



Farewell to Two Beloved Colleagues: Their Legacy Lives On

By Jeffrey Derevensky & Rina Gupta, *International Centre for Youth Gambling Problems and High-Risk Behaviors*

Unlike many other fields of study, the number of researchers in gambling studies - while growing - still remains very small. We continue to look for leadership and knowledge from many of our early pioneers in the field. Within the past month, we have lost two great and distinguished pioneers of the field; Dr. William "Bill" Eadington and Dr. Durand "Dewey" Jacobs. They were both highly supportive of our work at the Centre, great colleagues, good friends and were highly instrumental in shaping our work and convincing us to remain in the field.

As in most fields, gambling studies became a legitimate field of study and way of helping people with gambling addictions because of the wisdom,



Dr. William "Bill" Eadington

Bill had a prolific career at the University of Nevada Reno where he founded the Institute for the Study of Gambling and Commercial Gaming. He wrote extensively on issues related to the social and economic impacts of gaming and served as a consultant and advisor for governments, Universities and corporations. In 1974, he

organized what is now the largest international meeting of researchers; the International Conference on Gambling and Risk Taking. Held every three years, many of us will gather in Las Vegas for the 15th Conference to learn from each other and help honour Bill's lifetime achievements. For many of us, the highlight of the conference was to chat with Bill, to listen to his vision as to where the field was going, and to hear what the future held for the industry, researchers and clinicians alike. Bill held the Philip Satre Chair of Gaming Studies at the university, was a visiting Professor at a number of universities, was a Past President of the National Council on Problem Gambling and won numerous academic and corporate awards. In addition to receiving an honorary doctorate at the University of Macau in 2011, he was recently inducted into the American Gaming Association's Gaming Hall of Fame with a special achievement award for Gaming Education. In 2011, many of us had the distinct honour to publish a tribute to Bill and 'his' conference in UNLV's Gaming Re-

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search and Review Journal. To read Bill's reflections and insights was once again so inspiring. His writings will continue to be read by generations of students. He was a great mentor to many of us and will be sadly missed by his supportive family, friends and colleagues. As Alex Blazczynski noted in his tribute to Bill, "...for over forty years.[Bill] made a substantive contribution to commercial gambling not only in respect to influencing legislation and economics, but also in placing gambling at the forefront of scientific inquiry, and in attracting, mentoring and stimulating many other researchers into the field."



Dr. Durand "Dewey" Jacobs

Dewey Jacobs, like Bill, received many honours and accolades throughout his career as a psychologist. He was the Chief of Psychology at four different VA Hospitals, Professor of Psychiatry at Loma Linda University Medical School, held academic appointments at 12 Universities,

was a Past President of the California Psychological Association, and received career awards from the American Psychological Association and the National Council on Problem Gambling including the Herman Goldman Foundation Award for his dedication, support, and continuing research efforts highlighting the consequences of compulsive gambling on families and youth." In 1972 Dewey was instrumental in establishing the first inpatient treatment program for compulsive gamblers and in 1982 he published his General Theory of Addictions, a ground breaking model for understanding and treating addictive patterns of behavior. He was honoured by Harvard Medical School's Division on Addiction for his "lifelong contributions to the field of youth gambling," our Centre for "pioneering contributions to the field of youth gambling" and by the University of Nevada for "lifelong contributions to gambling research and policy." He focused much of his subsequent work on understanding the underlying risk factors for the treatment and prevention of high-risk behaviors. His accomplishments and legacy live on in

the many lives he deeply touched through his guidance, caring, counselling, teaching, mentoring, research, leadership and good nature.

Dewey eventually retired from the VA so he "could concentrate on continuing his life's work of helping people, sharing his knowledge and impacting the next generation of researchers." Like Bill, he travelled the globe always sharing his expertise and learning from others. He always gave freely of his time, shared his knowledge and was an outstanding mentor, devoted husband, father, grandfather, great-grandfather and friend to many. Those of us who were fortunate to have had the opportunity to spend time with Dewey will be forever touched by his wisdom, generosity and kindness.

The field has lost two great pioneers in such a short time. Their legacy will live on, they will be sadly missed, and will always be remembered. While we have lost two great friends and colleagues, we have all been enriched and are better because they shared their lives with us.

Jeff Derevensky & Rina Gupta

Personal Reflections...

I had the great fortune to share and exchange ideas with Bill many, many times in far away lands. He was a great communicator and so insightful, always predicting the next wave of gambling research. I always learned so much from him. Our very first presentation was at Bill's international conference in Las Vegas. While new to the field, he welcomed both Rina and myself with open arms, spending time with us, sharing his insights and encouraging us to continue what has been our work for over two decades. He was a great scholar, a gentleman and someone who I could always call upon for an answer to one of my 'burning' questions. He easily made the transition and traversed between the academic and corporate world. No one has had a greater impact in both areas. Throughout the world, his international leadership, expertise, and insight was well known. He taught us how to talk to legislators and transformed gambling studies into a reputable academic area worthy of study.

It was a great honour to be able to call Bill a mentor, colleague and friend. I join the large group of people who shall miss him.

As a child psychologist, when I first entered the field of gambling studies, I was drawn to the early works of Howard Shaffer, Rachel Volberg, Henry Lesieur and Dewey Jacobs. Their writings were informative, inspