purpose of this study is to compare, confirm, and extend the knowledge about risk factors for GD—gleaned from real-money poker research—with a sample of freeroll poker players. **Method.** This quantitative study surveyed a convenience sample of (N=100) freeroll poker players. They were recruited through social media, using snowball sampling. Inclusion criteria: (a) having played freeroll poker at least once; (b) 18 years or older; and (c) participant consent. The survey investigated the relationship between a total of 31 identified risk factors for GD and the study's two dependent variables: (a) gambling disorder; and (b) poker player type (PPT). **Findings.** GD prevalence was 16%. Bivariate analysis: GD and PPT were statistically significant with each other. Further, (a) GD was significant with current age: and (b) PPT was significant with race, marital status, education, and family history of problem gambling. A

snapshot of some of the risk factors that have social work practice implications include: (a) 11% want to cut down on the amount of time they spend playing freeroll poker; (b) 42.00% spend real money to buy "free" poker chips; (d) 44.00% chase freeroll poker "losses"; (e) 46.00% said freeroll poker was a gateway to real-money poker; (f) 77.00% believe poker is primarily a game of skill, not luck; and (g) 77.00% drink alcohol while playing freeroll poker. PPT- having played freeroll poker, yet self-identifying as either: (a) *primarily* a freeroll poker player; or (b) *primarily* a real-money poker player. Both of the dependent variables were run against each other.

INDEX WORDS: Gambling, poker, freeroll poker, free-play, social gaming, freemium gaming

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DEDICATION

To William A. Hamby who inspires me, challenges me, and helps me see the simple.

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CHAPTER 1

INTRODUCTION

Gambling has occurred throughout most recorded history and cultures (Raylu & Oei, 2002). Its popularity has grown over the last several decades due to changing technological and legal landscapes in the United States, and around the globe (Ladouceur et al., 2004; Shaffer & Martin, 2011). It was estimated that "Americans spend more on gambling than on recorded music, theme parks, video games, spectator sports, and movie tickets combined" (Christiansen Capital Advisors, 2005, p. 23). The American Gaming Association (AGA) reported that in 2016 casino goers increased their spending by 1.1%, for a total of $38.96 billion. Further, the AGA enthused, "Our industry took major strides into becoming ever more mainstream. A presidential debate was held in Las Vegas…and a former casino owner was elected president" (p. 2). In the United States, gambling is so ubiquitous that only two states, Hawaii and Utah, do not offer some form of legalized gambling (Weinstock, Massura, & Petry, 2013).

For many people, gambling is a benign form of entertainment. In fact, most "individuals gamble for a limited time and incur acceptable losses and generally do not have any long-term problems related to gambling--a phenomenon often referred to as social or recreational gambling" (Subramaniam, Chong, Satghare, Browning, & Thomas, 2017, p. 689). However, for some people gambling leads to addiction, and with it great personal and financial losses in their life.

Gambling Disorder

At the beginning of the 20th century, addiction was believed to be the result of poor spiritual health and personal moral failings (McKenna, 1973). Many policymakers viewed gambling as a pernicious social ill, similar to the views of the leaders of the temperance movement on alcohol. The individual was labeled a *sad degenerate gambler* in speeches and in the press.

Over the last four decades, the general view of a substance addictions, such as alcohol addiction, has gradually shifted in many circles, from the realm of the sacred to the realm of modern medicine. While occurring, the shift has been slower for behavioral addictions, such as gambling addiction. This divergence is likely because conceptualizing and explaining a substance addiction, as a medical problem, is simpler when the *object of addiction* is tangible and consumed physically. Interestingly, a main driver in the shift with behavioral addictions, for researchers and practitioners at least, resulted from the growing awareness that they do, in fact, share many characteristics with substance addictions (Petry, Blanco, Jin, & Grant, 2014). Some of these include "preoccupation, tolerance…symptoms of withdrawal, loss of important social, occupational or recreational activities and continuation despite knowledge of its negative consequences" (Shead & Hodgins, 2009, p. 358). The American Psychiatric Association (APA), in a process that took decades, codified these characteristics, or symptoms of addictions, into diagnostic criteria.

The term *pathological gambling* was coined in 1980, and it was included in the APA's third edition of the Diagnostic and Statistical Manual of Mental Disorders (DMS-III) (APA, 1980; Reilly & Smith, 2013). Twenty years later, the term remained in the fourth edition (DSM-IV) defined as "a persistent and maladaptive gambling behavior that disrupts personal, family or

vocational pursuits" (APA, 2000, p. 671). Over a decade later, in the fifth edition (DSM-5), the term was changed to *gambling disorder* (GD) (APA, 2013). GD is defined as a "persistent and recurring problematic gambling behavior leading to clinically significant impairment…in a 12 month period" based on nine criteria or items (see Appendix A). A person at-risk for GD will likely endorse two or three items, while a person with GD will endorse four or more items.

This change of diagnostic label was a "welcome revision for many researchers and clinicians who have expressed concern that the label 'pathological' is a pejorative term that only reinforces the social stigma of being a problem gambler" (Reilly & Smith, 2013, p. 4). For the purpose of this study, the term problem gambling (PG) is used to denote general problem gambling behavior, which may be subclinical or clinical. The term GD is used to denote clinically significant gambling, and where applicable, it replaces the term "pathological gambling" in discussions of pre-DSM-5 research. Further, the phrase, "a person (or people) experiencing problem gambling" (PEPG) is used instead of "a problem gambler". This phrase is recommended by best practices and the social works ethics of respect and empowerment. This wording affirms that the focus is first on the person, not on the pathology (Barsky, 2018; "Disability Rights", 2014).

Epidemiological studies, in the general adult population, estimate the prevalence of at-risk GD to be between 2% and 6% (APA, 1994), and GD to be between 1.1% and 3.5% (Welte, Barnes, Wieczorek, & Tidwell, 2004a; Shaffer & Hall, 2001). A snapshot of recent research with regular poker players shows the at-risk for GD rate to be between 5% and 38%, and the GD rates to be between 8.9% and 19% (Hopley & Nicki, 2010; Matthews, Farnsworth, & Griffith, 2009).

At the social level, each PEPG may negatively affect four to 11 other people (Australian Productivity Commission, 1999). PEPG have been known to resort to fraud and embezzlement to

pay for gambling losses (Valentine & Hughes, 2008) and in some cases, these criminal actions forced their employers to declare bankruptcy (Somaiya, 2009). PEPG, themselves experience higher rates of bankruptcy due to the financial gambling losses, as well as from lost wages due to time spent away from work, gambling (Pavalko, 2001; Simmons, 2006). Overall, their families experience higher rates of divorce, domestic abuse, and child abuse (Gerstein et al., 1999; Larkin, 2007, p. 165).

At the individual level, physical and mental health problems are associated with GD. Physical health problem include: tachycardia, angina, cirrhosis of the liver, obesity, and more frequent emergency room visits than nongambling and recreational gamblers (Morasco et al., 2006). Mental health problems include mood and anxiety disorders (Raylu & Oei, 2002). Suicidal thoughts are more common in the home of a PEPG. A PEGP is six times more likely and their spouse is three times more likely to experience suicidal ideation (Hansen & Rossow, 2008). Sadly, between 12% and 24% of PEPG have attempted suicide (Nower & Blaszczynski, 2008; Nower, Gupta, Blaszczynski, & Derevensky, 2004; Oliveira, Silveira, & Silva, 2008). Despite these many deleterious effects, gambling has been called "the hidden addiction" (Ladouceur, 2004). The first issue investigated, or dependent variable, in this study is gambling disorder (see Table 1.1).

Poker

One form of gambling is a card game called poker. Poker experienced an exponential growth during the first dozen years of the 21st century, creating a multi-billion dollar industry (Fiedler & Wilcke, 2012; McCormack & Griffiths, 2012a). The Poker Players Alliance (2012) estimated there were 50 million poker players in the United States. While the popularity of poker has waned over the past five years, it remains one of the most popular forms of gambling.

The game of poker is a challenging game. It is a "competitive social gambling card game of skill and luck. The game includes a wide range of challenging strategic and interpersonal choices in a context of risk and uncertainty" (Khazaal et al., 2011, p.51). The role of skill or luck has long been a debate for this traditional gambling game. Traditional gambling is defined as hazarding something of value on the outcome of an event, when that outcome is uncertain (Shaffer & Martin, 2011). At its core, it has three key elements: (a) a *consideration*; (b) *chance*; and (c) a *prize*. The consideration is what the gambler pays and risk—usually money—to enter the gambling pool. The element of chance is the *role of luck* in the outcome of the event. The prize is awarded to the winner (Reber, 2012, p. 62). Some definitions include two additional requirements: (d) the primary purpose of the activity must be to win the prize; and (e) no take-backs, meaning once the consideration has been paid or wagered, it may not be rescinded (Elvy, 2010, ppt. 3). These traditional gambling elements apply to poker games.

Freeroll poker

Poker is played in "a variety of settings…most (78%) poker players reported playing with friends and family in the past year, 27% have played in a casino or tournament, 10% reported playing in an Internet cash game and 29% have played online, just for fun" (Miller & Washington, 2012, p. 424). These just-for-fun poker games are regularly played by tens millions of adults and even children online (Boorstin, 2013). These games are also played in-person at brick-and-mortar venues such as bars, restaurants, campus facilities, and community centers (Griffin & Osborne, 2009; Hardy, 2006). These just-for-fun or free games are also called *freerolls*. The term freeroll comes from a time when casinos used to entice new customers to come to their casino by offering a free roll of dimes to play in their slot machines. Freeroll poker players are the focus of this research study.

An inclusion criteria for the study respondents is that the respondents must have played freeroll poker at least once. The second issue investigated, or dependent variable, in this study is Poker Player Type (PPT). For PPT, the respondents will be split into two subgroups: (a) *real-money players*-those who self-report they *primarily* play in real-money games as often *or more* than they play in free games, or (b*) freeroll players*-those who self-report they *primarily* play in freeroll games.

Study Rational

Behavioral economics investigate predictable variables affecting the intellectual shortcuts people make, and how those shortcuts affect decision-making (Peterson, 2009). Behavioral economic research with cash substitutes, such as credit cards, demonstrate these intellectual shortcuts alter behavior. For example, shoppers routinely pay higher prices and spend more money when they are paying with a cash substitute, than when they are "parting with actual cash" (Feinberg, 1986; Runnemark, Hedman, & Xiao, 2015). This psychological variability or shortcut, in ascribing value to cash substitutes, can play a role in the addictive quality of certain forms of gambling. Poker players may be especially susceptible to this phenomenon because poker is not played with actual cash on the table; instead, the players trades in real-world money for clay coins called poker chips, a cash substitute (Lapuzi, & Griffiths, 2010).

Online poker players are further estranged from the real-world value and meaning of their financial expenditure. This is because they first must input their credit card number to the website, then purchase virtual poker chips. Repurchasing chips often occurs with only one or two clicks on their computer screen or mobile phone. Siler (2010) suggested, playing poker online and "winning hands may be cognitively satisfying and reinforcing learning, the occasional large loss, represented similarly as flashing pixels on a computer screen, does not carry proportional

cognitive, social and economic accounting impact for many" (p. 411). Therefore, some online poker players may be creating their own meaning and value for the flashing pixels or virtual poker chips. This may insulates them from the psychological distress of losing their financial expenditure and the prize. This study hypothesizes freeroll poker player may be susceptible to this phenomenon, in reverse.

Freeroll poker may be cognitively satisfying and reinforcing through the same mechanisms as real-money poker. These may include the rush and elation at skillfully winning a poker hand or the anger and despair at being out played and losing. If they lose, they must watch their poker chip stack diminish, or they may even be eliminated from the game all together. In light of people's tendency to psychologically divorce the true monetary value from poker chips, it is possible that freeroll players also create their own cognitive, social, and economic meaning or value for the poker chips. So, while real-money poker players may, at times, think about the chips as less valuable than their true monetary value, freeroll poker players may, at times, think about the chips as more valuable than their true monetary value. Therefore, whether the wins and losses are real, the reinforcing nature of the gambling-like game-play may be actively at work. If this hypothesis is true, freeroll poker players may be experiencing some similar psychological challenges and real-life problems as the real-money poker players experience.

Statement of Purpose

Traditionally poker games are offered and played for real money, with the stakes ranging from pocket change to millions of dollars. *Freeroll* poker games, on the other hand, are offered and played with play-money or "free" poker chips. For many people, gambling on real-money poker is a benign form of entertainment. However, for some it leads to gambling disorder (GD), which can jeopardize important relationships and vocational pursuits. For these reasons,

addiction researchers have long focused on prevention by identifying risk factors for developing GD. The purpose of this study is to compare, confirm, and extend the knowledge about risk factors for GD—gleaned from real-money poker research—with a sample of freeroll poker players. Overall, this study intends to capture a snapshot of risk factors related to freeroll poker player's sociodemographics characteristics, gambling history, behavioral addiction history, and substance addiction history. To that end this study has four goals: (a) to discover the prevalence of rate of gambling disorder in a sample of freeroll poker players; (b) to learn about the respondents' pathways to and through freeroll poker; (c) to identify, which if any, of the risk factors predict gambling disorder; and (d) to identify, which, if any, risk factors predict poker player type. Poker player type is defined as being primarily a real-money poker player or being primarily a freeroll poker player (see Chapter 2 for more on this).

The results of this study may be viewed, in part, as a needs assessment with freeroll poker players. It is intended to discover what problems, if any, freeroll poker players may be experiencing. If the study is successful, the results could inform helping-professionals and policymakers to identify gambling addiction-like problems, which may otherwise be overlooked, that are negatively affecting freeroll poker players. Also, the results of this brief snapshot could inform future research directions, lines of inquiry, and study construction.

Table 1.1
Full Study: Variables

Nu.	Study Variables
1	Gambling disorder
2	Poker player type

Independent Variables

Nu.	B. Socio-demographic	C. Gambling Hx	D. Behavioral Addiction Hx	E. Substance Addiction Hx
1	Gender	Age started gambling	Chase RMoney loss	Drink days /wk
2	Current age	Intro to gambling by	Chase free loss	Binge drink
3	Race	Beginner's luck	Want cut down free	Use alcohol w/playing
4	Marital status	Free gateway RMoney	Buy free chips	Use drug w/playing
5	Offspring	Fam hx.of gambling	Favorite game	Use tobacco
6	Education	Fam hx. of prob gambling	Motivation free play	
7	Employment	Fam hx. of substance addiction	Play with strangers	
8	Spirituality Imp.		Poker belief	
9	Veteran		Harmonious passion	
10			Obsessive passion	

Study Terms

Gambling - Traditional gambling has three key elements: (a) a consideration; (b) chance; and (c) a prize. The consideration is what the gambler risks or pays—usually money—to enter the gambling pool; (d) the primary purpose of the activity is to win the prize; and (e) no take-backs-once the consideration has been paid or *waged*, it may not be rescinded.

Freeroll poker - A poker game, in which, the players do not pay a consideration to play.

Real-money poker - A poker game, in which, the players do pay a consideration to play.

Chasing losses - After losing money gambling, an upset, or emotionally activated player may go on *tilt*. She may then: (a) continue playing; (b) buy back into the game; or (c) return to the game specifically to win back the money that was lost. This is a decision based on strong negative emotions such as: (a) anger; (b) embarrassment; or (c) fear. Chasing losses is a costly symptom of GD due to the likelihood of losing even more money, which may then trigger more chasing behavior.

On Tilt - Going on tilt, can happen anytime, but it usually happens after a player finds them self on the losing end of an exchange with another player, often after a *bad beat.* A bad beat occurs when a statistically unlikely or weaker hand beats a stronger hand. When this surprising loss occurs, the player's brain may interpret it as a threat and engages the limbic system's fight or flight response. This causes extreme psychological distress and reduced cognitive functioning. Continuing to play, after going on tilt, can be a costly symptom of GD due to the likelihood of losing even more money, which may then trigger chasing behavior.

Texas Hold'em Poker - The most popular variation of poker. It includes two *hole cards* dealt face down to each player, and at most five cards, known as the *community cards,* dealt face up, and shared by all the players.

Tournament Poker - Tournament poker has several key elements: (a) an entrance fee; (b) a payout structure; and (c) a timer. In tournament poker, all the players usually pay the same amount to play, and the *pari-mutual* payout system is announced before the game starts. Initially, the field is large, but at preset intervals, the stakes are raised, causing short-stacked players to be eliminated quickly.

Payout systems - There are two basic types of payout system. *Pari-mutuel* betting is a betting system where all the monies paid are pooled together and the prize is a percentage of that pool. For example, a poker tournament or a lottery where the prize pool grows proportionally to money paid into it. Conversely, in a *fixed-odds* betting system the player is betting against another individual, or bookmaker. The price of the bet and the odds of winning are announced before the game starts, by the bookmaker. For example in horse racing, if a gambler buys a $10 ticket, with fixed odds of 3:1, a winning gambler receives a $30.00 payout.

CHAPTER 2

LITERATURE REVIEW

This chapter begins with an overview of the history of poker. It is important to understand the events associated with this phenomenon to place this research into its cultural context. In other words, the various sociocultural events that drove poker's popularity are intrinsic to the phenomenology of the poker experience today. The remainder of the chapter covers various forms of free poker, the conceptual framework, and concludes with a brief literature review covering both of the dependent variables, and the each of 31 independent variables, or risk-factors.

The History of Poker

The earliest recorded form of poker is a French card game called *poque*; it was played in Europe over 400 years ago. Since then, it has evolved and captured the imagination of hundreds of millions of people. The humble birth of this game, and its popularity boom in North America are intrinsically linked to the nature of the game, and are thus germane to this study.

On July 4, 1803, President Thomas Jefferson took a gamble and purchased the Louisiana Territory from Napoleon Bonaparte for $15 million. Other than New Orleans, he knew very little about the land he was buying. It turned out to be a good bet, at about four cents an acre (McManus, 2009, p. 53). Because of President Jefferson's fortuitous investment, poker "became an American pastime as well as an American problem" (McManus, 2009, p. 53)

The earliest variants of poker were played in New Orleans. At the time the popular game was pejoratively known as, "the lying game". During the Civil War, soldiers on both sides of the

battlefield spent their idle time playing poker (Griffin & Osborne, 2009, p. 8) and after the war, the veterans took the game home with them, spreading it coast to coast.

Over time, new variations of poker were created. One popular game, 5-Card Stud, was played as early as the mid-19th century, followed by a similar game, 7-Card Stud, four decades later. Hold Me Darling, a variation of 7-Card Stud, was played in Corpus Christi, Texas as early as the 1920's (Griffin & Osborne, 2009, p. 8). It did not become popular until it arrived in Dallas, Texas around 1930 (Kadlec, 2010). Eventually, the name was shortened to Texas Hold'em or simply Hold'em (Hardy, 2006).

The growth in popularity of poker during the 20th century is credited to casino owner, Benny Binion. He orchestrated the "fabled poker game," played in 1949 between two poker heavyweights, Nick "the Greek" Dandolos and Johnny Moss. It was held in the open lobby of his Las Vegas casino, attracting an increasingly large crowd of spectators. It was said to have spanned five months, with the two participants only occasionally taking breaks to nap (Alvarez, 2002). The spectacle of that game is said to have inspired Binion's 1971 brainchild, The World Series of Poker (WSOP) (McManus, 2009). Although the first WSOP started with only six entrants, it would become a critical vehicle for the huge popularity growth of poker in the 2000's, known as the *poker boom* (McManus, 2009).

The Poker Boom

The game of poker experienced a period of meteoric growth at the beginning of the 21st century. In a short amount of time, it transformed from a fringe pastime to something one in 10 Americans had done (Schmidt, 2012). Poker scholars view the 1997 movie *Rounders* as the initial spark that ignited the North American "cultural explosion" of poker. This movie features Matt Damon and Edward Norton as professional poker players [anti-heroes of a sort] that con

their way into private games and were able to make a living playing poker, at least for a while (McCormack & Griffiths, 2012a). Professional poker players glamorized on the big screen resonated strongly with the cultural climate at the time.

Following this box-office success, and with the help of new technologies, poker quickly found its place on the small screen, as well. Miniaturized television cameras called "lipstick cameras" were first introduced in 2003 during the ESPN broadcast of the WSOP Main Event (McManus, 2009). These tiny cameras were placed strategically inside the poker tables so the viewers at home could see each player's hidden hole cards. This new technology transformed the experience of watching poker, from an "admittedly boring niche activity", to a spectator sport with play-by-play commentary by experts, allowing novices to learn the subtleties of the game (see Appendix B) (Kadlec, 2010).

The cultural element that caused the poker boom to reach its critical mass was an unlikely "Cinderella Story." In 2003, the aptly named Chris Moneymaker, an accountant and amateur poker player from Tennessee, bought into a $39 satellite tournament on PokerStars.com. With only his initial investment, he continued to win a series of tournaments that eventually landed him a seat in the $10,000 a person WSOP Main Event [known as the super bowl of poker]. He was one of 839 entrants, the largest field ever, at that time. Moneymaker won first place with the $2.5 million prize (Hardy, 2006), and instantly became both a celebrity and a poker folk hero. He was said to possess the essential skills necessary for a player to be successful, including: critical evaluative skills, mathematical skills, interpersonal skills, problem-solving skills, self-awareness, self-control, and analytical skills. The skills are celebrated in many circles and poker was even taught in some Harvard classrooms (Johnson, 2007).

Moneymaker's underdog story was celebrated across the media and around the world. It was an especially powerful narrative for college age young men, many of whom came to believe that they too could go from rags to poker riches. By the middle of 2005, Google reported its search engine had more than 15.5 million hits for the search term "poker" (Hardy, 2006). So influential was this story, and its accompanying cultural mythology, that it came to be known as the "Moneymaker Effect". The fervor with which it inspired people to begin playing poker was only heightened by the fact that Moneymaker had never played face-to-face poker before his mercurial rise to international celebrity (McManus, 2009, p. 322).

This fact is likely a direct cause of the popularity of online poker, as many young people came to see online poker as a path to their financial success. With each passing year, more and more people were inspired to learn the game, and tens of millions of dollars were spent marketing the dream of becoming a professional poker player. The 2006 WSOP Main Event represented the zenith for the poker boom. That year, Jamie Gold, an entertainment insider, won the event. He besting the other 8,772 entrants and captured the $12 million prize.

During the poker boom, poker became especially popular with adolescents. It was estimated that 2.9 million adolescents, gambled on card games on a weekly basis (Annenberg Adolescent Risk Communication Institute, 2008). Christiansen Capital Advisors (2005) reported, $60 billion dollars of player cash would move through online poker gambling sites, with the operators garnering at least $3 billion in commissions. The poker boom also spawned new opportunities for secondary sources of revenue within the poker industry: books and expert workshops, and television shows dedicated specifically to poker (McManus, 2009).

Starting with the poker boom, states and communities with legal casinos and card rooms saw increases in their tax revenue from these ventures. In states where gambling was illegal

however, entrepreneurs got creative in order to cash in. One way was to offer online and in-person free poker games, that in one way or another, skirted the laws prohibiting gambling. In this way, "hundreds of thousands of people are playing online poker for fun or the sense of competition with no financial payoff" (Reber, 2012, p. 69). These many free games were established by confounding one or more of the key elements of traditional gambling. As such, these "gray area games" are important to the philosophical and legal discussions surrounding the game of poker.

<div align="center">**Non-Commercial Free Poker**</div>

The following subsections will address several non-commercial gambling games for which there is considerable room for hair-splitting. These are charity, penny poker, freemium, and freeroll poker. From a research perspective, future conclusions regarding the legality of these grey are games will be drawn by lawmakers and will hinge upon the distinction made between them and traditional gambling.

Charity Poker

Charity poker has four of the five key elements of traditional gambling: (a) a consideration; (b) chance; (c) a prize; and (d) no take-backs. However, the primary motivation is not necessarily to win money. Therefore, charity poker is similar to commercial poker because the participants do pay real money to play and they do win a prize. In the harsh nonprofit economic landscape, "the popularity of poker [has] been harnessed by charities for fundraising purposes" (Griffin & Osborne, 2009, p. 8). In some states, charities are legally able to provide traditional commercial-type gambling on so-called "casino nights" through special regulatory dispensations. In these games, the participants do pay a consideration and the prize pool does

consist of considerations, minus the hefty percentage kept by charity (pari-mutuel betting) (Muhni, 1993).

However, in many states, there is no legal mechanism for charities to accept money if it is classified as a consideration. Interestingly, "Some state prosecutors have opted to turn a blind eye to tournaments run in bars and restaurants or for charitable purposes" (Griffin & Osborne, 2009, p. 8). If the monies collected are then pooled and divided among the winners (pari-mutuel betting), the game would certainly be considered a commercial game, and therefore illegal. One common way to side step antigambling laws is to reclassify the consideration as something else.

Therefore, in the charity gambling model, "The prize pool is not an accumulation of entry fees like in regular tournaments, but is rather a donation from the house, sponsorship fees or admission charged to spectators" (*Casino Cash Journey*, 2013, para. 6). So in effect, prizes up to and including cash are indeed awarded to the winners of the tournament, but as long as the prize is gifted *from* the sponsoring charity, and not paid *out* of the pool of donated money, the charity poker may fall well into the gray area, and not be considered commercial gambling. It is important to note that charity gambling is distinct from traditional gambling in another important way; the house keeps a much larger percent of the money or consideration than a casino. Therefore, it is argued that the primary purpose to play is not to win money, but to raise money for the hosting charity.

Penny Poker

Penny poker has four of the five key elements of traditional gambling: (a) a consideration; (b) chance; (c) a prize; and (d) no take-backs. Therefore, penny poker is similar to commercial gambling except that the stakes are very low. Many poker players report they learned to play with friends and family members in these micro-stakes or penny poker games.

"The overwhelmingly common poker session has always been a low-stakes game played among persons with either common interest in the organized legal card rooms or an informal gathering among friends in private homes, country clubs and social organizations. The vast majority of the tens of millions who play the game today do so in these distinctly benign settings" (Reber, 2012, p. 69). Learning the game of poker can be intimidating due to the many official rules as well as unofficial rules (Bradley & Schroeder, 2009). The unofficial rules change depending upon the settings and the players, therefore, many beginners want to learn from friends and family members in these low-stake settings.

Bearing out the veracity of this claim, a review of the Australian National Poker League's (ANPL) website revealed about 50 tournaments are offered per day around the country. Thirteen of the tournaments were listed as freerolls. The rest were listed as low-stakes tournaments, starting at $2.00 (ANPL, 2013). While there is no hard and fast rule, a recent research study described low-stakes games as falling between $1.00 and $11.00 (McCormack & Griffiths, 2012a, p. 248).

<div align="center">

Commercial Free Poker

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Freemium Gaming

Freemium gaming has three of the five key elements of traditional gambling: (a) a consideration; (b) chance; and (c) no take-backs. Freemium poker is similar to charity poker in that, if and when, monies are paid in, they are reclassified as something else for legal reasons. Research publications refer to these games by many names including: free-to-play games, casino-themed games, nonmonetary games, simulated gambling games, play-money games, play for fun games, as well as, social casino games (Derevensky & Gainsbury, 2016; Frahn, Delfabbro, & King, 2015; Gainsbury et al., 2016; King, Delfabbr, & Griffith, 2010; Kim, Wohl,

Salmon, Gupta, & Derevensky, 2015; Wohl, Salmon, Hollingshead, & Kim, 2017). This section is focused on freemium gaming websites that are not connected to a real-money gambling website.

Wohl et al. (2017) defined freemium gaming as follows: "A business model in, which users of the service (in this context, game) usually play for free but are encouraged to pay for extended game play; to compete with others/ status; to express themselves; to give virtual gifts; and to obtain virtual goods, which are valuable due to their scarcity" (p.3). Therefore, spending real money on in-app purchases may allow the player to continue playing, succeed in the game, or the purchase might serve some other function entirely.

Many of these games are hosted on social media platforms. Globally, social gaming was estimated to be a $1.2 billion industry in 2017 (Krejcik, 2018). The new player is given a set amount of free chips in a virtual bank account. If and when, the player loses all their initial free chips, they must spend real money to continue playing. However, the structure of freemium gaming is a more complicated than simply requiring the player to buy more chips. This is because the creators of these games make spending real money integral to enjoying the game and playing it successfully.

Cleghorn and Griffiths (2015) further explored what motivates individuals to purchase virtual assets, such as accessories for their avatar's wardrobe, in their study with people who play video games. They found the primary motivations were "exclusivity, function, social appeal, and collectability. It was found that virtual items enabled the gamer to express themselves, feel real satisfaction, and build lasting friendship" (p. 85). While some of these purchases improved game play, most appeared to be for social or aesthetic motivations.

For decades, people have been buying items to express their own style and personality for the real world. Now, that so many people are spending much of their life online, they want to express their individuality there, too. Worldwide, selling virtual assets is a $15 billion industry (Nayak, 2012). These are games played on their computers at home, but more often, they are played on applications on their mobile phones. King, Delfabbro and, Griffiths (2010) explored some possible risk factors for freemium poker and suggested it:

> (a) may make gambling more accessible and attractive to young people; (b)
>
> may promote factually incorrect information about gambling; (c) provide an
>
> easy escape from real world problems such as depression and social isolation;
>
> (d) create a gambling environment that easily facilitates peer pressures to
>
> gamble; (e) ease parental transmission of gambling attitudes and beliefs; and
>
> (f) make gambling more ubiquitous and socially acceptable. (p. 175)

There are many possible risks to freemium games, especially the *inflated payout rates* (discussed below). This is especially true for young people, because free games can be a foot-in-the-door for new players to start down the path of spending money on poker. While, the game may be free to download and start playing, it may quickly ask for a credit card number or other payment system. This is because payment is required for important in-game assets, in-game coins, and/or the ability to progress quickly though levels (Griffiths, Parke, Wood, & Rigbye, 2010).

Free Practice Versions of Real-Money Poker Games

Free practice or demo versions have two of the five key elements of traditional gambling: (a) chance; and (b) no take-backs. Free demo poker is similar to freemium poker in that the players are given free chips; however, there are differences. In freemium poker, game play is

often hampered or restricted all together if in-app purchases are not continually made. However, demo or practice poker games are connected to a real-money website and the free games are intended to attract new players to the paid version.

To make a profit, the casino or gambling website must pay out less than is paid in. The return-to-player (RTP) rate is the percentage of all monies taken in that is eventually paid back out to winning gamblers. Sévigny, Cloutier, Pelletier, and Ladouceur (2005) investigated the RTP for demo and practice games and found the RTP was above 100%. If it they were real-money games, the casino or website would be losing money. The issue of inflated payouts has been investigated and confirmed in many studies (Frahn et al., 2015; Bednarz, Delfabbro, & King, 2013; Dussault et al., 2017). These demo games give new players unrealistic expectations about their ability to win in the real-money versions. It also exploit players' belief in their own poker skills, and the role luck plays in the game.

Free In-person Poker Tournaments

Free in-person poker tournaments have three of the five key elements of traditional gambling: (a) chance; (b) a prize; and (c) no take-backs. These games are similar to the other free games in that no consideration is paid. However, spending real money to buy food and beverages from the establishment results in extra poker chips. Like freemium games, players who spend real money to get extra poker chips, are buying a big advantage over the players that do not spend real money to receive extra poker chips.

For-profit poker clubs, in brick-and-mortar locations, run free in-person poker tournaments. The host business hirer the poker club to promote, organize, provide needed equipment, and run the games in the hope of attracting new patrons and increasing food and alcohol sales. These facilities are often bars, restaurants, campus facilities, or community centers (Griffin & Osborne, 2009; Hardy, 2006). These games became popular after the poker boom, especially in communities where traditional gambling is illegal.

A notable study of in-person freeroll tournaments (from which the foundation of this study is derived) is a qualitative study by two master's students in the Department of Sociology at The University of Louisville, published in 2009. Bradley and Schroeder's thesis is entitled, *Because it's freeroll poker! A qualitative analysis of freeroll Texas Hold'em poker tournaments.* Their grounded theory study was conducted as covert participant observation of freerolls over a 5-month period, during the poker boom in 2006. They attended tournaments at four locations, participating in 37 tournaments for 106 total hours of observation. They discovered that between 75% and 90% of the poker players were males, generally ranging from late-20s to mid-30s (p. 410).

Bradley and Schroeder observed a wide range of personalities and styles. Two of the locations were light-hearted, and the rules were laxly enforced. Bad beats were taken with good humor. A bad beat occurs when a strong hands is beaten in a statistically improbable manner. In contrast, two other locations had very different atmospheres and bad beats resulted in yelling and emotional outbursts.

The winners received member points to be tallied at the end of each month with the point leaders being invited to bigger tournaments, where actual prizes could be won. They reported, "The intrinsic rewards associated with playing freeroll poker were much more prevalent

motivation among players than were earning...points" (p. 409). Overall, their research indicated that the promise of financial gain or future rewards was generally discounted, and thus, the primary motivation was not the same as real-money games. They reported finding three main motivations for playing in free tournaments: (a) status and prestige of being a regular player; (b) sociability among regular players; and (c) sharpening skills for "real poker games".

<div align="center">**Conceptual Framework**</div>

Risk Factors in Gambling Research

This research is conceptualized through a Risk and Resilience Framework (RRF). Lower and higher risk factors are identified based on correlations of and predictions for the likelihood of an outcome or future event. The literature shows this theory is dynamic and can be tailored for different populations and purposes (Anderson, Steen, & Stavropoulos, 2017). Fraser, Richman, and Galinsky (1999) conceptualized and labeled risks as either "nonspecific" or "specific" factors. Nonspecific factors include: experiences such as childhood abuse, poverty, and discrimination. The researchers identified these factors as nonspecific because they increase the risk for a wide range of deleterious conditions and outcomes. Specific risk factors, as their name implies, reflect clear cause and effect relationships, such as reducing access to birth control causes an increase in unwanted pregnancies.

The Substance Abuse and Mental Health Services Administration (SAMHSA, 2018) uses a RRF for their Strategic Prevention Framework. This was developed as a comprehensive guide to plan, implement, and evaluate prevention practices and programs. This framework outlines five risk factor categories: (a) variable risk factors (variable meaning changing over time), which includes peer group, income, childhood experiences, and employment status; (b) individual risk factors, which includes biological, genetic, and psychological factors; (c) relationship risk

factors, which includes parents and friends who engage in high risk behaviors; (d) community risk factors, which includes neighborhood violence and poverty; (e) and society risk factors, which includes racism, substandard education, and a lack of economic opportunities (Adams et al., 2018).

This current study will investigate two dependent variables and their relationship with 31 independent variables. These variables were identified in previous addiction research as the "usual suspects" and were evaluated through the lens of the RRF. Each variable will be coded dichotomously so that the respondents fall into a lower risk factor group or a higher risk factor group. When the literature is inconclusive, it will be noted.

Brief Literature Review of In-group and Outgroup Membership Studies

The following is a brief literature review of recent gambling research. These studies highlight the current research focus on, and uses for, in-group and outgroup membership analysis. General addiction and poker research reports that membership in high-risk subgroups is often an antecedent to GD. Therefore, many researchers are interested in the early detection of addiction problems in specific populations. Studies have explored potential antecedents to the onset of problematic and addictive behavior. Many looked at the etiology of GD in relation to their biological, genetic, psychological, and social issues as promoting or prohibiting risk, risk promoting factors reflect higher odds of dangerous and deleterious outcomes (Lupton, 1999).

Trivedi and Teichert (2017) explained that, "various antecedents of online gambling addiction need to be understood so as to facilitate a systematic process from consulting agencies to reduce the incidence of gambling addiction and to limit its consequences (p.184). By working with consulting agencies, these researcher hope to reduce the harm that results from GD. Welte, Barnes, Wieczorek, Tidwell, and Parker (2004b) reported, "In the current study, we will extend

previous research related to risk factors for pathological gambling by including more detailed information on gambling behaviors and by considering the contribution of multiple factors" (p.325). To better understand GD, research is examining gambling behaviors, both benign and harmful.

Cunha, de Sousa, & Relvas (2017) looked at group members. They reported "The aim was to identify the factors with higher odds of distinguishing the group of pathological gamblers from the groups of gamblers without a gambling problem...the use of these...groups is an asset because it facilitates analyzing the relevance of each of the investigated variables as a risk/protective factors" (p. 49). They found gender, education level, age, and mental health problems to be predictors of GD.

Some studies found GD and GD severity were predicted by the presence of personality factors and disorders. Ronzitti, Kraus, Hoff, Clerici, and Potenza (2018) found higher rates of GD predicted personality disorders. Interestingly, they also found that some of the relationship between GD severity and personality disorders is accounted for by increased suicidality. Myrseth, Pallesen, Molde, Johnsen, and Lorvik (2009) found that neuroticism, openness, impulsivity, and need for stimulus intensity were significant predictor variables for GD.

College students are often the subjects of gambling research (Wickwire, 2007). One study found high levels of sensation seeking and an external locus of control were positively correlated with GD (Shumlich, Perez, & Hoaken, 2017). Another investigated the prevalence rates of GD for Greek-affiliated male students compared with non-Greek-affiliated male students. Greek affiliated male students had higher rates of GD (Rockey D., Beason, Howington, Rockey C., & Gilbert, 2005). Another study investigated the prevalence rates of GD for male college athletes compared with female college athletes. Interestingly, GD was associated with female athletes

and not male athletes (Rockey, Beason, & Gilbert, 2002). A further study investigated and compared the prevalence rates of GD for young adults in college and young adults not in college. Those students not attending college had higher rates of GD (Barnes, Welte, Hoffman, & Tidwell, 2010).

One purpose of this research is to help create targeted interventions and treatments. This is because the "subtypes of gamblers, [are] each influenced by different factors, yet display similar behaviors. These subtypes will be essential in the management, treatment, and prognosis of pathological gambling" (Bonnaire, Bungener, & Varescon, 2009, p. 456). The better these subtypes of gamblers are understood, the more precise the interventions can become.

<div align="center">

Brief Literature Review of Study Variables

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This study has five sections: (a) dependent variables; (b) sociodemographics; (c) gambling history; (d) behavioral addiction history; and (e) substance addiction history. The first section covers the two study dependent variables. The first dependent variable is (the prevalence of) gambling disorder, which is standard in gambling research. The second dependent variable, poker player type, is unique to this study and is in-line with the in-group/outgroup research studies cited previously. The following four sections consist of 31 independent predictor variables, or risk factors, that have been identified in many general gambling and poker specific research (Barnes et al., 2010).

As is will be discussed in Chapter 3, many of the study questions were multiple-choice. Those responses were collapsed into dichotomous responses, as result of the following brief literature review (see Table 2.1). At the end of each brief literature review, the risk factor responses will be identified and coded as "lower risk for GD" or "higher risk for GD". In some

cases there are variations or the data is unclear. In those instances, the variable, which might represent less social support, is selected as the higher risk variable.

Dependent Variables

  Gambling disorder. GD results in negative outcomes in at least one area of and individual's life. In that way it "eventually overpowers the space in a person's self-identity and disturbs other activities in the person's regular lifestyle" (Back, Lee, & Stinchfield, 2011, p. 358). Epidemiological studies estimate the prevalence of past-year adult GD is between 1.1% and 3.5% (Welte et al., 2004b; Shaffer & Hall, 2001). GD is examined as a predictor factor for primarily being a real-money poker player. The lower risk factor was identified as no GD. The higher risk factor was identified as yes, GD.

  Poker player type. This study hypothesizes that among a sample of adults who have played freeroll poker; those who report they *primarily* play freeroll poker will have fewer risk factors, including GD, than those who report they play in real-money games as often *or more* than they play in freeroll games. While research into freeroll players is relatively recent, some studies have found free play to be a protective factor for GD. Free games may give gamblers and PEPG an outlet to play without losing money (Hollingshead, Kim, Wohl, & Derevensky, 2016; LaPlante & Shaffer, 2007). Other studies found it to be a risk factor for GD due to its easy accessibility, as well as its role as a gateway to real-money games (Frahn et al., 2015; Gainsbury et al., 2016; Kim et al., 2015). As will be discussed below, one of the underpinnings of this study is the idea that in general, as the players' involvement with gambling increase so does the risk of GD. The lower risk factor was identified as being primarily a freeroll poker player. The higher risk factor was identified as being primarily a real-money poker player.

Independent Variables

Sociodemographics

The second section is player sociodemographics. This covers certain genetic and social characteristics of the respondents. This subcategory includes nine variables: (a) gender; (b) current age; (c) race; (d) marital status; (3) offspring; (f) education; (h) employment; (h) spirituality importance; and (i) veteran.

Gender. General gambling and poker research indicates that males tend to report higher rates of GD and have an increased likelihood of in-group membership than their female counterparts (Barrault, Bonnaire, & Herrmann, 2017; Sacco, Torres, Cunningham-Williams, Woods, & Unick, 2011). In fact, gender may be the number one predictor variable of poker engagement (Shead, Hodgins, & Scharf, 2008). While both males and females report winning money is their primary motivation to gamble, there are certain differences. Males tend to prefer skill or action games where they can "gamble to beat other individuals or the house and often believe they can develop a system to do this" (Phillips & Wilson, 2009, p. 6).

Females tend to prefer luck or escape games and play for "social activity, excitement and to be around people" (Potenza, Maciejewski, & Mazure, 2006, p. 59). Some research indicates females tend to start gambling later in life (Nuske, Holdsworth, & Breen, 2016). Further, for females, who do develop GD it progresses much faster, telescoping, from onset to full expression, than it does in their male counterparts (Potenza et al., 2000). In contrast, Hing, Russell, Tolchard, and Nower (2016) found the risk factor by gender was not significant. While there are variations in the literature, the lower risk factor was identified as female. The higher risk factor was identified as male.

Current age. General gambling and poker research indicates that younger people tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who are older (Kundu et al., 2013; Sacco et al., 2011). "Adolescents are highly familiar and competent with digital technologies such as the Internet and mobile phones that makes them likely to be exposed to many kinds of gambling services" (King et al., 2010). This is especially noteworthy in light of research indicating gambling among emerging adults has doubled since 1999 (Wong, Zane, Saw, & Chan, 2012).

Further, Shead et al. (2008) found that age was a predictor variable for in-group member for poker playing gamblers, as opposed to being a nonpoker playing gambler. For older adults, factors such as isolation, declining health, and living on a fixed income were found to contribute to higher rates of GD (Levens, Dyer, Zubritsky, Knott, & Oslin, 2005). One demographic breakdown ,of Americans who said they played poker, reported that middle age players had lower rates of GD, while the younger players and older players had higher rates of GD. Their study found 35.00% were 21-39 years of age, 18.00% were 40-49 years of age; 15.00% were 50-64 years of age; and 32.00% were 65 years of age and older (Miller & Washington, 2012, p. 424). In contrast, Hing et al. (2016) found no difference in GD based on age. While there are variations in the literature, the lower risk factor was identified as over 34 years of age. The higher risk factor was identified as under 35 years of age.

Race. General gambling and poker research indicates that non-Caucasian people tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who are Caucasian (Sacco et al., 2011; Welte et al., 2004b). Other studies have found race disappears as a risk factor, after adjusting for other socio-demographic factors (Cunningham-Williams et al., 2005). Further, Storr, Lee, Derevensky, Ialongo, and Martins

(2012) found in their study with primarily African Americans, 21-22 year olds, who were living in disadvantaged neighborhoods, that they were ten times more likely to have GD than their more advantaged counterparts were. Further, Okuda et al. (2016), of their meta-analysis reported, "Overall, gambling activities appear to be frequent among ethnic and minority populations with rates ranging between 12.9 and 87%. Prevalence of GD have been reported as low as 0.3 % in Hispanics and as high as 58 % in South East Asian refugees" (p.2). While there are variations in the literature, the lower risk factor was identified as Caucasian. The higher risk factor was identified as non-Caucasian.

Marital status. General gambling and poker research indicates that unmarried people report higher rates of GD resulting in an increased likelihood of in-group membership than their married counterparts. Losing control is a defining characteristic of addiction, which negatively affects family and married life (Barone, 1999; Sacco et al., 2011). Many PEPG report lying to loved ones about their gambling 43.5% (Grant & Kim, 2001) leading to more relational instability (Raylu & Oei, 2002). Research shows divorce or bereavement of a spouse increases the likelihood of GD (SAMHSA, 2018). Subramaniam et al. (2017) conducted a study with gamblers 60 years or older and found that the odds of GD increased for those single or divorced/separated. These gamblers also reported they gambled to improve their emotional state and to compensate for their inability to continue performing activities, for which they were previously capable. However, Barrault et al. (2017) investigated GD and marital status with a sample of online poker players and it was not found to be a risk-inhibiting or risk-enhancing factor. While there are variations in the literature, the lower risk factor was identified married. The higher risk factor was identified as unmarried.

Offspring. A SAMHSA (2007) study reported being childfree was a risk factor for GD. The lower risk factor was identified as having a child. The higher risk factor was identified as childfree.

Education. General gambling and poker research indicates that people with at least a college degree report lower rates of GD resulting in an increased likelihood of in-group membership than their no-college degree counterparts. Eby et al. (2016) found in their sample of frequent nontreatment seeking gamblers that 8.4% reported school related problems. While not exclusively focused on a college degree, Kessler et al. (2008) reported in general that respondents with lower educational attainment were at a higher risk for GD. Hing, et al. (2016) found low education was a significant predictor of GD for males but not for females. While there are variations in the literature, the lower risk factor was identified as a college degree. The higher risk factor was identified as no college degree.

Employment status. General gambling and poker research indicates that people who are employed less than full-time tended to report higher rates of GD resulting in an increased likelihood of in-group membership than their less than full-time counterparts (Hing et al., 2016; Kessler et al., 2008). Parodi, Dosi, Zambon, Ferrari, and Muselli (2017) found unemployment was a predictor of GD. The lower risk factor was identified as full-time. The higher risk factor was identified as not full-time.

Spirituality importance. General gambling and poker research indicates that spirituality was a protective factor for GD resulting in an increased likelihood of in-group membership than their counterparts for whom spirituality was not important (Hodge, Andereck, & Montoya, 2007). However, Faigin, Pargament, and Abu-Raiya (2014) found that college students experiencing spiritual struggles were more at risk for GD. While there are variations in the

literature, the lower risk factor was identified as spirituality is important. The higher risk factor was identified as spirituality is not important.

Veteran. General gambling and poker research indicates that veterans tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who were not (Whiting et al., 2016). Further, Stefanovics, Potenza, and Pietrzak (2017) report 35.1% of United States veterans gambled at least occasionally with 2.2% at-risk for GD. The lower risk factor was identified as no, not a veteran. The higher risk factor was identified as yes, a veteran.

Gambling History

The third section covers the player gambling history. This explores thoughts, experiences, milestones, and memories. Some of these categories are self-explanatory, but others require a little more elaboration. This subcategory includes seven variables: (a) age started gambling; (b) introduced to gambling by; (c) beginner's luck; (d) free gateway to real-money; (e) family history of gambling; (f) family history of gambling disorder; and (g) family history of substance addiction.

Age started gambling. General gambling research and poker research indicates that GD is more likely for people who started gambling in their childhood and adolescence (Chambers & Potenza, 2003). However, Grant and Kim (2001) found in their study, people who start gambling later in life progress to addiction much quicker than people who start gambling earlier in life. Other researchers investigated age started gambling, but did not find it to be predictor of GD (Parodi et al., 2017; Wood, Griffiths, & Parke, 2007). While there are variations in the literature, the lower risk factor was identified as over 16. The higher risk factor was identified as under 17.

Introduced to gambling by. General gambling and poker research indicates that who introduces the individual to gambling may be a predictor of GD. Parodi et al. (2017) found that individuals introduced to gambling by either friend or family member increased the likelihood of GD as opposed to an acquaintance. Wood et al. (2007) found that 62.00% of their respondents reported they started playing poker because their friends were playing. While there are variations in the literature, the lower risk factor was identified being introduced to gambling by a family member or romantic partner. The higher risk factor was identified as being introduced to gambling by a friend

Beginner's luck. General gambling research indicates that PEPG tend to have irrational beliefs about beginner's luck (Källmén, Andersson, & Andren, 2008; Toneatto, 1999; Sévigny et al., 2005). People who experienced beginner's luck tend to report higher rates of GD, resulting in an increased likelihood of in-group membership than their counterparts who did not. Research found that initial "big wins" can cause strong feelings of pleasure leading the player to unconsciously feel the only way to feel that way again is by winning big again (Bloch, 1984). The lower risk factor was identified as no; I did not experience beginner's luck. The higher risk factor was identified as yes; I did experience beginner's luck.

Free gateway to real-money. General gambling research reflects a progression of low stake and low risk gambling involvement into higher risk and higher stake involvement (Nower & Blaszczynski, 2017). Some research indicates that people who started with freeroll gambling tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who did not (Dussault et al., 2017; Fong, 2005; Gainsbury, Hing, Delfabbro, Dewar, & King, 2015; Hollingshead, et al., 2016; King, Delfabbro, & Griffiths, 2009; LaPlante & Shaffer, 2007).

Some research indicates that new and easily accessible poker websites might be a "gateway" to other forms of gambling. "Lower stakes allows for longer duration of play and higher intensity of gambling. The lower stakes on these sites also help to lure amateurs to have a try and to learn the game before they play for higher stakes. Online gambling venues also offer a free trial or a demo period where players can learn to play using "play money'" (Hui, 2009, p. 14). Wood et al. (2007) reported over 10% of their sample started playing poker because they were offered entry into free games by spam email or popup. While there are variations in the literature, the lower risk factor was identified as no; freeroll poker was not a gateway to real-money poker games. The higher risk factor was identified as yes; freeroll poker was a gateway to real-money poker games.

Family history of gambling. General gambling and poker research indicates that people who saw their family members gambling as a child tended to report higher rates of GD, resulting in an increased likelihood of in-group membership than their counterparts who did not (Magoon & Ingersoll, 2006). Further, Subramaniam et al. (2017) completed a qualitative study with older adults and found that initiation into gambling at an early age, and by a family member increased the likelihood of GD. The lower risk factor was identified as no; I do not have a family history of gambling. The higher risk factor was identified as yes; I do have a family history of gambling.

Family history gambling disorder (GD). General gambling and poker research indicates that people who reported a family history of GD tended to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who did not. This was found to be especially true for if that family members was a parent (Magoon & Ingersoll, 2006; Vachon, Vitaro, Wanner, & Tremblay, 2004). Further, Grant, Leppink, Redden, Odlaug, and Chamberlain (2015) reported a genetic component to GD. The lower risk factor was

identified as no; I do not have a family history of GD. The higher risk factor was identified as yes; I do have a family history of GD.

Family history of substance abuse (SA). General gambling and poker research indicates that people who reported a family history of SA tended to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who did not (Ellingson, Slutske, & Martin, 2010; Grant & Kim, 2001). The lower risk factor was identified as no; I do not have a family history of SA. The higher risk factor was identified as yes; I do have a family history of family SA.

Behavioral Addiction History

The fourth section covers the player behavioral addiction history. This covers experiences, beliefs, behaviors, and especially their engagement with gambling. This subcategory includes ten variables: (a) chase real-money loss; (b) chase free loss; (c) want cut down free; (d) buy free chips; (e) favorite game; (f) motivation for free play; (g) play poker with; (h) poker belief: skill; and (i) harmonious passion; and (j) obsessive passion.

Chasing real money loss. General gambling research indicates that PEPG reported they continued gambling to recover losses and "returned another day to get even" (Grant & Kim, 2001, p. 959). In Lesieur's (1977) seminal work on gambling he wrote, "At a psychological level, loss chasing is complex and frequently involves conflicted motivational states, pitting the desire (or need) to keep playing against the dread of suffering even greater losses" (p. 402). Chasing losses is a central feature of GD in general (McBride & Derevensky, 2009; Sacco et al., 2011). Campbell-Meiklejohn et al. (2011) found serotonin activity appears to play a role in sustaining loss-chasing behavior, whereas dopamine activity appeared to regulate the losses not chased or surrendered. Bibby and Ross (2017) found GD or non-GD status did not predict

chasing behavior, but alexithymia did predict chasing behavior. While there are variations in the literature, the lower risk factor was identified as no; I do not chase real money losses. The higher risk factor was identified as yes; I do chase real money losses.

Chasing free loss. General gambling research indicates that PEPG report chasing losses (Grant & Kim, 2001, p. 959). Subramaniam et al. (2017) described social or recreational gambling in term of limited time and acceptable losses. Players who chase free losses may be characterized by continuing to play beyond their anticipated timeframe or returning to "get even". Downs, (2008) found evidence that children as young as 13 years old may be chasing their virtual losses.

Bradley and Schroeder (2009) reported in their qualitative study that freeroll players responded to bad beats by berating others, shouting expletives, kicking over chairs, slamming fists on the table, and "storming off", while continuing to yell at the other players. They also responded with their intention to play again saying, "Oh well, I get another $5,000 chips in an hour.' or 'I'll get you back next hand/game" (p. 418). The lower risk factor was identified as no; I do not chase free losses. The higher risk factor was identified as yes; I do chase free losses.

Want to cut down on freeroll poker. General gambling and poker research indicates that people who want to cut down on how much time they spend gambling tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who do not. Studies have demonstrated that spending a lot of time playing poker may be the number one predictor of a GD. Hopley and Nicki (2010) stated that online poker players might play up to 70 hours a week (p. 179).

Furthermore, Griffiths et al. (2010) suggested "a new breed of problem gambler…is losing time but winning money" (p. 87). Wood et al. (2007) found there was a significant

association between frequency of online poker play and GD. With the amount of time spent

gambling, it is likely the gambler may withdraw from other activities. Eby et al. (2016) found,

"Half of participants (49.1%) discussed behavioral withdrawal due to gambling, which included

withdrawal from work (44.3%), relationships (24.5%), school (15.1%), and personal (6.6%)

activities" (p. 604). This study is unique because GD is often established in terms of financial

losses. This may not be the case for this study of freeroll poker players, but it is possible that

freeroll players are losing too much *time* playing. The lower risk factor was identified as no; I do

not want to cut down. The higher risk factor was identified as yes; I do want to cut down.

Buy free chips (use real money to chips for free games). General gambling and poker

research indicates that people who are more involved tend to report higher rates of GD resulting

in an increased likelihood of in-group membership than their counterparts who are not. The

National Gambling Impact Study Commission's (Gerstein et al., 1999) meta-analysis of

gambling research calculated the respondents' gambling expenditures and found that non-GD

gamblers spent less gambling than PEPG. Parodi et al. (2017) found players with higher

expenditures were at higher risk for GD. Wood et al. (2007) found spending more money than

the player had intended was significantly associated with GD among their sample of online poker

players.

While freeroll poker does not cost real money per se, most online providers market extra

chips or special events that do cost real money. For brick-and-mortar freeroll games, buying food

or drinks will often be rewarded with extra chips. This gives those players an advantage over

their peers that did not spend real money to secure extra chips. As discussed previously,

freemium games in-app purchasing is a $15 billion industry, worldwide (Nayak, 2012). The

lower risk factor was identified as no; I have not spent real money to buy chips for free poker

games. The higher risk factor was identified as yes; I have spent real money to buy chips for freeroll poker games.

Favorite game. General gambling and poker research indicates that people who play poker tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who prefer other games. In ludology, the study of games, research has focused on some categories of games, known as objects of addiction, as being more or less addictive than others. For example, the lottery may be more addictive due to the entrapment factor. Most lottery players play the same numbers each week. Therefore, they feel they cannot skip a week because their number might "hit" (Rogers, 1998). Grant and Kim (2001) reported the most popular types of gambling activities were slot machines (65%), cards (33%), and blackjack (26%).

It has also been suggested that the types of gambling that provide instant feedback are more addictive than other forms of gambling. For example, the Illinois Institute for Addiction Recovery referred to video poker as the ''crack cocaine of gambling," and stated that the immediate gratification available with video poker shortens the length of time necessary for chronic gambling addiction to develop (Welte, et al. 2004b).

In contrast, McCormack, Shorter, and Griffiths (2013) found roulette, poker, horse race betting, sports betting, spread betting, and slot machines were associated with GD, but not poker. Hing et al. (2016) found skill-based games were risk factors for males and escape type games were risk factors for females. While there are variations in the literature, the lower risk factor was identified as favorite game-other. The higher risk factor was identified as favorite game-poker.

Motivation for free play. This study hypothesizes that people whose primary motivation for playing freeroll games is to practice for later real-money games will report higher rates of GD resulting in an increased likelihood of in-group membership than their more socially motivated counterparts. "They can practice in their own time and from the comfort of their own home. Therefore, a complicated or difficult game may not deter people from gambling on the internet because they can practice this game until they are confident enough to bet with real money" (McCormack & Griffiths, 2012b, p. 41).

Frahn et al. (2015) studied exposure to free-play modes as a risk factor for GD, in a sample of Australian college student. They found that those who played a slot machine simulation with an inflected return-to-player (RTP) bet larger sums of money. "Therefore, this study suggests that gambling activities with misleading free play or demo modes may tend to engage in riskier gambling behavior than gambling activities without demo modes" (p. 1539). These inflated free games may purposefully encourage the player to think they could win big if they started playing on the real-money poker websites, or in a brick-and-mortar casino.

Hing et al. (2016) found social reasons and playing to win money were not risk factors for GD. Instead, they found playing to escape boredom and loneness were risks for GD. Conversely, Shinaprayoon et al. (2017) found the motivation to socialize was a risk factor for GD. While there are variations in the literature, the lower risk factor was identified as to socialize. The higher risk factor was identified as to practice for later real-money games.

Play poker with. General gambling and poker research indicates that people who play with strangers tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who play with friends and family (McBride & Derevensky, 2009). Further research shows that the less connected an individual is to the other players, the

more likely the occurrence of GD. Further, playing face-to-face may have protective social qualities factors (Back et al., 2011, p. 368). The lower risk factor was identified as, play with friends and/or family. The higher risk factor was identified as, play with strangers.

  Poker belief. General gambling research indicates that PEPG tend to have irrational beliefs about the roles skill and luck players in poker (Källmén, et al., 2008; Ladouceur, Sylvain, Boutin, & Doucet, 2002; Sévigny et al., 2005). Goodie (2005) reported PEPG "processed information about confidence and control differently from non-problem gamblers" (p. 481). Wood et al. (2007) found the belief that poker is equally a game of luck and skill was significantly associated with GD.

  Zhou et al. (2012) found belief in luck or in skill was dependent upon the type of gambling activity so that "for football lottery, Chinese lottery, and baccarat, it was not belief in skill but rather belief in luck that was a positive significant predictor of gambling frequency. Only for slot machines and stud poker did belief in skill significantly predict gambling frequency" (p.379). Further, Mitrovic and Brown (2009) discovered certain taxons of gamblers appeared or disappeared based on whether the luck/skill variable was included in the analysis. Overall, the question of luck or skill rests on the human agent's ability to affect the win/loss rate, otherwise known as flexibility or skill. While there are variations in the literature, the lower risk factor was identified as believing poker is primarily a game of luck. The higher risk factor was identified as believing poker is primarily a game of skill.

  Harmonious Passion. General gambling and poker research indicates that people who continue to play despite feelings of guilt and shame have higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who report feeling neutral or positive about their play (Locke, Shilkret, Everett, & Petry, 2012). Eby et al. (2016) found in

their sample of frequent non-treatment seeking gamblers that 38.0% reported a loss in self-esteem and feelings of shame.

Most activities can be done to excess or can be done in ways that are harmful. There is some question in the published gambling research surrounding the concept of high levels of involvement. One person may spend much of their time and money playing golf, but not be considered "pathological". Similarly, a parent may spend much of their time and money attending to a healthy adult child, but not be considered "pathological". Meanwhile, a professional poker player who spends 60 hours a week playing poker may be considered "pathological." While a Wall Street investor who spends the same amount of time effectively "gambling" on stock trades may be considered dedicated.

Because of these and similar grey areas, the Gambling Passion Scale (GPS) was developed (Rousseau, Vallerand, Ratelle, Mageau, & Provencher, 2002). The GPS is a 14-item self-report screen consisting of a 1-7 Likert Scale. It assesses two subtypes of passion: (a) harmonious passion; and (b) obsessive passion. The researchers defined passion as:

> [A] strong inclination toward an activity that we like, find important, and in which we invest time…Obsessive passion refers to an internal pressure that forces an individual to engage in the activity. Harmonious passion, on the other hand, refers to an internal force that leads an individual to choose freely to engage in an activity. While obsessive passion has been shown in some circumstances to lead to negative psychological and physical consequences, harmonious passion generally leads to positive psychological and physical consequences. (p. 45)

This screen investigates whether a particular activity is in harmony or is contrary (obsessive) to the individual's own values and ethics. Furthermore, the screen can identify if the

activity is driven by intrinsic motivations (harmonious) or extrinsic motivations (obsessive) (Rousseau et al., 2002). The lower risk factor was identified as falling above the mean cut off. The higher risk factor was identified as falling below the mean cut off (see Chapter 3 for more on this).

Obsessive Passion. (See harmonious passion for more details.) The lower risk factor was identified as falling below the mean cut off. The higher risk factor was identified as falling above the mean cut off.

Substance Addiction History

The fifth section is the player substance addiction history. This covers specific thoughts, experiences, and behaviors related to the respondents' history of substance addiction. This subcategory includes five variables: (a) drink days per week; (b) binge drink; (c) use alcohol while playing; (d) use drugs while playing; and (e) use tobacco.

Drink days per week. General gambling and poker research indicates that people who drink more often tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who drink less (Parodi et al., 2017; Stewart & Kushner, 2005). The problem drinking rate for the general public is 6.8% (SAMHSA, 2015). Further, people who drink more days a week tend to report higher rates of GD (SAMHSA, 2014). The lower risk factor was identified as drinking three or fewer days per week. The higher risk factor was identified as drinking four or more days per week.

Binge drinking. General gambling and poker research indicates that people who have more drinks per occasion tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who drink less. The National Survey on Drug Use and Health found the rate of Alcohol Use Disorder (AUD) in the United States for adults to be

6.5% (SAMHSA, 2015). A male binge drinker consumes five or more drinks per occasion and a female binge drinker consumes four or more drinks per occasion (Barnes et al., 2010; SAMHSA, 2018; Welte et al., 2004a). The lower risk factor was identified as no; I do not binge drink. The risk factor was identified to be a yes; I do binge drink.

Use alcohol while playing. General gambling and poker research indicates that people who drink alcohol while playing poker tend to report higher rates of GD resulting in an increased likelihood of in-group membership than those who do not (McBride & Derevensky, 2009). Conversely, Welte et al. (2004a) investigated the relationship between drinking while playing and they did not find a relationship in their sample. While there are variations in the literature, the lower risk factor was identified no; I do not drink alcohol while playing poker. The higher risk factor was identified as yes; I do drink alcohol while playing poker.

Use drugs while playing. General gambling and poker research indicates that people who use drugs while playing poker tend to report higher rates of GD resulting in an increased likelihood of in-group membership than their counterparts who do not (McBride & Derevensky, 2009). Further, a research study with professional poker players found 80% have used drugs while playing including: "marijuana, cocaine, amphetamines, valium, and other prescription medications, as well as substances including caffeine, energy drinks and guarana to get an edge over their opponents...The use of these substances could allow poker players to stay awake longer, as well as focus and concentrate better, which would be a competitive advantage" ("Nova Southeastern University", 2010, para. 1).

Phil Hellmuth, 14-time WSOP bracelet winner, reported drugs use was common for poker players. He said, "It's something like speed. I'm talking about a really heavy drug. Many poker players have taken this drug in the past 10 years. Almost all players who took this drug has

won 1 or 2 million dollars over a 6-8 month period. But then the effect of the drug stopped working, which left many of them with a drug addiction" ("Hellmuth", 2012). Rennert et al., (2014) found the rate of GD to be 10.30% in their sample of substance abusers. The lower risk factor was identified as no; I do not use drugs while playing. The higher risk factor was identified as yes; I do use drugs while playing poker.

Use tobacco. General gambling and poker research indicates that people who use tobacco tend to report higher rates of GD and have an increased likelihood of in-group membership than their counterparts who do not (Luczak et al., 2017; Spunt, Dupont, Lesieur, Liberty, & Hunt, 1998). Nicotine use has especially been associated with at-risk for GD for female gamblers (Pilver, Libby, Hoff, & Potenza, 2013). The lower risk factor was identified as no; I do not use tobacco. The higher risk factor was identified as yes; I do use tobacco.

Table 2.1
Player Characteristics and Response Recodes

A. Dependent Variables				*LoRi= Lower Risk HiRi=Higher Risk		
Study Variables	Original Responses	N	%	Recoded Responses	N	%
Gambling disorder	No	84	84			
	Lower risk: Subtotal	84	84			
	Restless when cut back	9	9			
	Hide from fam	6	6	LoRi*: No	84	84
	Financial trouble	7	7	HiRi: Yes	16	16
	Higher risk: Subtotal	16**	16	Total	100	100
	**a yes to any 1=GD					
Poker player type	Freeroll player	51	51			
	Lower risk: Subtotal	51	51			
	Free & Rmny equally	20	20	LoRi: Free	51	51
	Real money player	29	29	HiRi: Real-money	49	49
	Higher risk: Subtotal	49	49	Total	100	100

Independent Variables

B. Sociodemographics	Original Responses	N	%	Recoded Responses	N	%
Gender	Female	25	25			
	Other	0	0			
	Lower risk: Subtotal	25	25			
				LoRi: Female	25	25
	Male	75	75	HiRi: Male	75	75
	Higher risk: Subtotal	75	75	Total	100	100
Current age	74-65	5	5			
	64-55	9	9			
	54-45	18	18			
	44-35	38	38			
	Lower risk: Subtotal	70	70			
	34-25	25	25			
	24-21	3	3	LoRi: Over 34	70	70
	20-18	2	2	HiRi: Under 35	30	30
	Higher risk: Subtotal	30	30	Total	100	100
Race	Caucasian	72	72			
	Lower risk: Subtotal	72	72			
	Asian	1	1			
	African American	16	16			
	Hispanic	3	3			
	Native American	3	3	LoRi: Caucasian	72	72
	Other	5	5	HiRi: Non-Cauc	28	28
	Higher risk: Subtotal	28	28	Total	100	100

B. Sociodemo con't	Original Responses	N	%	Recoded Responses	N	%
	Married	47	47			
	Lower risk: Subtotal	47	47			
	Single	42	42			
	Divorced	10	10	LoRi: Married	47	47
	Widowed	1	1	HiRi: Unmarried	53	53
	Higher risk: Subtotal	53	53	Total	100	100
Offspring	Minor child full-time	27	27.55			
	Minor child part-time	9	9.18			
	Adult child	16	16.33			
	Lower risk: Subtotal	52	53.96			
				LoRi: Child	52	53.96
	No children	46	46.04	HiRi: Childfree	46	46.04
	Higher risk: Subtotal	46	46.04	Total	98	100
Education	Ph.D., MD., or JD	8	8			
	Master's degree	26	26			
	College degree	42	42			
	Lower risk: Subtotal	76	76			
	Some college	17	17			
	High school degree	5	50	LoRi: Coll degree	76	76
	Some high school	2	2	HiRi: No coll degree	24	24
	Higher risk: Subtotal	24	24	Total	100	100
Employment	Employed full-time	67	67.68			
	Lower risk: Subtotal	67	67.68			
	Retired	11	11.11			
	Underemployed	4	4.04			
	Unemployed	8	8.08	LoRi: Full-time	67	67.68
	Student	9	9.09	HiRi: Not full-time	32	32.32
	Higher risk: Subtotal	32	32.32	Total	99	100
Spirituality importance	Very important	33	33			
	Somewhat important	30	30			
	Lower risk: Subtotal	63	63			
				LoRi: Yes	63	63
	Not important	37	37	HiRi: No	37	37
	Higher risk: Subtotal	37	37	Total	100	100
Veteran	No	85	85	LoRi: No	85	85
	Yes	15	15	HiRi: Yes	15	15
				Total	100	100

C. Gambling History	Original Responses	N	%	Recoded Responses	N	%
Age started gambling	I've never gambled	1	1			
	55+	2	2			
	35-44	6	6			
	25-34	9	9			
	21-24	19	19			
	<u>17-20</u>	<u>23</u>	<u>23</u>			
	Lower risk: Subtotal	60	60			
	13-16	19	19			
	9-15	12	12	LoRi: Over 16	60	60
	<u>0-8</u>	<u>9</u>	<u>9</u>	<u>HiRi: Under 17</u>	<u>40</u>	<u>40</u>
	Higher risk: Subtotal	40	40	Total	100	100
Introduced to gambling by	Grandparent	10	10			
	Parent	22	22			
	Sibling	5	5			
	Other relative	3	3			
	<u>Romantic partner</u>	<u>7</u>	<u>7</u>			
	Lower risk: Subtotal	50	50			
				LoRi: Family	50	50
	<u>Friend</u>	<u>50</u>	<u>50</u>	<u>HiRi: Friend</u>	<u>50</u>	<u>50</u>
	Higher risk: Subtotal	50	50	Total	100	100
Beginner's luck	No	13	13.41			
	<u>I was about average</u>	<u>41</u>	<u>42.26</u>			
	Lower risk: Subtotal	54	55.77			
				LoRi: No	54	55.77
	<u>Yes</u>	<u>43</u>	<u>44.33</u>	<u>HiRi: Yes</u>	<u>43</u>	<u>44.33</u>
	Higher risk: Subtotal	43	44.33	Total	97	100
Free gateway to Real-money	No	54	54	LoRi: No	54	54
	Yes	46	46	<u>HiRi: Yes</u>	<u>46</u>	<u>46</u>
				Total	100	100
Fam Hx gambling	<u>None</u>	<u>47</u>	<u>47</u>			
	Lower risk: Subtotal	47	47			
	At least one	16	16			
	A few	24	24			
	About half	7	7	LoRi: No	47	47
	<u>Almost all</u>	<u>6</u>	<u>6</u>	<u>HiRi: Yes</u>	<u>53</u>	<u>53</u>
	Higher risk: Subtotal	53	100	Total	100	100
Fam Hx GD	<u>None</u>	<u>78</u>	<u>78</u>			
	Lower risk: Subtotal	78	78			
	At least one	16	16			
	A few	4	4			
	About half	0	0	LoRi: No	78	78
	<u>Almost all</u>	<u>2</u>	<u>2</u>	<u>HiRi: Yes</u>	<u>22</u>	<u>22</u>
	Higher risk: Subtotal	22	22	Total	100	100
Fam Hx SA	<u>None</u>	<u>45</u>	<u>45</u>			
	Lower risk: Subtotal	45	45			
	At least one	27	27			
	A few	23	23			
	About half	4	4	LoRi: No	45	45
	<u>Almost all</u>	<u>1</u>	<u>1</u>	<u>HiRi: Yes</u>	<u>55</u>	<u>55</u>
	Higher risk: Subtotal	55	55	Total	100	100

D. Behavioral Addiction	Original Responses	N	%	Recoded Responses		N	%
Chase Rmny losses	No	28	28				
	Lower risk: Subtotal	28	28				
	Rarely	28	28				
	Sometimes	42	42	LoRi: No		28	28
	Often	2	2	HiRi: Yes		72	72
	Higher risk: Subtotal	72	72		Total	100	100
Chase free losses	No	50	50				
	Lower risk: Subtotal	50	50				
	Rarely	28	28				
	Sometimes	42	42	LoRi: No		50	50
	Often	2	2	HiRi: Yes		50	50
	Higher risk: Subtotal	50	50		Total	100	100
Want to cut down free	No	89	89	LoRi: No		89	89
	Yes	11	11	HiRi: Yes		11	11
					Total	100	100
Buy free chips	No	58	58	LoRi: No		58	58
	Yes	42	42	HiRi: Yes		42	42
					Total	100	100
Favorite game	Bar games	3	3				
	Dice	1	1				
	Bingo	1	1				
	Lottery	7	7				
	Slots	1	1				
	Sports betting	4	4				
	Bet on games I play	3	3				
	Lower risk: Subtotal	20	20				
				LoRi: Other		20	20
	Poker	80	80	HiRi: Poker		80	80
	Higher risk: Subtotal	80	80		Total	100	100
Motivation free play	Socialize	28	28				
	Social status	3	3				
	None of these	21	21				
	Lower risk: Subtotal	52	52				
				LoRi: Socialize		52	52
	Pract for Rmny game	48	48	HiRi: Pract Rmny		48	48
	Higher risk: Subtotal	48	48		Total	100	100
Play poker with	Friends & family	48	48				
	Lower risk: Subtotal	48	48				
	Acquaintances	29	29	LoRi: Friend & fam		48	48
	Strangers	23	23	HiRi: Strangers		52	52
	Higher risk: Subtotal	52	52		Total	100	100
Poker belief	Luck game	23	23	LoRi: Luck		23	23
	Skill game	77	77	HiRi: Skill		77	77
					Total	100	100
HarmoniousPass	Above mean	51	51	LoRi: Above		51	51
	Below mean	49	49	HiRi: Below		49	49
					Total	100	100
ObsessivePass	Below mean	67	67	LoRi: Below		67	67
	Above mean	33	33	HiRi: Above		33	33
					Total	100	100

E. Substance Addiction	Original Responses	N	%	Recoded Responses		N	%
Drinks per week	Never	15	15				
	Once a month	16	16				
	Once a week	29	29				
	2-3x's a week	23	23				
	Lower risk: Subtotal	83	100				
				LoRi: 0-3x's a wk		83	83
	4x's+ a week	17	17	HiRi: 4x's+ a wk		17	17
	Higher risk: Subtotal	17	17		Total	100	100
Binge drink	0 M&F	16	16				
	1-2 M&F	44	44				
	3-4 males	24	24				
	Lower risk: Subtotal	84	84				
	3-4 females	4	4				
	5-6 M&F	9	9	LoRi: No		84	8
	7-10 M&F	3	3	HiRi: Yes		16	16
	Higher risk: Subtotal	16	16		Total	100	100
Use alcohol w/ Playing	Never	23	23.23				
	Lower risk: Subtotal	23	23.23				
	Sometimes	48	48.48	LoRi: No		23	23.23
	Most of the time	23	23.23	HiRi: Yes		76	76.77
	Higher risk: Subtotal	76	76.77		Total	99	100
Use drugs w/ Playing	Never	80	80				
	Lower risk: Subtotal	80	80				
	Sometimes	15	15	LoRi: No		80	80
	Most of the time	5	5	HiRi: Yes		20	20
	Higher risk: Subtotal	100	100		Total	100	100
Use tobacco	No	59	59	LoRi: No		59	59
	Yes	41	41	HiRi: Yes		41	41
			100		Total	100	100

CHAPTER 3

METHOD

The research method for this study on freeroll poker is outlined below. This chapter will first discuss the methodology of the pilot study. The remainder of the chapter will focus on the methodology of the full study.

Pilot Study Method

Pilot Study Rational

Due to the paucity of research with freeroll poker players a pilot study was conducted to increase the validity and reliability of the full study. Special attention was given to the selection of the established screening instruments. This is because many common screens use financial problems as an important dimension to measuring GD and some participants of this sample may never have gambled with real money. Further, many questions were written specifically for this population. The results were scrutinized and some questions were rewritten to reduce ambiguity for the full study.

Pilot Study Design

This research study collected original data. It was a quantitative-descriptive research design that used convenience and snowball sampling. This design was appropriate for this study because it described and quantified the relationship between variables (Holosko, 2006). Further, previous quantitative research indicated that certain variable relationships might be similar between real-money and freeroll poker players as discussed in Chapter 2.

The Pilot Study Participants and Procedure

This study received ethics approval though The University of Georgia's Institutional Review Board. The surveys were administered over three days in April of 2013. Participants were recruited in-person through a for-profit poker club that provided freeroll Texas Hold'em poker tournaments, in a popular a pool hall.

The sample was composed of adult freeroll poker players. The poker club offered two tournaments a day, five days a week, with most tournaments lasting three hours. The pen and paper surveys were made available an hour before the tournaments began until an hour after the tournaments ended. Participants were given a consent form (see Appendix C). Signatures were not collected because those signatures would have been the only identifying markers between the participants and their surveys.

The Pilot Study Survey

The Pilot Study Survey (PSS) had over 100 questions with multiple-choice and fill-in the blank questions (see Appendix D). The PSS had four established instruments: (a) The Problem Gambling Severity Index (PGSI); (b) The Mental Health Index-5 (MHI-5); (c) The Alcohol Use and Disorders Identification Test (AUDIT); and (d) The Gambling Passion Scale (GPS). The PSS also included an Pilot Author Generated Questions section. The Pilot Author Generated Questions consisted of six section and was intermixed with the four established instruments.

Problem Gambling Severity Index (PGSI). The PGSI is a 9-item self-report screen. The PGSI is a subscale of the larger Canadian Problem Gambling Index (CPGI). Both screens measures past year GD in the general population (Ferris, Wynne, & Single, 1998). The higher a person's PGSI scores the more likely he or she is to be experiencing GD. Researchers, McMillen and Wenzel (2006) found the PGSI has favorable psychometric properties with the 20-item

South Oaks Gambling Screen (SOGS). The SOGS is often referred to as the gold standard for GD assessment.

The Mental Health Index-5 (MHI-5). The MHI-5 is a 5-item self-report screen. It screens for depression and anxiety. While there are many comorbid mental health issues, these two were often found in populations with GD. The higher a MHI-5 score, the more likely a respondent is to be experiencing GD. A cut-off of 52 was used, similar to the one used by Kelson, Dunstan, Lloyd, and Fone (2008).

The Gambling Passion Scale (GPS). The GPS is a 14-item self-report screen. It assesses two subtypes of passion: (a) harmonious passion; and (b) obsessive passion. Harmonious passion is reflected by behaviors that are in line with that individual's own values and ethics. It also has a positive relationship with intrinsic gambling motivation. Conversely, obsessive passion is reflected by behaviors that are not in line with that individual's own values and ethics. Obsessive passion has a positive relationship with extrinsic motivations, which is indicative of GD (Rousseau et al., 2002).

The Pilot Author Generated Questions. This is a 55-item self-report survey. It covered the respondents' exposure and pathway into gambling and freeroll poker. It also covered sociodemographics, poker preferences, and real-money gambling behavior. Each of these characteristics have been identified as lower or higher risk factors for developing GD with real-money gamblers in the related literature.

The Pilot Study Data Analysis

Demographic data was analyzed including descriptive statics and frequencies with counts and percentages for each category. A bivariate analysis was completed and a logistic regression model run. The data was analyzed using SPSS.

The Pilot Study: Established Instruments Results

While not statistically significant, the established instruments (see Table 3.1) indicated some life problems in this sample. The GD rate (18.51%) was higher for the study sample than for the general population. Over one-third (40.63%) of respondents endorsed an item on the MHI-5, indicating a possible mental health issue. The problem-drinking rate (19.35%) was higher than for the general population. Over half (57.81%) reported harmonious passion, indicating this game enriches their lives while one-third (30.77%) report obsessive passion.

Table 3.1
Pilot Study: Established Instruments Results

	Yes		No		
	N	%	N	%	Total
PGSI	10	18.51	54	81.49	64
MHI-5	26	40.63	38	59.37	64
AUDIT	12	19.35	50	80.65	62
Harmonious Passion	37	57.81	27	42.19	64
Obsessive Passion	20	30.77	44	69.23	64

The Pilot Study Player Author Generated Question Results

The Pilot Study Author Generated Questions had six parts. For analysis, they were collapsed into three categories: (a) sociodemographics; (b) gateway; and (c) gambling history. These player characteristics were explored using descriptive statistics.

Pilot Study: Sociodemographics. The sample consisted of adult freeroll poker players (N=64). The mean age was found to be 42.5 years old (see Table 3.2) with a range from 19 to 86 years of age (*SD*=2.59). The majority of the respondents were male (82.81%) and Caucasian (77.97%). Overall, the respondents were more spiritual, educated, employed, earned a lower middle class wage, and were not married. They were split evenly between having children and being childfree.

Table 3.2
Pilot Study: Sociodemographics

Variables	Responses	N	%
Gender	Male	53	82.81
	Female	11	17.19
	Total	64	100.00
Age	17-20	1	1.75
Mean	25-34	26	45.61
42.5y	35-44	11	19.30
	45-54	6	10.53
	55+	13	22.81
	Total	57	100.00
Race	Asian	3	5.09
	African American	8	13.56
	Caucasian	46	77.97
	Hispanic	1	1.69
	Native American	1	1.69
	Total	59	100.00
Spirituality	No	22	34.92
	Yes	43	65.08
	Missing	1	1.56
	Total	64	100.00

Variables	Responses	N	%
Education	High school degree	14	21.87
	Some college	18	28.13
	College degree	15	23.44
	Advanced degree	17	26.56
	Total	64	100.00
Employment	Un/underemployed	11	17.20
	Employed	44	68.75
	Retired	9	14.00
	Total	64	100.00
Income/ wk	$0.00-$249	24	37.50
	$250-$749	22	34.38
	$850-$2,500	18	28.12
	Total	64	100.00
Marital Stat	Single	29	45.30
	Married	23	35.94
	Separated/divorced	12	18.46
	Total	64	100.00
Offspring	Minor full-time	22	34.92
	Adult child	14	22.22
	Childfree	27	46.86
	Total	63	100.00

Pilot Study: Gateway. The Pilot Study: Author Generated Gateway Questions (see Table 3.3) paints a picture of a possible relationship between freeroll poker games as a gateway to real-money poker games. A few examples are as follows: many respondents learned to play poker in freeroll games (65.63%) or low stakes penny poker games (23.44%). Many credit freeroll poker with giving them to confidence to start playing real-money games (59.38%) and close to half report freeroll poker as the reason they started playing in real-money games (40.63%).

Table 3.3
Pilot Study: Author Generate Gateway Questions

	True		False		
	N	%	N	%	Total
1. I learned to play poker in freeroll games	42	65.63	22	34.38	64
2. I play real-money poker because I learned in freeroll poker games	26	40.63	38	59.38	64
3. I play freeroll poker because I learned in real-money games	14	21.88	50	78.13	64
4. Freeroll poker gave me the confidence to play real-money games	38	59.38	25	39.06	63
5. I would play more real-money if cardrooms were more available	50	78.13	14	21.88	64
6. I would play more freeroll games if they were more available	48	75.00	16	25.00	64
7. I would play poker online if it was more available	34	53.13	30	46.88	64
8. The main reason I am a poker player is because of freeroll games	29	45.31	35	54.69	64
9. Poker has negatively affected my work or school	03	4.69	61	95.31	64
10. Poker has negatively affected at least one relationship	06	9.38	58	90.63	64
11. Poker has negatively affected my finances	07	10.94	57	89.06	64
12. I want to cut down the amount of time I spend playing poker	05	7.81	59	92.19	64
13. As a child, I saw my relatives gamble regularly	14	21.88	50	78.13	64
14. Somebody in my family has a gambling addiction	12	18.75	51	79.69	63
15. Somebody in my family has a drug or alcohol addiction	18	28.13	46	71.88	64
16. I didn't start with freeroll poker. But I did start with penny poker	15	23.44	49	76.56	64
17. I first played free or penny poker then moved to higher stakes	27	42.19	36	56.25	63
18. I have played freeroll poker online or in-person	58	90.63	06	9.38	64
19. Poker is a game of luck	23	35.94	38	59.38	61

Pilot Study: Gambling History. The Pilot Study: Gambling History Questions (see

Table 3.4) paints a picture of the possible relationship between a person's gambling history and

GD. A few examples are as follows: (a) a quarter (26.56%) started gambling as young children;

(b) more than half (64.06%) started gambling before their 16th birthday; (c) half (48.44%) first

gambled on the game of poker; and (e) half (50.00%) were introduced to gambling by a family

member.

Table 3.4
Pilot Study: Author Generated Gambling History Questions

Question	Responses	N	%
B1. I first gam when I was_.	0-8	7	10.94
	9-12	10	15.62
	13-16	24	37.5
	17-20	9	14.06
	21-24	6	9.38
	25-34	2	3.13
	35-44	3	4.69
	Total	64	100
B2. My first type of gam was_.	Dice	4	6.25
	Poker	31	48.44
	Slots	4	6.25
	Lottery	1	1.56
	Blackjack	4	6.25
	Sports	5	7.81
	Pitc'g pennies	4	6.25
	Animals races	1	1.56
	Bar games	2	3.13
	Sports I play	2	3.13
	Other	3	4.69
	Missing	3	4.69
	Total	64	100
B3. The person that intro me to gam was_.	Friend	25	39.06
	Parent	11	17.19
	Grandparent	6	9.38
	Romantic partner	1	1.56
	Other relative	8	12.50
	Other	5	7.81
	Missing	8	12.50
	Total	64	100
B5. I first played poker_.	Under 13	12	21.88
	13-16	16	25.00
	17-20	12	18.75
	21-24	3	4.69
	25-34	8	12.50
	35-44	6	9.38
	45-54	2	3.13
	55+	3	4.69
	Total	64	100

Question	Responses	N	%
B6. I started playing poker bc_.	For fun	33	51.56
	To fit in	1	1.56
	Win money	1	1.56
	Excitement	3	4.69
	A challenge	1	1.56
	Saw it on TV	1	1.56
	Socialize	16	25.00
	Smbdy insisted	5	7.81
	Missing	3	4.69
	Total	64	100
B7. When I first played poker I usually_.	Won	27	42.19
	Lost	33	51.56
	Missing	4	6.26
	Total	64	100
B8. I started playing poker regularly _	Under 13	3	4.69
	13-16	4	6.25
	17-20	16	25.00
	21-24	7	10.94
	25-34	9	14.06
	35-44	10	15.63
	45-54	4	6.25
	55+	3	4.69
	Missing	8	12.50
	Total	64	100
B4. When I first gam I usually_.	Won	33	56.90
	Lost	25	43.10
	Total	58	100
B9. When I play poker I usually_.	Won	36	62.07
	Lost	22	37.93
	Total	58	100
D7. Spend for chip-ups for freeroll poker_.	$0.00	14	23.33
	$1-15	27	45.00
	$15-$30	19	31.67
	Total	60	100

Pilot Study Bivariate and Logistic Regression Analysis

The results were also analyzed at the bivariate level and a logistic regression was completed. At the bivariate level, GD and obsessive passion and were found to be statistically significant. The logistic regression analysis found that the belief that poker is a skill game was a predictor of GD.

<div align="center">

Full Study Method

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The purpose of the full study was to capture information about freeroll poker players. The first objective was simply to measure the prevalence rate of GD in this sample. The second objective was to learn about the pathway to and through poker including the potential hazards. The third and fourth goals of the research were more complicated, as they explored risk factors. The study looked at freeroll players' risk factors such as specific experiences, beliefs, and behaviors that may be high risk or even predictive of GD. These risk factors were also analyzed for their predictive ability with player poker type: (a) a real-money player or (b) a freeroll player. This section includes a discussion of the sample, study design, and data collection.

The Full Study Sample

This study used non-probability purposive snowball sampling (N=100). The researcher posted the survey request on her own Facebook page as well as the Facebook pages of freeroll poker clubs, organizations, and aficionados with a request for them to share it with their members and friends. Inclusion criteria: (a) having played freeroll poker at least once; (b) 18 years or older; and (c) participant consent.

The Full Study Design

This research consisted of original data. It was a quantitative-descriptive research design. This design was appropriate for this study because it described and quantified the relationship

between variables (Holosko, 2006). Thirty-two variables were selected and operationalized into lower and higher risk factors based on a literature review conducted to build a list of relevant explanatory variables.

The Full Study Data Collection

This study received ethics approval though the University of Georgia's Institutional Review Board (IRB). The consent letter was provided as the first question of the survey (see Appendix E). The letter explained the purpose of the study as well as informed the respondents that the survey was voluntary and without remuneration. Respondents clicked *yes* or *no* to consent to take the survey. If they selected yes, the rest of the survey was unlocked. If they select no, their survey ended. Neither Qualtrics nor the researchers collected IP addresses or any other identifying material during the surveys' administration. The survey was made available for the month of February in 2015. The collected data was kept in a computer locked with a password.

The Full Study Survey

The Pilot Study Survey was longer than the Full Study Survey. While the pilot study used four established instruments: (a) The Problem Gambling Severity Index; (b) The Mental Health Index-5; (c) The Alcohol Use Disorder Identification Test; and (d) The Gambling Passion Scale. The shortened Full Study Survey (see Appendix F) only used The Gambling Passion Scale and added a shorter screen for GD, The Brief Biosocial Gambling Screen (BBGS). The Pilot Study Survey had 55 author-generated questions, while the Full Study Survey had 22.

The Brief Biosocial Gambling Screen (BBGS). The BBGS is a 3-item self-report inventory. It was developed to screen for disordered gambling. This screen was developed to help the respondent decide whether to seek a more formal evaluation for their problematic gambling behavior. Gebauer, LaBrie, and Shaffer (2010) reported the BBGS had high sensitivity

at 96% resulting from 76 of 79 respondents with GD correctly identified and high specificity at 99% resulting from 10,892 of 11,027 non-GD gamblers correctly identified.

Gambling Passion Scale (see the description in the pilot study section).

The Full Study Author Generated Survey Questions. The 55 questions from the Pilot Author Generated Survey Questions were used to create the Full Study Author Generated Survey. The pen and paper and open-ended format of the Pilot Study Survey was appropriate for a small sample size, but changes were made to prepare it for the Full Study, which was hosted online. These changes included: a) enriching questions with the qualitative responses from the pilot data; b) clarifying ambiguous questions; and c) changing open-ended questions to multiple-choice questions. For example, the following question was open-ended and all the written-in responses were transformed in to a multiple-choice question for the Full Study. Q2. As I remember, my first type (any kind) of gambling was ___.

The Full Study Data Analysis Procedure

One hundred and three surveys were submitted and three were found to be less than 50% complete, resulting in a sample size of 100. The raw data was downloaded from Qualtrics and analyzed with the Statistical Program for the Social Sciences (SPSS) 24.0. Demographic data was analyzed including descriptive statics and frequencies with counts and percentages for each category. A bivariate analysis was completed. Finally, logistic regression models were run. Overall, there was less than 10% missing data in all analyses. Therefore, the enter method was used to handle missing data.

Bivariate Recode Procedures

The 31 variables for this study were taken from the Full Study Survey. Twenty-three of the questions offered multiple-choice responses. Those responses were collapsed into dichotomous responses for the bivariate analysis (recall Table 2.1).

Dependent Variables

Gambling disorder recodes: Yes. Gambling research indicates that people who endorse items on the BBGS tend to report higher rates of GD than their counterparts who do not. It is made up of three questions: (a) have you become restless, irritable or anxious when trying to stop/cut down on gambling?; (b) have you tried to keep your family or friends from knowing how much you gambled?; and (c) did you have such financial trouble as a result of your gambling that you had to get help with living expenses from family, friends or welfare? The screen has a cut-off of one, so endorsing, "Yes" on any one of the three sub-questions indicates possible GD. It was transformed into a dichotomous question by collapsing the responses into two subcategories renamed: "Lower risk: No" and "Higher risk: Yes".

Poker player type recodes: Real-money. The survey question read, "I mostly play _" with multiple-choice options:

(a). Freeroll poker n=51

(b). Real-money poker n=29

(c). Both equally n=20.

To transform this question into a dichotomous one, real-money and both were collapsed into one variable. It was hypnotized, based on the extant literature investigating levels of engagement, that freeroll players were a distinct group because of their unwillingness to risk real money. Whereas, the primarily real-money players and the both equally players are willing to risk real money. To confirm this, bivariate analyses were run with each combination. Freeroll

players (n=51) and real-money players and both equally (n=49) resulted the most robust variable combination. Subcategory One consists of the first response: (a) I primarily play freeroll poker. It was renamed: "Lower risk: Freeroll". Subcategory Two consists of the remaining responses: (b) I play both equally; and (c) I primarily play real-money poker. It was renamed: "Higher risk: Real-money".

Independent Variables Recode

Sociodemographics Recodes: Risk

Gender recodes: Male. Gambling research indicates that males tend to report higher rates of GD than their counterparts who were female. The original question had three possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first two responses: (a) female; and (b) other. It was renamed: "Lower risk: Female" because there were no responses for the choice, other. Subcategory Two consists of the remaining response: (c) male. It was renamed: "Higher risk: Male".

Current age recodes: Under 35. Gambling research indicates that younger people tend to report higher rates of GD than their counterparts who were older. The original question had seven possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first four responses: (a) 74-65; (b) 64-55; (c) 54-45; and (d) 44-35. It was renamed: "Lower risk: Over 34". Subcategory Two consists of the remaining three responses: (e) 34-25; (f) 24-21; and (g) 20-18. It was renamed: "Higher risk: Current age under 35".

Race recodes: Non-Caucasian. Gambling research indicates that non-Caucasian people tend to report higher rates of GD than their counterparts were not. The original question had four

possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the response, Caucasian. It was renamed: "Lower risk: Caucasian". Subcategory Two consists of the remaining responses: (b) Asian; (c) African American; (d) Hispanic; (e)Native American; and (f) other. It was renamed: "Higher risk: Non-Caucasian".

Marital status recodes: Unmarried. Gambling research indicates that unmarried people tend to report higher rates of GD than their counterparts who were married. The original question had four possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first response: (a) married. It was renamed: "Lower risk: Married". The remaining responses: (b) single; (c) divorced; and (d) widowed. It was renamed: "Higher risk: Unmarried".

Offspring recodes: Childfree. Gambling research indicates that childfree people tend to report higher rates of GD than their counterparts who have a child. The original question had four possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first three responses: (a) minor child living with me full-time; (b) minor child living with me part-time; and (c) have an adult child. It was renamed: "Lower risk: Child". Subcategory Two consists of the remaining response: (d) no children. It was renamed: "Higher risk: Childfree".

Education recodes: No college degree. Gambling research indicates that people with less education tend to report higher rates of GD than their non-degree earning counterparts do. The original question had six possible responses. It was transformed into a dichotomous question by collapsing the six responses into two subcategories. Subcategory One consists of the first three responses: (a) Ph.D., MD, or JD; (b) master's degree; and (c) college degree. It was

renamed: "Lower risk: Yes, college degree". Subcategory Two consists of the remaining three responses: (d) some college; (e) high school degree; and (f) some high school. It was renamed: "Higher risk: No, college degree".

Employment recodes: Not full-time. Gambling research indicates that people who were employed less than full-time tend to report higher rates of GD than their less than full-time counterparts do. The original question had five possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first response: (a) employed full-time. It was renamed: "Lower risk: Full-time". Subcategory Two consists of the remaining four responses: (b) retired; (c) under-employed; (d) unemployed; and (e) student. It was renamed: "Higher risk: Not full-time".

Spirituality importance recodes: No. Gambling research indicates that people for whom spirituality is not important tend to report higher rates of GD than their counterparts who do for whom spirituality is important. The original question had three possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first two responses: (a) very important; and (b) somewhat important. It was renamed: "Lower risk: Yes". Subcategory Two consists of the remaining response: (c) Not important. It was renamed: "Higher risk: No".

Veteran recodes: Yes. Gambling research indicates that veterans tend to report higher rates of GD than their counterparts who were not. The original question was dichotomous with false and true response options. The responses were renamed: "Lower risk: No" and "Higher risk: Yes".

Gambling History Recodes: Risk

Age started gambling recodes: Under 17. Gambling research indicates that people who

started gambling before their 17th birthday tend to report higher rates of GD than their

counterparts who started gambling at an older age. It is possible this is true for freeroll poker

players. The original question had nine possible responses. It was transformed into a

dichotomous question by collapsing the responses into two subcategories. Subcategory One

consists of the first six responses: (a) I've never gambled; (b) 55+; (c) 35-44; (d) 25-34; (e) 21-

24; and (f) 17-20. It was renamed: "Lower risk: Over 16". Subcategory Two consists of the

remaining three responses: (g) 13-16; (h) 9-15; and (i) 0-8. It was renamed: "Higher risk: Under

17".

Introduced to gambling by recodes: Friend. Gambling research indicates that people

who were introduced to gambling by a friend to report higher rates of GD than their counterparts

who were introduced by family or a romantic partner. The original question had six possible

responses. It was transformed into a dichotomous question by collapsing the responses into two

subcategories. Subcategory One consists of the first four responses: (a) grandparent; (b) parent;

(c) sibling; (d) other relative; and (e) romantic partner. It was renamed: "Lower risk: Family

Subcategory Two consists of the remaining response: (f) friend. It was renamed: "Higher risk:

Friend". Three responses were removed, I've never gambled.

Beginner's luck recodes: Yes. Gambling research indicates that people who experienced

beginner's luck tend to report higher rates of GD than their counterparts who did not. The

original question had three possible responses. This question was transformed into a

dichotomous question by collapsing the responses into two subcategories. Subcategory One

consists of two responses: (b) false; and (c) I was about average. It was renamed: "Lower risk:

No". Subcategory two consists of the remaining response: (a) true. It was renamed: "Higher risk: Yes".

Free gateway to real-money recodes: Yes. Gambling research indicates that people who learned to play in freeroll games then transitioned to chase games tend to report higher rates of GD than their counterparts who did not. It is possible this is true for freeroll poker players. The original question was dichotomous with false and true responses. It was renamed: "Lower risk: No" and "Higher risk: Yes".

Family history of gambling recodes: Yes. Gambling research indicates that people who saw their family members gambling as a children tended to report higher rates of GD than their counterparts who did not. The original question had five possible responses. It was transformed into a dichotomous question by collapsing the five responses into two subcategories. Subcategory One consists of the first response: (a) none. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining four responses: (b) at least one; (c) a few; (d) about half; and (e) almost all. It was renamed: "Higher risk: Yes".

Family history of gambling disorder recodes: Yes. Gambling research indicates that people who had a family member with GD tend to report higher rates of GD than their counterparts who did not. The original question had five possible responses. It was transformed into a dichotomous question by collapsing the five responses into two subcategories. Subcategory One consists of the first response: (a) none. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining four responses: (b) at least one person; (c) a few people; (d) about half the people; and (e) almost everyone. It was renamed: "Higher risk: Yes".

Family history of substance abuse recodes: Yes. Gambling research indicates that people who had a family member with a substance abuse problem tend to report higher rates of

GD than their counterparts who did not. The original question had five possible responses. It was transformed into a dichotomous question by collapsing the five responses into two subcategories. Subcategory One consists of the first response: (a) none. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining four responses: (b) at least one person; (c) a few people; (d) about half the people; and (e) almost all. It was renamed: "Higher risk: Yes".

Behavioral Addiction History Recodes: Risk

Chase real-money loss recodes: Yes. Poker and general gambling research indicates that people who chase losses tend to report higher rates of GD than their counterparts who did not. The original question had four possible responses. It was transformed into a dichotomous question by collapsing the four responses into two subcategories. Subcategory One consists of the first response: (a) never. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining three responses: (b) rarely; (c) sometimes; and (d) often. It was renamed: "Higher risk: Yes".

Chase free loss recodes: Yes. Gambling research indicates that people who chase losses tend to report higher rates of GD than their counterparts who did not. It is possible this is true for freeroll poker players. The original question had four possible responses. It was transformed into a dichotomous question by collapsing the four responses into two subcategories. Subcategory One consists of the one response: (a) never. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining three responses: (b) rarely; (c) sometimes; and (d) often. It was renamed: "Higher risk: Yes".

Want to cut down on freeroll poker: Yes. Gambling research indicates that people who want to cut down on how much time they spend gambling tend to report higher rates of GD than their less than their counterparts who do not. It is possible this will also be true for freeroll poker

players. The original question was dichotomous with false and true responses. It was renamed: "Lower risk: No" and "Higher risk: Yes".

Buy free chips (use real money to chips for free games) recodes: Yes. Gambling research indicates that people who are more involved in the gambling activity tend to report higher rates of GD than their less involved counterparts. It is possible this is true for freeroll poker players. The original question was dichotomous with false and true response options. The responses were renamed: "Lower risk: No" and "Higher risk: Yes".

Favorite game recodes: Poker. Gambling research indicates that people who play poker tend to report higher rates of GD than their counterparts who prefer other games. The original question was made up of eight possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first seven responses: (a) bar game like pool or darts; (b) dice; (c) bingo; (d) lottery; (e) slots; (f) sports betting; and (g) bet on games I am playing like basketball, bowling, and golf. It was renamed: "Lower risk: Other". Subcategory Two consists of the remaining response: (h) poker. It was renamed: "Higher risk: Poker".

Motivation for free play recodes: Practice real-money. This study hypothesizes people whose primary motivation for playing free games is to sharpen their skills for later real-money games will report higher rates of GD than their less than more socially motivated counterparts will. It is possible this is true for freeroll poker players. The original question had four possible responses. This question was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first three responses: (a) to socialize; (b) for status of being a regular player; and (c) none of these reasons. It was renamed:

"Lower risk: Socialize". Subcategory Two consists of the remaining response: (d) sharpen skills for later real-money games. It was renamed: "Higher risk: Practice real-money".

Play poker with recodes: Strangers. Gambling research indicates that people who play with strangers tend to report higher rates of GD than their counterparts who play with friends and family. The original question had three possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first response: (a) with friends and family. It was renamed: "Lower risk: Friends & Family". Subcategory Two consists of the remaining two responses: (b) with acquaintances; and (c) with strangers. It was renamed: "Higher risk: Strangers".

Poker belief recodes: Skill. Gambling research indicates that people who believe poker is a game of skill tend to report higher rates of GD than their counterparts who believe poker is a game of luck. It is possible this is true for freeroll poker players. The original question was dichotomous with false and true response options. The responses were renamed: "Lower risk: Luck" and "Higher risk: Skill".

Harmonious passion recodes: Above mean. Gambling research indicates that people who report their gambling behavior is not in line with their values and ethics tend to report higher rates of GD than their counterparts whose gambling behavior is in line with their values and ethics. The original variable dimension had five questions on a Likert Scale of 1-7: (a) This gambling game allows me to live memorable experience; (b) Playing this gambling game is in harmony with the other activities in my life; (c) Things that I am discovering with this gambling game allow me to appreciate it even more; (d) This gambling game reflects the qualities that I like about myself; and (e) This gambling game allows me to live a variety of experiences. To make this questions dichotomous, a mean score cut off was calculated: (a) females 3.35

(SD=1.49); and (b) males 3.88 (SD=1.47.) Respondents were grouped into either the above the median cut off or below the median cut off. It was renamed: "Lower risk: Above mean" and "Higher risk: Below mean".

Obsessive passion recodes: Below mean. Gambling research indicates that people who report their gambling behavior is not in line with their values and ethics tend to report higher rates of GD than their counterparts whose gambling behavior is in line with their values and ethics. The original variable dimension had five questions. The responses fell on a Likert Scale of 1-7: (a) I couldn't live without this gambling game; (b) I am emotionally dependent on this gambling game; (c) I have a tough time controlling my need to play this gambling game; (d) I have almost an obsessive feeling for this gambling game; and (e) The urge is too strong, I cannot help myself from playing this gambling game. To make this question dichotomous, a mean score was calculated: (a) females 1.55 (SD=1.19); and (b) males 1.84 (SD=1.15). Respondents were grouped into either the above the median cut off or below the median cut off. It was renamed: "Lower risk: Above mean" and "Higher risk: Below mean".

Substance Addiction History Recodes: Risk

Drink days per week recodes: Four or more. Gambling research indicates that people who report they drink four or more times a week tend to report higher rates of GD than their counterparts who drink less days. The original question had four possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first four responses: (a) one time a month; (c) one time a week; and (d) two-three times a week. It was renamed: "Lower risk: Zero-three". Subcategory Two consists of the remaining response: (e) four or more times a week. It was renamed: "Higher risk: Four or more".

Binge drinking recodes: Yes. Addiction research indicates that people who report they binge drink alcoholic beverages tend to report higher rates of GD than their counterparts who do not. Binge drinking is defined as four or more for females and five or more for males. The original question had five possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first two responses: (a) zero; and (b) one or two (c) three or four for males. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining three responses: (d) three or four for females; (e) five or six; and (f) seven to ten. It was renamed: "Higher risk: Yes".

Use alcohol while playing recodes: Yes. Gambling research indicates that people who drink alcohol while playing poker tend to report higher rates of GD than those who do not. The original question had three possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first response: (a) never. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining two responses: (b) sometimes; and (c) most of the time. It was renamed: "Higher risk: Yes".

Use drugs while playing recodes: Yes. Gambling research indicates that people who use drugs while playing poker tend to report higher rates of GD and have an increased likelihood of in-group membership than their counterparts who do not. The original question had three possible responses. It was transformed into a dichotomous question by collapsing the responses into two subcategories. Subcategory One consists of the first response: (a) never. It was renamed: "Lower risk: No". Subcategory Two consists of the remaining two responses: (b) sometimes; and (c) most of the time. It was renamed: "Higher risk: Yes".

Use tobacco recodes: Yes. Gambling research indicates that people who use tobacco tend to report higher rates of GD and have an increased likelihood of in-group membership than their counterparts who do not. The original question was dichotomous with false and true response options. The responses were renamed: "Lower risk: No" and "Higher risk: Yes".

CHAPTER 4

RESULTS

The sample consisted of adults who have played freeroll poker at least once *(*N=100). This study has two dependent variables: gambling disorder and poker player type. They each also served as an independent variable for the other, with 31 independent variables. This chapter will cover the univariate analysis, bivariate analysis, as well as the logistic regression analysis.

Univariate Analysis

Player characteristics were collected for this study. A univariate analysis was conducted (recall Table 2.1). The following is divided into five sections: (a) dependent variables; (b) sociodemographics; (c) gambling history; (d) behavioral addiction history; and (e) substance addiction history.

Dependent Variables

The first player characteristic subcategory is the dependent variables section. This covers the analysis between the two study bivariate dependent variables (see Bivariate Recode Procedures in Chapter 3 for more on this process). Sixteen percent of respondents were identified as PEPG through the Brief Biosocial Gambling Screen (BBGS). Half (51.00%) identified as a being primarily freeroll poker players and the rest, 49.00% identified as being primarily real-money poker players.

Sociodemographics

The second player characteristic subcategory is the sociodemographics section. This covers inherited and non-inherited characteristics. Three-quarters (75.00%) were male.

Approximately, two-thirds (70.00%) were over 34 years old. Three-quarters (72.00%) were Caucasian. Half were unmarried (53.00%) and 46.93% were childfree. Three-quarters (76.00%) had at least a college degree and 67.00%% were employed than full-time. Two-thirds (63.00%) reported spirituality was important to their lives. Finally, a small number (15.00%) were veterans.

Gambling History

The third player characteristic subcategory is the player gambling history section. This covers specific milestones and experiences from the respondents and their family. Over than half (60.00%) of the respondents started gambling over the age of 17. Half were introduced to gambling by a friend (50.00%) as opposed to a family member or romantic partner. Less than half (44.33%) reported experiencing beginner's luck when they first started gambling. Half (46.00%) reported learning to play poker in free games and reported it was a gateway to playing in real-money games. Half (53.00 %) reported that as a child they saw at least one family member gamble. A quarter (22.00%) reported at least one family member had a history of gambling disorder. Over half (55.00%) reported at least one family members had a history of substance addiction.

Behavioral Addiction History

The fourth player characteristic subcategory is the behavioral addiction history section. This sections covers some experiences, beliefs, and behaviors in relation to respondents' engagement with gambling. Three-quarters (72.00%) of respondents reported chasing real-money poker losses, and 50.00% reported chasing freeroll poker losses. Eleven percent reported they wanted to cut down on how much time they spend playing freeroll poker. Less than half (42.00%) reported they have spent real money to buy free poker chips. Over three-quarters

(80.00%) reported poker was their favorite gambling game. Half (48.00%) reported their primary motivation for playing freeroll poker was to practice their skills for later real-money games, the rest reported they played for more social reasons. Half (52.00%) reported they primarily play poker with acquaintances or strangers and the rest played primarily with friends and family. Three-quarters (77.00%) reported they believed poker was a game of skill, not luck. Half (49.00%) were below the mean cut off for harmonious passion and one-third (33.00%) were above the mean cut off for obsessive passion.

Substance Addiction History

The fifth player characteristic subcategory is the substance addiction section. This covers specific thoughts, experiences, and behaviors surrounding substance use and abuse. A small number reported they drink alcohol four or more days a week (17.00%) and 16.00% reported they binge drink. Three-quarters (76.77%) reported they use alcohol while playing poker and 20.00% reported using drugs while playing poker. Finally, less than half (41.00%) reported using a tobacco product regularly.

<div align="center">

Bivariate Analysis

</div>

A bivariate analysis was conducted (see Table 3.5). The following is a breakdown, per variable, of their frequencies and their chi-square tests of significance. The following is divided into five sections: (a) dependent variables (b) sociodemographics; (c) gambling history; (d) behavioral addiction history; and (e) substance addiction history.

Dependent Variables

Gambling Disorder: Yes. A small number of the respondents reported GD (n=16, 16.00%); and the rest did not (n=84, 84.00%). For this analysis, GD was input as the independent variable and poker player type was input as the dependent variable. Of the yes-GD respondents,

16.33% were real-money players, which was similar to the freeroll players, at 15.69%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.008, p < .05.

Poker player type: Real-money. The respondents were be split into two subgroups: (a*) real-money players*-those who self-reported they *primarily* play in real-money games as often *or more* than they play in freeroll games (n=49, 49.00%); or (b*) freeroll players*-those who self-report they *primarily* play in freeroll games (n=51, 51.00%). For this analysis poker player type was in put as the independent variable and GD was input as the dependent variable. Of the real-money player respondents, 50.00% reported yes-GD, which was similar to the non-GD respondents, at 48.81%. A chi-square test was conducted between the two variables and the result was again, statistically significant, X^2 (1, N = 100) = 0.008, p < .05.

Independent Variables

Sociodemographics

Gender: Male. The majority of the respondents identified as male (n=75, 75.00%); and the rest identified as female (n=25, 25.00%). Of the male respondents, 58.67% were real-money players, which was higher than for female respondents, at 20.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 11.218, ns. Additionally, of the male respondents, 17.33% reported GD, which was higher than for the female respondents, at 12.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.397, ns.

Current age: Under 35. Less than half of the respondents reported their current age as under 35 (N=30, 30.00%); and the rest reported their current age as over 34 (N =70, 70.00%). Of the under 35 respondents, 43.33% were real-money players, which was lower than for the over

34 respondents, at 51.43%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.551, ns. Additionally, of the under 35 respondents, 16.67% reported GD, which was about the same as the over 34 respondents, at 15.71%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.014, p < .05.

Race: Non-Caucasian. Three-quarters of the respondents identified as non-Caucasian (n=28, 28.00%) and the rest identified as Caucasian (n=72, 72.00%). Of the non-Caucasians respondents, 50.00% were real-money players, which was similar to the Caucasian respondents, at 48.61%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.016, p < .05. Additionally, of the non-Caucasian respondents, 35.71% reported GD, which was higher than for the Caucasian respondents, at 8.33%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 11.246, ns.

Marital status: Unmarried. About half of the respondents identified as unmarried (n=53, 53.00%); and the rest identified as married (n=47, 47.00%). Of the unmarried respondents, 49.06% were real-money players, which was similar to the married respondents, at 48.94%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.001, p < .05. Additionally, of the unmarried respondents, 22.64% reported GD, which was higher than for the married respondents, at 8.51%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 3.701, ns.

Offspring: Childfree. About half of the respondents identified as childfree (n=46, 46.94%); and the rest reported they had a child (n=52, 53.06%). Of the childfree respondents,

45.65% were real-money players, which was lower than for the yes-child respondents, at 53.85%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 98) = 0.656, ns. Additionally, of the childfree respondents, 19.57% reported GD, which was higher than for the yes-child respondents, at 11.54%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 98) = 1.213, ns.

Education: No college degree. About a quarter of the respondents reported they did not have a college degree (n=24, 24.00%); and the rest reported they did (n=76, 76.00%). Of the no-degree respondents, 50.00% were real-money players, which was about the same as the yes-degree respondents, at 48.68%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.013, p < .05. Additionally, of the no-degree respondents 25.00% reported GD, which was higher than for the yes-degree respondents, at 13.16%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.903, ns.

Employment: No full-time. About one-third of the respondents reported they were employed less than full-time (n=32, 32.33%); and the rest reported they were employed full-time (n=67, 67.00%). Of the no-full-time respondents, 34.38% were real-money players, which was higher than for the yes-full-time respondents, at 56.72%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 99) = 4.324, ns. Additionally, of the no-full-time respondents, 18.75% reported GD, which was higher than for the yes-full-time respondents, at 14.93%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 99) = 0.234, ns.

Spirituality importance: No. About one-third of the respondents reported that spirituality was not important to them (n=37, 37.00%); and the rest reported spirituality was important (n=63, 63.00%). Of the not-important respondents, 56.76% were real-money players, which was similar to the yes-important respondents, at 44.44%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.414, ns. Additionally, of the not-important respondents, 18.92% reported GD, which was higher than for the yes-important respondents, at 14.29%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.372, ns.

Veteran: Yes. Less than a quarter of the respondents reported they were veterans (n=15, 15.00%); and rest reported they were not veterans (n=85, 85.00%). Of the yes-veteran respondents, 40.00% were real-money players, which was not higher than for the not-veteran respondents, at 50.59%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.572, ns. Additionally, of the yes-veteran respondents, 13.33% reported GD, which was not higher than for the not-veteran respondents, at 16.47%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.093, ns.

Gambling History

Age started gambling: Under 17. Less than half of the respondents reported they first gambled when they were under 17 years old (n=40, 40.00%); and the rest reported they first gambled when they were over 16 years old (n=60, 60.00%). Of the under 17 respondents, 62.50% were real-money players, which was higher than for the over 16 respondents, at 40.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 4.862, ns. Additionally, of the under 17 respondents, 17.50%

reported GD, which was higher than for the over 16 respondents, at 15.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.112, ns.

Introduced to gambling by: Friend. About half of the respondents reported they were first introduced to gambling by a friend (n=50, 50.00%); and the rest reported they were first introduced to gambling by a family member or a romantic partner (n=50, 50.00%). Of the friend respondents, 44.00% were real-money players, which was not higher than for the family respondents, at 54.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 97) = 1.000, ns. Additionally, of the friend respondents, 18.00% reported GD, which was higher than for the family respondents, at 14.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 97) = 0.298, ns.

Beginner's luck: Yes. Less than half of the respondents reported they experienced beginner's luck when they first started playing (n=43, 44.33%); and the rest reported they did not (n=54, 55.67%). Of the yes-beginner's luck respondents, 62.79% were real-money players, which was higher than for the no-beginner's luck respondents, at 38.89%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 97) = 5.471, ns. Additionally, of the yes-beginner's luck respondents, 23.26% reported GD, which was higher than for the no-beginner's luck respondents, at 11.11%. A chi-square test was conducted between the two and the result was not statistically significant, X^2 (1, N = 97) = 2.563, ns.

Free gateway to real-money: Yes. About half of the respondents reported they learned to play poker in free games and now play real-money games (n=46, 46.00%); and the rest

reported they did not (n=54, 54.00%). Of the yes-gateway respondents, 36.96% were real-money players; which was not higher than for the no-gateway respondents, at 59.26%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 4.944, ns. Additionally, of the yes-gateway respondents, 26.09% reported GD, which was higher than for the no-gateway respondents, at 7.41%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 6.449, ns.

Family history of gambling: Yes. About half of the respondents reported a family history of gambling (n=53, 53.00%); and the rest reported they did not (n=47, 47.00%). Of the yes-family gamble respondents, 56.60% were real-money players, which was higher than for the no-family gamble respondents, at 40.43%. A chi-square test was conducted between the two variables and the result was statistically not significant, X^2 (1, N = 100) = 2.609, ns. Additionally, of the yes-family gamble respondents, 15.09% reported GD, which was not higher than for the no-family gamble respondents, at 17.02%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.069, ns.

Family history of gambling disorder: Yes. The majority of the respondents reported a family history of gambling disorder (n=78, 78.00%); and the rest reported they did not (n=22, 22.00%). Of the yes-family GD respondents, 50.00% were real-money players, which was about the same as the no-family GD respondents, at 48.72%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.011, p < .05. Additionally, of the yes-family GD respondents, 18.18% reported GD, which higher than for the no-family GD respondents, at 15.38%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.100, ns.

Family history of substance abuse: Yes. About half of the respondents reported they had a family history of substance addiction (SA) (n=55, 55.00%); and the rest reported they did not (n=45, 45.00%). Of the yes-family SA respondents, 52.73% were real-money players, which was higher than for the no-family SA respondents, at 44.44%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.679, ns. Additionally, of the yes-family SA respondents, 20.00% reported GD, which was higher than for the no-family SA respondents, at 11.11%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.455, ns.

Behavioral Addiction History

Chase real-money loss: Yes. About a three-quarters of the respondents reported they chase real-money poker losses (n=72, 72.00%); and the rest reported they do not (n=28, 28.00%). Of the yes-chase real-money respondents, 50.00% were real-money players, which was the same as the no-chase real-money respondents, at 50.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.103, ns. Additionally, of the yes-chase real-money respondents, 12.50% reported GD, which was not higher than for the no-chase real-money respondents, at 25.00%. A chi square test of significance was run and was not statistically significant, X^2 (1, N = 100) = 2.344, ns.

Chase free loss: Yes. Half of the respondents reported they chase freeroll poker losses (n=50, 50.00%); and the rest reported they do not (n=50, 50.00%). Of the yes-chase free respondents, 44.00% were real-money players, which was not higher than for the no-chase free respondents, at 54.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.000, ns. Additionally, of the yes-chase free respondents, 22.00% reported GD, which was higher than the no-chase free respondents, at

10.00%. A chi square test of significance test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 2.679 ns.

Want to cut down free: Yes. A small number of the respondents reported they wanted to cut down on the amount of time they spend playing freeroll poker (n=11, 11.00%); and the rest reported they do not (n=89, 89.00%). Of the yes-cut down respondents, 54.55% were real-money players, which was higher than for the no-cut down respondents, at 48.31%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.152, ns. Additionally, of the yes-cut down respondents, 27.27% reported GD, which was higher than for the no-cut down respondents, at 14.61%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.169, ns.

Buy free chips (use real money to chips for free games):Yes. Less than half of the respondents reported they have spent real money to buy extra chips for freeroll poker games (n=42, 42.00%); and the rest reported they have not (n=58, 58.00%). Of the yes-buy respondents, 42.86% were real-money players, which was not higher than for the no-buy respondents, at 53.45%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.093, ns. Additionally, of the yes-buy respondents, 26.19% reported GD, which was higher than for the no-buy respondents, at 8.62%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 5.595, ns.

Favorite game: Poker. The majority of the respondents identified poker as their favorite traditional gambling game (n=80, 80.00%); and the rest identified other games such as the lottery and sports betting (n=20, 20.00%). Of the poker respondents, 52.50% were real-money players,

which was higher than for the other game respondents, at 35.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.961, ns. Additionally, of the poker respondents, 15.00% reported GD, which was not higher than for the other game respondents, at 20.00%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.595, ns.

Motivation for free play: Practice real-money. About half of the respondents reported their primary motivation for playing freeroll poker was to practice their skills for later real-money poker games (n=48, 48.00%); and the rest reported social motivations (n=52, 52.00%). Of the practice respondents, 58.33% were real-money players, which was higher than for the social respondents, at 40.38%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 3.218, ns. Additionally, of the practice respondents, 27.08% reported GD, which was higher than for the social respondents, at 5.77%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 8.437, ns.

Play poker with: Strangers. About half of the respondents reported they primarily play poker with strangers (n=52, 52.00%); and the rest reported they primarily play poker with friends and family (n=48, 48.00%). Of the with-strangers respondents, 53.85% were real-money players, which was higher than for the friends and family respondents, at 43.75%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.018, ns. Additionally, of the with-strangers respondents, 21.15% reported GD, which was higher than for the friends and family respondents, at 10.42%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 2.141, ns.

Poker belief: Skill. The majority of the respondents reported they believe poker is primarily a game of skill (n=77, 77.00%); and the rest reported they believe poker is primarily a game of luck (n=23, 23.00%). Of the skill respondents, 57.14% were real-money players, which was not higher than for the luck respondents, at 21.74%. A chi-square test was conducted between the two variables and the result was statistically not significant, X^2 (1, N = 97) = 8.883, ns. Additionally, of the skill respondents, 14.29% reported GD, which was not higher than for the luck respondents, at 21.74%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 0.732, ns.

Harmonious passion: Below the mean. The mean cut off score for females was 3.35 (SD=1.49) and for males it was 3.88 (SD=1.47). Half of the responses were below the mean cut off scores (n=49, 49.00%); and the rest were above the mean cut off scores (n=51, 51.00%). Of the below respondents, 38.78%, were real-money players, which was not higher than for the above respondents, at 54.90%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 2.523, ns. Additionally, of the below respondents, 8.16% reported GD, which was not higher than for the above respondents, at 17.65%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.987, ns.

Obsessive passion: Above the mean. The mean cut off score for females was 1.55 (SD=1.19) and for males it was 1.84 (SD=1.15). One-third of the responses were above the mean cut off scores (n=33, 33.00%); and the rest were below the mean cut off scores (n=67, 67.00%). Of the above respondents, 54.55% were real-money players, which was higher than for the below respondents, at 33.25%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 1.126, ns. Additionally, of the above

respondents, 30.30% reported GD, which was higher than for the below respondents, at 4.48%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 13.038, ns.

Substance Addiction History

Drink days per week: Four or more. Less than a quarter of the respondents reported they drink alcohol four or more days a week (n=17, 17.00%); and the rest reported they drink zero-three days per week (n=83, 83.00%). Of the four or more respondents, 64.71% were real-money players, which was higher than for the zero-three respondents, at 45.78%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 2.022, ns. Additionally, of the four or more respondents, 17.65% reported GD, which was higher than for the zero-three respondents, at 15.66%. A chi-square test was conducted between the two variables and the result was statistically significant, X^2 (1, N = 100) = 0.041, p < .05.

Binge drink: Yes. A small number of respondents reported they do binge drink (n=16, 16.00%); and the rest reported they do not (n=84, 84.00%). Of the yes-binge respondents, 56.25% were real-money players, which was higher than for the no-binge respondents, at 47.62%. A chi square test of significance was run and the result was not statistically significant, X^2 (1, N = 84) = 0.401, ns. Additionally, of the yes-binge respondents, 12.50% reported GD, which was not higher than for the no-binge respondents, at 16.67%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 84) = 0.174, ns.

Use alcohol while playing: Yes. Most of the respondents reported they do drink alcohol while playing poker (n=71, 71.72%); and the rest reported they do not (n=28, 28.28%). Of the

yes-alcohol respondents, 45.07% were real-money players, which was not higher than for the no-alcohol respondents, at 57. 14%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 99) = 1.172, ns. Additionally, of the yes-alcohol respondents, 16.90% reported GD, which was higher than for the no-alcohol respondents, at 14.29%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 99) = 0.101, ns.

Use drugs while playing: Yes. About a quarter of the respondents reported they use drugs (marijuana or ADHD medication) while playing poker (n=20, 20%); and the rest reported they do not (n=80, 80%). Of the yes-drugs respondents, 70.00% were real-money players, which was higher than for the no-drugs respondents, at 43.75%. A chi-square test was conducted between the two variables the result was not statistically significant, X^2 (1, N = 100) = 4.412, ns. Additionally, of the yes-drugs respondents, 35.00% reported GD, which was higher than for the no-drugs respondents, at 11.25%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 100) = 6.715, ns.

Use tobacco: Yes. Less than half of the respondents reported they do use tobacco products (n=41, 41.00%); and the rest reported they do not (n=59, 59.00%). Of the yes-tobacco respondents, 58.54%, which was higher than for the no-tobacco respondents, at 42.37%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 84) = 2.529, ns. Additionally, of the yes-tobacco respondents, 17.07% reported GD, which was higher than for the no-tobacco respondents, at 15.25%. A chi-square test was conducted between the two variables and the result was not statistically significant, X^2 (1, N = 84) = 0.060, ns.

Bivariate Level Significant Variables

Interestingly, both of the dependent variables statistically significant with each other at the bivariate level. Among the independent variables, six variables were statistically significant. Five variables were statistically significant with poker player type: (a) problem disorder; (b) race; (c) marital status; (d) education; and (e) family history of GD. Three variables were statistically significant with gambling disorder: (a) poker player type; (b) current age; and (c) drink days per week.

Table 3.5
Full Study: Bivariate Analysis of the Study Variables

		Gambling Disorder		
A. Dependent	N	GD	Non-GD	X²
Freeroll	51	8	43	0.008**
%		15.69%	84.31%	
RMoney	49	8	41	
%		16.33%	83.67%	
Total	100	16	84	

		Poker Player Type		
Dependent	N	RMoney	Free	X²
Non-GD	84	41	43	0.008**
%		48.81%	51.19%	
GD	16	8	8	
%		50.00%	50.00%	
Total	100	49	51	

B. Socio-Demographics	Responses	N	Gambling Disorder		X²	Poker Player Type		X²
			GD	Non-GD		RMoney	Free	
Gender	Female	25	3	22	0.397	5	20	11.218
			12.00%	88.00%		20.00%	80.00%	
	Male	75	13	62		44	31	
			17.33%	82.67%		58.67%	41.33%	
Current age	Over 34	70	11	59	0.014*	36	34	0.551
			15.71%	84.29%		51.43%	48.57%	
	Under 35	30	5	25		13	17	
			16.67%	83.33%		43.33%	56.67%	
Race	Caucasian	72	6	66	11.246	35	37	0.016*
			8.33%	91.67%		48.61%	51.39%	
	Non-Cauc	28	10	18		14	14	
			35.71%	64.28%		50.00%	50.00%	
Marital status	Married	47	4	43	3.701	23	24	0.001**
			8.51%	91.49%		48.94%	51.06%	
	Unmarried	53	12	41		26	27	
			22.64%	77.36%		49.06%	50.94%	
Offspring	Yes-child	52	6	46	1.213	28	24	0.656
			11.54%	88.46%		53.85%	46.15%	
	Childfree	46	9	37		21	25	
			19.57%	80.43%		45.65%	54.35%	
Education	YesColDeg	76	10	66	1.903	37	39	0.013*
			13.16%	86.84%		48.68%	51.32%	
	NoColDeg	24	6	18		12	12	
			25.00%	75.00%		50.00%	50.00%	
Employment	Full-time	67	10	57	0.234	38	29	4.324
			14.93%	85.07%		56.72%	43.28%	
	Not FT	32	6	26		11	21	
			18.75%	81.25%		34.38%	65.63%	
Spirituality Import	Yes	63	9	54	0.372	28	35	1.414
			14.29%	85.71%		44.44%	55.56%	
	No	37	7	30		21	16	
			18.92%	81.08%		56.76%	43.24%	
Veteran	No	85	14	71	0.093	43	42	0.572
			16.47%	83.53%		50.59%	49.41%	
	Yes	15	2	13		6	9	
			13.33%	86.67%		40.00%	60.00%	
C. Gambling History	Responses	N	Gambling disorder		X²	Poker Player Type		X²
			GD	Non-GD		RMoney	Free	
Age started gam	Over 16	60	9	51	0.112	24	36	4.862
			15.00%	85.00%		40.00%	60.00%	
	Under 17	40	7	33		25	15	
			17.50%	82.50%		62.50%	37.50%	
Intro to gam by	Family	50	7	43	0.298	27	23	1.000
			14.00%	86.00%		54.00%	46.00%	
	Friend/RP	50	9	41		22	28	
			18.00%	82.00%		44.00%	56.00%	
Beginner's luck	No	54	6	48	2.563	21	33	5.471
			11.11%	88.89%		38.89%	61.11%	
	Yes	43	10	33		27	16	
			23.26%	76.74%		62.79%	37.21%	

C. Gambling History Con't	Responses	N	Gambling disorder		X²	Poker Player Type		X²
			GD	Non-GD		RMoney	Free	
Free gateway	No	54	4	50	6.449	32	22	4.944
			7.41%	92.59%		59.26%	40.74%	
	Yes	46	12	34		17	29	
			26.09%	73.91%		36.96%	63.04%	
Fam HxGam	No	47	8	39	0.069	19	28	2.609
			17.02%	82.98%		40.43%	59.57%	
	Yes	53	8	45		30	23	
			15.09%	84.91%		56.60%	43.40%	
Fam HxGD	No	78	12	66	0.100	38	40	0.011*
			15.38%	84.62%		48.72%	51.28%	
	Yes	22	4	18		11	11	
			18.18%	81.82%		50.00%	50.00%	
Fam HxSA	No	45	5	40	1.455	20	25	0.679
			11.11%	88.89%		44.44%	55.56%	
	Yes	55	11	44		29	26	
			20.00%	80.00%		52.73%	47.27%	
D. Behavioral Addiction	Response	N	Gambling Disorder		X²	Poker Player Type		X²
			GD	Non-GD		RMoney	Free	
Chase Rmoney	No	28	7	21	2.344	13	15	0.103
			25.00%	75.00%		50.00%	50.00%	
	Yes	72	9	63		36	36	
			12.50%	87.50%		50.00%	50.00%	
Chase free	No	50	5	45	2.679	27	23	1.000
			10.00%	90.00%		54.00%	46.00%	
	Yes	59	11	39		22	28	
			22.00%	78.00%		44.00%	56.00%	
Want cut down	No	89	13	76	1.169	43	46	0.152
			14.61%	85.39%		48.31%	51.69%	
	Yes	11	3	8		6	5	
			27.27%	72.73%		54.55%	45.45%	
Buy free chips	No	58	5	53	5.595	31	27	1.093
			8.62%	91.38%		53.45%	46.55%	
	Yes	42	11	31		42	38	
			26.19%	73.81%		42.86%	57.14%	
Favorite game	No	20	4	16	0.298	7	13	1.961
			20.00%	80.00%		35.00%	65.00%	
	Yes	80	12	68		42	38	
			15.00%	85.00%		52.50%	47.50%	
Motivation free	Socialize	52	3	49	8.437	21	31	3.218
			5.77%	94.23%		40.38%	59.62%	
	Practice	48	13	35		28	20	
			27.08%	72.92%		58.33%	41.67%	
Play poker with	Friends/fam	48	5	43	2.141	21	27	1.018
			10.42%	89.58%		43.75%	56.25%	
	Strangers	52	11	41		28	24	
			21.15%	78.85%		53.85%	46.15%	
Poker belief	Luck	23	5	18	0.732	5	18	8.883
			21.74%	78.26%		21.74%	78.26%	
	Skill	77	11	66		44	33	
			14.29%	85.71%		57.14%	42.86%	

D. Behavioral Addiction Con't	Response	N	Gambling Disorder		X²	Poker Player Type		X²
			GD	Non-GD		RMoney	Free	
Harmoniouspass	Above mean	51	9	42	1.987	28	23	2.523
			17.65%	82.35%		54.90%	45.10%	
	Below mean	49	4	45		19	30	
			8.16%	91.84%		38.78%	61.12%	
Obsessivepass	Below mean	67	3	64	13.038	29	38	1.126
			4.48%	95.52%		33.25%	66.75%	
	Above mean	33	10	23		18	15	
			30.30%	69.70%		54.55%	45.45%	
E. Substance Addiction	Response	N	Gambling Disorder		X²	Poker Player Type		X²
			GD	Non-GD		RMoney	Free	
Drink days/w	0-3	83	13	70	0.041*	38	45	2.022
			15.66%	84.34%		45.78%	54.22%	
	4+	17	3	14		11	6	
			17.65%	82.35%		64.71%	35.29%	
Binge drink	No	85	14	70	0.174	40	44	0.401
			16.67%	83.33%		47.62%	52.38%	
	Yes	16	2	14		9	7	
			12.50%	87.50%		56.25%	43.75%	
Use alcohol w/play	No	28	4	24	0.101	16	12	1.172
			14.29%	85.71%		57.14%	42.86%	
	Yes	71	12	59		32	39	
			16.90%	83.10%		45.07%	54.93%	
Use drug w/play	No	80	9	71	6.715	35	45	4.412
			11.25%	88.75%		43.75%	56.25%	
	Yes	20	7	13		14	6	
			35.00%	65.00%		70.00%	30.00%	
Use tobacco	No	59	9	50	0.060	25	34	2.529
			15.25%	84.75%		42.37%	57.63%	
	Yes	41	7	34		24	17	
			17.07%	82.93%		58.54%	41.46%	

*p < .05, ** p < .01

Logistic Regression

Gambling Disorder

The Full Model. In order to examine associations with gambling disorder, a logistic regression model was run with all variables in the model. The full model (table not included) included 93 cases in the analysis with seven cases missing. Block 0 accurately predicted 100% of the non-GD and 0% of the PEPG, with a total accuracy of 84.00%.

Block 1 accurately predicted 100.00% of all participants. The omnibus test for model coefficients was significant at .01 and the Nagelkerke R Square for the model was 1.0. The Hosmer-Lemeshow Test goodness of fit was statistically significant. Both of these metrics

suggest poor model fit. Additionally, the confidence intervals associated with the odds ratios of each independent variable were unacceptably wide, suggesting poor model fit. Given these results, the final model was run, which only used the independent variables that were significantly significant with GD at the bivariate level, similar to the research of Cunha et al. (2017, p. 55).

The Final Model. In order to examine associations with GD a logistic regression model was run with only the variables significant at the bivariate level. Those variables are poker player type, current age, and drink days per week. The final model (see Table 4.1) included 100 cases in the analysis with zero cases missing. Block 0 accurately predicted 0.00% of the PEPG and 100% of the non-GD with a total accuracy of 84.00%.

Block 1 accurately predicted 0.00% of the PEPG and 100.00% of the non-GD with a total accuracy of 84.00%. The omnibus test for model coefficients was not significant and the Nagelkerke R square for the model was .01. The Hosmer-Lemeshow Test goodness of fit was non-statistically significant. The confidence intervals associated with the odds ratios of each independent variable were reasonably narrow, suggesting acceptable model fit.

None of the independent variables were statistically significant with GD. However, when examining odds ratios, the variable with the largest odds ratio was drink days per week: four or more. Therefore, these respondents may be more likely to be a PEPG than those respondents who drink fewer days per week (OR=1.146). Interestingly, current age: under 35 (OR=1.077), and poker player type: real-money (OR=1.038) also have positive relationships with GD.

Table 4.1
Logistic Regression: Gambling disorder

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Poker Player Type	0.038	0.553	0.005	1	0.946	1.038	0.351	3.071
Current Age	0.074	0.592	0.016	1	0.901	1.077	0.338	3.433
Drink Days /Week	0.137	0.712	0.037	1	0.848	1.146	0.284	4.627
Constant	-1.724	0.445	15.006	1	0.000	0.178		

Poker Player Type

Full Model. In order to examine associations with poker player type, a logistic regression model was run with all variables in the model. The full model (table not included) included 93 cases in the analysis with seven cases missing. Block 0 accurately predicted 100.00% of real-money and 0.00% freeroll poker players, with a total accuracy of 49.00%.

Block 1 accurately predicted 95.70% of real-money poker players and 93.50% of freeroll poker players, with a total accuracy of 94.60%. The omnibus test for model coefficients was significant at .01 and the Nagelkerke R Square for the model was .82. The Hosmer-Lemeshow Test goodness of fit was statistically significant, indicating poor goodness of fit. Additionally, the confidence intervals associated with the odds ratios of each independent variable were unacceptably wide, suggesting poor model fit. Given these results, the final model was run, which only used the independent variables that were significantly significant with poker player type at the bivariate level, similar to the research of Cunha et al. (2017, p. 55).

Final Model. In order to examine associations with poker player type a logistic regression model was run with only the variables significant at the bivariate level. Those variables are gambling disorder, race, marital status, education, and family history of GD. The final model (see Table 4.2) included 100 cases in the analysis with zero cases missing. Block 0

accurately predicted 0.00% of the real-money poker players and 100.00% freeroll poker players, and with a total accuracy of 51.00%.

Block 1 accurately predicted 18.37% of real-money poker players and 88.24% of freeroll poker players, for a total accuracy of 54.00%. The omnibus test for model coefficients was not significant and the Nagelkerke R square was .01. The Hosmer-Lemeshow Test goodness of fit was not statistically significant, indicating a goodness of fit. The confidence intervals associated with the odds ratios of each independent variable were reasonably narrow, suggesting acceptable model fit.

None of the independent variables were statistically significant with poker player type. However, when examining odds ratios, the variables with the largest odds ratio included family history of GD: yes (OR=1.051), education: no college (OR=1.046), and race: non-Caucasian (OR=1.040). Therefore, these players may be more likely to be real-money players than freeroll players.

Table 4.2
Logistic Regression: Poker Player Type

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Gambling Disorder	0.028	0.583	0.002	1	0.962	1.028	0.328	3.220
Race	0.039	0.514	0.006	1	0.939	1.040	0.380	2.849
Marital Status	-0.019	0.433	0.002	1	0.965	0.981	0.420	2.292
Education	0.045	0.485	0.009	1	0.926	1.046	0.405	2.705
Fam Hx GD	0.050	0.493	0.010	1	0.919	1.051	0.400	2.761
Constant	-0.067	0.323	0.043	1	0.835	0.935		

CHAPTER 5
DISCUSSION

The purpose of this study was to compare, confirm, and extend the findings from real-money poker research regarding risk factors for GD, to a sample of freeroll poker players. As well as to take a snapshot of the experiences, beliefs, and challenges in an under-researched subgroup of poker players. To this end, this study had four goals. First, to discover the prevalence rate of GD in a sample of freeroll poker players. Second, to learn more about the pathway to and through freeroll poker. Third, to identify the player characteristics--sociodemographics, gambling history, behavioral addiction history, and substance addiction history--with higher odds of distinguishing between PEPG and non-GD players. Fourth, to identify the player characteristics with higher odds of distinguishing between freeroll poker players who were: (a) real-money players-those who self-reported they primarily play in real-money games as often or more than they play in free games, or (b) freeroll players-those who self-reported they primarily play in freeroll games. This study was successful in the first two goals, however, unsuccessful in the latter two goals.

Research Significance

The rate of professional treatment for GD is between seven and 12%, which is lower than for alcohol addiction (Slutske, 2006; Vimont, 2011). Gamblers Anonymous participation is also rare and often short-lived (Toneatto & Dragonetti, 2008). Further, people who develop GD with games that include an element of skill, such as poker and blackjack, are less likely to seek treatment, than the general gambling population (Wohl, Young, & Hart, 2005). If they do seek assistance, their treatment needs may be different due to the cognitive challenges of the skill element in poker. "It is relatively easy to communicate prevention messages to slot/VLT (virtual)

players because we can be clear and unequivocal about the role of randomness. The challenge lies in creating clear and useful messages that address the unique characteristic of the games, like poker, which contain an element of skill" (Kelly, 2006, p. 2). Further, "skill games such as poker or blackjack provide repeated small wins, following an intermittent positive reinforcement schedule" (Mitrovic & Brown, 2009, p. 490). This may be especially challenging for many to overcome (Wagenaar & Keren, 1988). For these reasons, "research needs to begin to focus on the development of early prevention and effective treatment programs for gambling disorders" (Shaffer & Martin, 2011, p. 502). The development of early preventions and effective treatments will be based on targeted research with subgroups of gamblers, such as freeroll poker players (Nower, 2007).

This study corroborated and extended some of the previous research findings for gamblers, poker players, and specifically freeroll poker players. At the core of this study, was the question about if respondents that identified as primarily real-money poker players might be different in some way from the respondents that identified as primarily freeroll poker players. The answer to that question appears to be yes, because real-money players are more likely to experience GD. Besides poker player type, two other variables were correlated with GD: current age, and number of drinking days per week. Further, race; marital status; education; and a family history of GD were are all correlated with the poker player type.

In the regression models, none of the independent variables were statistically significant. However, the odds ratios suggested, the variable drink days per week, had a positive relationship to GD. Further, the family history of GD variable had a positive relationship with poker player type.

Social Work Practice Implications

Behavioral economic studies show that using a cash substitute, like a credit card or poker chips, often changes the way the user thinks about the actual monitory value of those items. This research investigated if, while not losing money, these players may be experiencing challenges in their life due to freeroll poker. This study was conducted as an exploratory study, to identify not only the prevalence rate of GD, but to identify freeroll specific experiences, beliefs, and behaviors that may indicate problems similar to real-money gambling problems. The results of this study may be a needs assessment of sorts, and are intended to help inform social work practice with freeroll players, outline policy recommendations, and inform future research.

While not statically significant, many of the behavioral addiction history characteristics could be useful to therapists and other service providers who may not be familiar with freeroll poker players. Young people are especially vulnerable to free and freemium gaming and often their parents are not aware. As Cheng (2005) reported a parent saying, "I would rather have my son playing poker here or at one of his friend's homes than being out drinking and driving or doing drugs" (p. 1). In this and the pilot study, some 10% of the respondents reported they started gambling before their eight birthday. The results of this study could be used for educating parents and teachers about childhood gaming and gambling.

Further, GD is prevalent in college and especially for poker players. "According to Keith Whyte, executive director of the National Council on Problem Gambling reported gambling is almost omnipresent for the college population, and administrations don't do a good job of telling students how to get help, the same way they're sending the 'prevention and responsibility' message for alcohol, substance abuse, and date rape" (Cheng, 2005, p. 1).

The following study results could have implications for helping professionals that work with poker players. If this study was viewed as a needs assessment, the following responses indicate there may be a need for targeted assistance with this population.

Some 20% reported they started gambling in their college years. Other findings that might inform social work practice include: (a) the prevalence rate for GD was 16%; (b) 11% reported wanting to cut down on the amount of time they spend playing freeroll poker; (c) 42.00% reported spending real money to buy "free" poker chips; (d) 44.00% reported chasing their freeroll poker "losses"; (e) 46.00% reported freeroll poker was a gateway to real-money poker; (f) 77.00% reported they believe poker is a game of skill, not luck; and (g) 77.00% reported drinking alcohol while playing freeroll poker.

In terms of public policy, many of these freeroll players are experiencing problem similar to real-money online players. The number of free poker websites in general has grown enormously since 2002. These websites offer help, in terms of advice and tips, but they do not offer help for people experiencing problems related to freeroll gaming (Khazaal et al., 2011). Therefore, this research may help to inform public policy and the need for responsible gaming links to be offered on freeroll poker websites.

Future Research Implications

The more studies that are completed that explore under-researched populations the more accurate the knowledge will be (Gooding, & Tarrier, 2009). With targeted information, researchers are better able to address the current needs in a population and even anticipating future needs.

An accurate knowledge of the risk factors for gambling disorder provides an empirical basis for developing scientifically based public health policies that target this condition. In addition, such knowledge might be highly relevant for therapeutic interventions because the risk factors play a significant role in the development and maintenance of gambling disorder (Perese, Bellringer, & Abbott, 2005). The significance of these risk factors and the fact that problem gambling has not been thoroughly investigated, (i.e., certain aspects have been poorly studied, particularly the relational variables) underlines the importance of [our] study. (Cunha et al., 2017, p. 52)

This study is an exploratory study into the trends, beliefs, and experiences of freeroll poker players. In this vein, this study covered wide-ranging issues. Many of the categories and issues could be further investigated as their own research study. Specifically, further research is needed to collect more information about freeroll players: chasing behavior, spending real money to buy free chips, and wanting to cut down on the amount of time playing freeroll poker

Limitations

This exploratory study's main purpose was to take a snapshot of the experiences, beliefs, and challenges in a small group of freeroll poker players. This, as with most exploratory studies is intended as jumping off points for future research, as opposed to an end itself and the results may not be found in other samples.

One main limitation of this study is the way in which the participants were recruited. It was not random. Social media and poker clubs are webs of interconnections as is especially the case with snowball sampling. The high level of respondents with college degree (42.00%), master's degrees (26.00%) and even PhD, MD, or JDs (8.00%) is not representative of the general population. Also the current age of the respondents was unusual since 70.00% of them were over 34 years old. What research exists, suggests that demographics in a freeroll poker social group may be consistent with the local demographics (Bradley & Schroeder, 2009).

This anomaly is likely a result of the researcher using her social media as part of the snowball sampling, as well as it being shared in social networks in a college town, where

advance degrees are more prevalent. In addition, requests made for respondents to let others know of the study means that certain participants were connected to other participants whether through friendships, family relations, or internet associations. Finally, some of the questions were written with room for interpretation, so the responses may not be accurate.

To address these limitations, a larger pool of freeroll poker players could be surveyed. Many larger brick-and-mortar poker clubs in more populated cites could provide the surveys to their members. Further, there are online freeroll poker clubs with thousands and even millions of members. If a large online poker club provided to a link the study to their members, the sample size and diversity of friend groups could be larger.

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APPENDICES

Appendix A

The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
Diagnostic Criteria: Gambling Disorder (section 312.31)
A. Persistent and recurrent problematic gambling behavior leading to clinically significant
        impairment or distress, as indicated by the individual exhibiting four (or more) of the
        following in a 12 month period:
a. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
b. Is restless or irritable when attempting to cut down or stop gambling.
c. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
d. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling
        experiences, handicapping or planning the next venture, thinking of ways to get with
        which to gamble).
e. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
f. After losing money gambling, often returns another day to get even ("chasing" one's losses).
g. Lies to conceal the extent of involvement with gambling.
h. Has jeopardized or lost a significant relationship, job, or educational or career opportunity
        because of gambling.
i. Relies on others to provide money to relieve desperate financial situations caused by gambling.
B. The gambling behavior is not better explained by a manic episode.

Specify if:
     Episodic: Meeting diagnostic criteria at more than one time point, with symptoms subsiding
        between periods of gambling disorder for at least several months.
     Persistent: Experiencing continuous symptoms, to meet diagnostic criteria for multiple
        years.
Specify if:
     In early remission: After full criteria for gambling disorder were previously met, none of the
criteria for gambling disorder have been met for at least three months but for less than 12
months.
     In sustained remission: After full criteria for gambling disorder were previously met, none
of the criteria for gambling disorder have been met during a period of 12 months or longer.
     Specify current severity: Mild: 4-5 criteria met. Moderate: 6-7 criteria met. Severe: 8-9
criteria met.

Appendix B
How to Play Texas Hold'em Poker

How to Play Texas Hold'em Poker

It is often said, "Poker takes a minute to learn but a lifetime to master" (Hardy, 2006). This statement suggests it is relatively simple to learn the basic rules, but it is quite difficult to master the mathematical and interpersonal complexities of high-level gameplay. To understand the game one must understand the differences between tournament poker and cash poker.

Poker strategy is thought to be so versatile that it has even been taught to young people at universities (Johnson, 2007) and high schools (Sieff, 2010). In 2008, Shead et al. found that among poker players (N=319) Hold'em was the most popular variation at 91.8% of players (p. 173). Kadlec (2010) found Hold'em accounts for 87% of all online poker play.

Hold'em is played with as few as two and as many as ten people at a given table. Before each hand, two players are required to pre-bet small amounts of money, known the *big* and *small blind*s. The *big blind* is often double the *small blind*, but this is not mandatory. The blinds rotate around the table such that each player must pay each of them an equal number of times. The blinds function as an initial bet that players might choose to meet (*call*), increase (*raise*), or drop out (*fold*) of the hand without risking any of their chips. After the blinds are posted, the hand begins when each player is dealt two cards face down or, '*in the hole'*. Players bet or fold based on their evaluation of the strength of their *hole cards*. This round of betting is followed by *the flop,* in which the dealer places three *community cards* face up in the middle of the table. A second round of betting follows. Another *community card*, the *turn card,* is dealt, followed by another round of betting. The final *community card*, called the *river,* is dealt, followed by one last round of betting. If at least two players are still in the hand, they turn over their two *hole*

cards and the best five-card combination claims the chips (Hardy, 2006). The hand does not need to progress to the *river* if all but one player folds their cards, surrendering the chips. The mechanics of Hold'em are the same for both tournament and cash poker games.

Tournament and Cash Poker

`   Despite identical gameplay mechanics, there are several differences between tournament and cash poker. Tournaments are timed, with the blinds increasing at regular intervals, such that *short-stacked* players (those with very few chips compared to the average player) are forced out. "In tournament poker, you can't go back to the bank; when your chips are gone, they're gone" (Kadlec, 2010, para. 15). Tournament poker naturally lends itself to freeroll play. This is because the negative consequence of poor playing [or bad luck] is eliminated from the game, since there is no tangible loss of consideration. In a real-money poker tournament, the entrants never risk losing more than the price of admission.

In traditional "cash" games, players may lose all their chips in one hand and then immediately re-buy into the same game (if they have more funds to buy more chips). The cheapest real-money cash game typically offered at casinos is a $1/$2 game, where $1 is the cost of the *small blind* and $2 is the cost of the *big blind*; it is recommended to buy into a game with at least 100 times the *big blind,* $200 in this example. In contrast, the cheapest tournaments at lower end casinos are usually between $30 and $60. "Poker tournaments are now a very popular form of gambling that is more socially acceptable than many other traditional gambling activities. It is so socially acceptable that there is some controversy as to whether or not poker tournaments are classed as gambling in the traditional sense" (Mitrovic & Brown, 2009, p. 489). There are several unique features of tournament play, with their own advantages and challenges.

In cash poker, the chips on the table represent the actual amount of money the player has invested in the game. In tournament play, that is not usually the case, as there is a set buy-in amount, which is the total expenditure for participation. For example, a person might spend $30.00 to buy entrance into a tournament and receive 4,000 "dollars" in tournament chips. The tournament organizers publish the entry fee amount, blind structure, and the payout schedules. This information provides much more control for players than cash games (Reber, 2012, p. 65). In tournaments, the casinos make money from registration fees and non-game related sales such as merchandise, hotel rooms, and the like. In cash games, the house takes a percentage of each pot. In a $1/$2 game, for example, the house usually takes between 3% and 5% to a maximum of $5.00; this is known as the *rake*. In contrast to every other casino game, the house makes its money not from players losing, but from the total amount in the pot, regardless of who wins or loses.

Appendix C

Pilot Study: Consent Letter

Dear Participant,

You are invited to participate in a research study entitled "Poker Players: Money for nothing and chips for free. Exploration into the directional relationship between freerolls and real-money poker games" conducted by Leslie Herbert from the School of Social Work at The University of Georgia (542-3364) under the direction of Dr. Holosko, School of Social Work, The University of Georgia (542-3364).

Please read the following statements about this study.

By completing the survey, you are agreeing to participate in the research and you understand that your participation is voluntary. You can refuse to participate or stop taking part at any time without giving any reason, and without penalty or loss of benefits to which you are otherwise entitled. If you decide to stop or withdraw from the study, the information /data collected from or about you up to the point of your withdrawal will be kept as part of the study and may continue to be analyzed.

The reason for this study is to learn more about freeroll poker players. Participation should take less than 15 minutes. If you volunteer to take part in this study, you will be asked to do the following things:

1. Answer questions about how you started to play poker
2. Answer questions about alcohol use
3. Answer questions about motivations for playing poker

There are no direct benefits or compensation to you for completing this survey. However, there are benefits to mankind. This research will be instrumental in filling the gaps including prevalence rates of problem gambling and risk factors for freeroll players. Second, the results of this study may be used in prevention and educational materials for providers of freerolls and

consumers. Third, there is a need for more targeted interventions and therapies for problem poker players. The results of this study may inform modalities of treatment in this area.

There are two possible risks associated with completing this survey. The first is the risk to confidentiality and the second is the risk of emotional discomfort. Both risks will be addressed below:

1. The results of this participation will be confidential, and will not be released in any individually identifiable form, unless otherwise required by law. No individually identifiable information about you, or provided by you during the research, will be shared with others without your written permission. However, there is always a limit to the confidentiality that can be guaranteed if you submit the survey through the Internet. Therefore, you may drop your survey off at [REDACTED} during poker tournament times (see poker club website REDACTED) or you may mail your completed survey to Leslie Herbert, 310 East Campus Rd, Athens GA, 30602.

2. You may experience some discomfort or stress while answering questions about addictive behavior. This risk will be addressed in the following way. The researcher will provide resources to you including the contact information for the National Council on Problem Gambling at 800-522-4700.
The investigator will answer any further questions about the research, now or after you complete the survey.

Thank you for your time,

Leslie R. Herbert

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu.

Appendix D
Pilot: Study Survey

A. Author Generated Questions Part 1

Please answer the following questions: True or False

1. I learned to play poker in freeroll games	True	False
2. I play real-money poker because I learned in free poker games	True	False
3. I play free poker because I learned in real-money games	True	False
4. Free poker gave me the confidence to play real-money games	True	False
5. I would play more real-money games if cardrooms were more available	True	False
6. I would play more freeroll games if they were more available	True	False
7. I would play real-money poker online if it was more available	True	False
8. The main reason I am a poker player is because of freeroll games	True	False
9. Poker has negatively affected my work or school	True	False
10. Poker has negatively affected at least one relationship	True	False
11. Poker has negatively affected my finances	True	False
12. I want to cut down the amount of time I spend playing poker	True	False
13. As a child, I saw my relatives gamble regularly	True	False
14. Somebody in my family has a gambling addiction	True	False
15. Somebody in my family has a drug or alcohol addiction	True	False
16. I didn't start with free poker. But I did start with penny poker.	True	False
17. I first played free or penny poker then moved to higher stakes	True	False
18. I have played free poker online or in-person	True	False
19. Poker is a game of luck	True	False

Pilot: Study Survey Continued
B. Author Generated Questions Part 2

Please write the correct answers to the following questions, to the best of your knowledge.

1. As I remember, I first gambled when I was about __ years old.

2. As I remember, my first type (any kind) of gambling was__.

3. As I remember, the people or person that first introduced me to gambling was my__.

4. As I remember, at first I usually *(Check one)* • Won (or) • Lost.

5. As I remember, I first played poker when I was about __years old.

6. As I remember, I started playing poker because __.

7. As I remember, when I first started playing poker I usually *(Check one)* • Won (or) • Lost.

8. I started playing poker *regularly* when I was about __years old (or) • I never played poker regularly.

9. Now when I play poker I usually (Check one) • Win (or) • Lose.

Pilot: Study Survey Continued

The Mental Health Index-5 (MHI5)
C. Please read each question and check the box by the
    ONE statement that best describes how things have
    been *FOR YOU* during the past month.
  There are no right or wrong answers.
	None of the Time	A Good Bit of The Time	A Little of the Time	Some of the Time	Most of the Time	All of the Time

1. During the past month, how much of the time were you a happy person?	•	•	•	•	•	•
2. How much of the time, during the past month, have you felt calm and peaceful?	•	•	•	•	•	•
3. How much of the time, during the past month, have you been a very nervous person?	•	•	•	•	•	•
4. How much of the time, during the past month, have you felt downhearted and blue?	•	•	•	•	•	•
5. How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up?	•	•	•	•	•	•

Pilot: Study Survey Continued

D. Author Generated Questions Part 3

Please answer the following questions.

1. • Male • Female

2. • Single • Married • Separated • Divorced • Widow/ Widower

3. • Have minor children living with you • Have adult children • Have no children

4. a. Age_____   4.b. Race_____   4.c. Nationality_____

5. • Unemployed • Under-Employed • Employed • Retired

6. Weekly Income $_____

7. How much money do you typically spend a day (specifically for chip-ups) playing free poker? $ ___.

8. Do you drink alcohol while playing free poker?

Always Sometimes Never

9. Do you consume a mood altering substance (other than alcohol) while playing poker?

Always Sometimes Never

10. *Please circle one:*

No High School High School Some College College Degree Graduate Degree

E. Author Generated Questions Part 4

For **E1 & E2** check *one* each line for **E3** check *all* that apply.

Please check the boxes that *best* describe you.

E1. I *first* played poker…

(pick one from **each** line)

1) • Online *(or)* • In-person

2) • For free *(or)* • For money

3) • With friends/family *(or)* • With strangers/acquaintances

E2. Now, I play poker primarily…

(pick one from **each** line)

1) • Online *(or)* • In-person *(or)* • Both equally

2) • For free *(or)* • For money *(or)* • Both equally

3) • Tournament *(or)* • "Real-money" game *(or)* • Both equally

4) • With friends/family *(or)* • With acquaintances/strangers

E3. I play free poker…

(check *ALL* that apply for the

following three items)

1) • To sharpen skills for later real-money games *(and/or)*

2) • To socialize with other regular players *(and/or)*

3) • For status and prestige of being a "regular player"

Pilot: Study Survey Continued

4. What is the most money you have ever lost at poker in one day? $_____

5. What is the most money you ever won at poker in one day? $_____

6. In what state do you live? _____

7. How long does it take you to travel to an *in-person real-money* poker game?

• 0-30mins • 30mins-1 hour • 2 hours • 3 hours • 4 hours • 5+ hours • Don't know

8. How long does it take you to travel to an *in-person free* poker game?

• 0-30mins • 30mins-1 hour • 1-2 hours • 2-3 hours • 3-4 hours • 4+ hours • Don't know

F. Author Generated Questions Part 5

*Please indicate how often you have played the following types of gambling activities **within the last year:***

Favorite Traditional Game	Less than Monthly (5)	Daily Never (4)	Weekly (3)	Monthly (2)	(1)
1. Bet on horses, dogs or other animals?	_____	_____	_____	_____	_____
2. Bet on the outcome of a sporting event?	_____	_____	_____	_____	_____
3. Played dice for money?	_____	_____	_____	_____	_____
4. Played the lotteries?	_____	_____	_____	_____	_____
5. Played bingo for money?	_____	_____	_____	_____	_____
6. Played slots for money?	_____	_____	_____	_____	_____
7. Bet on bar games like pool or darts?	_____	_____	_____	_____	_____
8. Bet on games you're playing like bowling or golf?	_____	_____	_____	_____	_____
9. Gambled on commodities/high risk stocks?	_____	_____	_____	_____	_____
10. Played poker online for money?	_____	_____	_____	_____	_____
11. Played video poker for money?	_____	_____	_____	_____	_____
12. Played free online poker?	_____	_____	_____	_____	_____
13. Played poker in-person for free?	_____	_____	_____	_____	_____
14. Played poker for money with friends?	_____	_____	_____	_____	_____
15. Played poker at a casino?	_____	_____	_____	_____	_____
16. Other game? _____	_____	_____	_____	_____	_____
17. Other game? _____	_____	_____	_____	_____	_____

Pilot: Study Survey Continued

H. Problem Gambling Severity Index (PGSI)

Please check the box that *most accurately* answers the questions.

	Never	Sometimes	Most of the Time	Almost Always
1. In the last 12 months, when you gambled, how often did you go back another day to try to win back the money you lost?	•	•	•	•
2. In the last 12 months, how often have you felt that you have a problem with gambling?	•	•	•	•
3. In the last 12 months, how often have you felt guilty about the way you gamble or what happens when you gamble?	•	•	•	•
4. In the last 12 months, how often have you needed to gamble with larger amounts of money to get the same feeling of excitement?	•	•	•	•
5. In the last 12 months, how often has gambling caused you any health problems, including stress or anxiety?	•	•	•	•
6. In the last 12 months, how often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?	•	•	•	•
7. In the last 12 months, how often have you bet more than you could really afford to lose?	•	•	•	•
8. In the last 12 months, how often have you borrowed money or sold anything to get money to gamble?	•	•	•	•
9. In the last 12 months, how often has your gambling caused any financial problems for you or your household?	•	•	•	•

Pilot: Study Survey Continued

I. Alcohol Use Disorders Identification Test (AUDIT)

Please circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?

☐ Never ☐Monthly or less ☐2-4 times a month ☐2-3 times a week ☐4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day when drinking?

☐1 or 2 ☐3 or 4 ☐5 or 6 ☐7 to 9 ☐10 or more

	Daily or Almost Daily	Weekly	Less than Monthly	Monthly	Never
3. How often do you have six or more drinks on one occasion?	•	•	•	•	•
4. During the past year, how often have you found that you were not able to stop drinking once you had started?	•	•	•	•	•
5. During the past year, how often have you failed to do what was normally expected of you because of drinking?	•	•	•	•	•
6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?	•	•	•	•	•
7. During the past year, how often have you had a feeling of guilt or remorse after drinking?	•	•	•	•	•
8. During the past year, have you been unable to remember what happened the night before because you had been drinking?	•	•	•	•	•

9. Have you or someone else been injured as a result of your drinking?

☐No ☐Yes, but not in the past year ☐Yes, during the past year

10. Has a relative or friend, doctor or other health worker been concerned about your

drinking or suggested you cut down?

☐No ☐Yes, but not in the past year ☐Yes, during the past year

Appendix D Continued

G. Gambling Passion Scale
Write your favorite gambling game: _____
 (only one game please.)

Please indicate your level of agreement with each of the items about the game you selected.

Not agree atall Very slightly agree Slightly agree Moderately agree Mostly agree Strongly agree Very strongly agree

1. This gambling game allows me to live memorable experiences.
 2. I couldn't live without this gambling game.
 3. I am emotionally dependent on this gambling game.
 4. Playing this gambling game is in harmony with the other activities in my life.
 5. I have a tough time controlling my need to play this gambling game.
 6. Things that I am discovering with this gambling game allow me to appreciate it even more.
 7. I have almost an obsessive feeling for this gambling game.
 8. This gambling game reflects the qualities that I like about myself.
 9. This gambling game allows me to live a variety of experiences.
10. The urge is too strong, I cannot help myself from playing this gambling game.
11. I spend a lot of time playing this gambling game.
12. I like this gambling game.
13.This gambling game is important for me.
14. This gambling game is a passion for me.

J. Author Generated Questions: Part 6

Not agree atall Very slightly agree Slightly agree Moderately agree Mostly agree Strongly agree Very strongly agree

1. Religion/spirituality is important to me

2. Poker is a game of skill not luck

Appendix E
Full Study: Consent Letter

Q1.   Informed Consent Announcement

Dear Participant,
        You are invited to participate in a research study entitled "Money for nothing and chips for free: An exploration into the pathways, risk factors, and motivations for playing freeroll poker" conducted by Leslie R. Herbert from the School of Social Work at The University of Georgia (706-542-3364) under the direction of Michael J. Holosko, Ph.D., from the School of Social Work at The University of Georgia (706-542-3364).

Please read the following statements about this study.

        By completing the survey, you are agreeing to participate in the research and you understand that your participation is voluntary. You can refuse to participate or stop taking part at any time without giving any reason, and without penalty or loss of benefits to which you are otherwise entitled. You may refuse to participate by closing the survey at any time. If you decide to stop taking the survey, the answers submitted will be kept as part of the study and may continue to be analyzed. The researchers are not offering any compensation for participating in this study.
        The reason for this study is to learn more about freeroll poker players. Participation should take less than 10 minutes. If you volunteer to take part in this study, you will be asked to do the following things:
        1) Answer questions about how you started to play poker
        2) Answer questions about alcohol use
        3) Answer questions about motivations for playing poker
        Possible benefits for the individual respondent and mankind for participating in the survey are as follows:

        This research may be instrumental in increasing knowledge about prevalence rates of problem gambling and risk factors for freeroll players.

        The results of this study may be used in prevention and educational materials for providers of freerolls and consumers.

        There is a need for more targeted interventions and therapies for problem poker players and the results of this study may inform modalities of treatment in this area.

        There are two possible risks associated with completing this survey. The first is the risk to confidentiality and the second is the risk of emotional discomfort. Both risks will be addressed below:

        1. The results of this participation will be confidential, and will not be released in any individually identifiable form, unless otherwise required by law. No individually identifiable information about you, or provided by you during the research, will be shared with others.

However, there is always a limit to the confidentiality that can be guaranteed when submitting a survey through the Internet*.

       2. You may experience some discomfort or stress while answering questions about addictive behavior. If this is the case, please contact the National Council on Problem Gambling 1-800-522-4700 (www.ncpgambling.org) or contact the Substance Abuse and Mental Health Services Administration at 1-800-662-HELP (www.findtreatment.samhsa.gov).

       Thank you for your time,

       Leslie R. Herbert

       Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu.

Appendix F
Full Study: Survey

Q2. My favorite traditional game is____.
(Choose one game please, if not included please select Other and write the name of the game in the field provided at the end of the survey.)
- ☐ Betting on bar games like pool or darts, etc.
- ☐ Betting on horses, dogs or other animals
- ☐ Betting on games I was playing like basketball, bowling, golf, etc.
- ☐ Bingo
- ☐ Commodities/high risk stocks
- ☐ Craps
- ☐ Dice
- ☐ Lottery
- ☐ Pitching pennies/quarters
- ☐ Poker
- ☐ Slots
- ☐ Sports betting
- ☐ Tonk
- ☐ Other

A. Established Instrument: Gambling Passion Scale

Q 3. Please indicate your level of agreement with each of the items about the game you selected above.

Not Agree at All	Very Slightly Agree	Slightly Agree	Moderately Agree	Mostly Agree	Strongly Agree	Very Strongly Agree

1. This game allows me to live memorable experiences.
2. I couldn't live without this game.
3. I am emotionally dependent on this game.
4. Playing this game is in harmony with the other activities in my life.
5. I have a tough time controlling my need to play this game.
6. The new things that I am discovering with this game allow me to appreciate it even more.
7. I have almost an obsessive feeling for this game.
8. This game reflects the qualities that I like about myself.
9. This game allows me to live a variety of experiences.
10. The urge is too strong, I cannot help myself from playing this game.
11. I spend a lot of time playing this game.
12. I like this game.
13. This game is important for me.
14. This game is a passion for me.

Q 4. I have gambled in some way at least once.   ☐ True   ☐ False

Skip To: Q13 If I have gambled in some way at least once. = False

Full Study: Survey Continued

B. Established Instrument: The Brief Bio-Social Gambling Screen

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Q 5. During the past 12 months, have you become restless, irritable or anxious when trying to stop/cut down on gambling? ☐Yes ☐No

Q 6. During the past 12 months, have you tried to keep your family or friends from knowing how much you gambled? ☐Yes ☐No

Q 7. During the past 12 months did you have such financial trouble as a result of your gambling that you had to get help with living expenses from family, friends or welfare? ☐Yes ☐No

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Q 8. As I remember, I *first started gambling* when I was about _____ years old.
☐ 0-8 years old ☐ 9-12 years old ☐ 13-16 years old ☐ 17-20 years old ☐ 21-24 years old ☐ 25-34 years old
☐ 35-44 years old ☐ 45-55 years old ☐ 55+ years old ☐ I've never gambled

Q 9. As I remember, the people or person that *first* introduced me to gambling was a(n) _____.
☐ Friend ☐ Parent ☐ Sibling ☐ Grandparent ☐ Boyfriend/girlfriend/Spouse ☐ Other relative
☐ Other non-relative (person I knew well) ☐ Other non-relative (person I didn't know well)
☐ I've never gambled

Q 10. When I was a beginner, at ANY kind of gambling, I was surprised at how often I did well.
☐ True ☐ False ☐ No, I was about average.

Q 11. When I have a losing gambling session, I play again specifically to win back the money I lost.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often ☐ All of the time

Q 12. I have played poker for real money.   ☐ True   ☐ False

Q 13. I have played FREE POKER online or in-person.   ☐ True   ☐ False
 (A free poker game is any poker game where you do not have to pay any real money to be to play, even if you have the option of buying extra chips for real money.)

Q 14. I learned to play poker in freeroll games, now I play poker for real money, too.   ☐ True   ☐ False

Q 15. When I have a losing FREE POKER session, I play again specifically to win back the chips I lost.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often ☐ All of the time

Q 16. I want to cut down the amount of time I spend playing FREE POKER.   ☐ True   ☐ False

Q17. I have spent real money to buy chips for FREE POKER.   ☐ True   ☐ False

Q18. As a child, I saw _____ of my relatives gamble regularly.
☐ None ☐ At least one ☐ A few ☐ About half ☐ Almost all

Q 19. ____ in my family has had a gambling problem.
☐ None ☐ At least one ☐ A few people ☐ About half ☐ Almost all

Q 20. _____ in my family has had a drug or alcohol problem.
☐ None ☐ At least one ☐ A few ☐ About half ☐ Almost all

Full Study: Survey Continued

Q 21. I play FREE POKER…(Please check ALL that apply)
☐ To sharpen skills for later real money games
☐ To socialize with other regular players
☐ For status and prestige of being a "regular player"
☐ None of these reasons

Q 22. Why do you play FREE POKER? _____.
(Qualitative question)

Q 23. I play poker primarily_____.
☐ With friends or family
☐ With acquaintances
☐ With strangers

Q 24. I mostly play_____.
☐ Free poker
☐ Real-money poker
☐ Both equally

Q 25. Poker is a game of skill not luck.   ☐ True   ☐ False

Q 26. How often do you have a drink containing alcohol?
☐ Never
☐ Once a month
☐ Once a week
☐ 2-3 times a week
☐ 4 or more times a week

Q 27. How many standard drinks containing alcohol do you have on a typical day when drinking?
☐ 1 or 2
☐ 3or 4
☐ 4or 6
☐ 7to 10
☐ 10 or more

Q 28. I drink alcohol while playing poker.
☐ Most of the time ☐ Sometimes ☐ Never

Q 29. I use a tobacco product. (Check ALL that apply)
☐ Cigarette ☐ E-cigarettes ☐ Chew or snuff ☐ Cigar or pipe ☐ Never

Q 30. Religion/spirituality is important to me.
☐ Not true ☐ Somewhat true ☐ Very true

Q31 Age
☐ 18-20 ☐ 21-24   ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65-74 ☐ 75-84 ☐ 85+

Q 32. I am a veteran.   ☐ True   ☐ False

Full Study: Survey Continued

Q33 I have___ (Pick all that apply).
☐ Minor children living with me full-time
☐ Minor children living with me part-time
☐ Adult children
☐ No children

Full Study: Survey Continued
Q 34. Gender
☐ Male ☐ Female ☐ Other

Q 35. Education
☐ Some high school ☐ High school ☐ Some college ☐ College ☐ Master's degree ☐ Ph.D., M.D., J.D.

Q 36. I am a US citizen. ☐ True ☐ False

Q 37. Citizenship Country___.

Q 38. I live in ____ state.

Q 39. Marital Status
☐ Single ☐ Married ☐ Separated ☐ Divorced ☐ Widow/Widower

Q 40. Race
☐ Asian African American ☐ Caucasian ☐ Hispanic ☐ Native American ☐ Pacific Islander ☐ Other

Q 41. Employment
☐ Unemployed ☐ Under-Employed ☐ Employed ☐ Retired Student ☐ Stay at Home Caregiver

Q 42. I use mood altering substance (other than alcohol) while playing poker.
☐ Most of the time ☐ Sometimes ☐ Never

Q 43. While playing poker I use _____. (Select ALL that apply.)
☐ Marijuana ☐ ADHD Medication ☐ Cocaine ☐ Other

Q 44. Where did you connect with this survey? Facebook, listserv, etc...?

Q 45. Is there anything else you would like the researchers to know that was not included in the survey?
If so, please feel free to write it below.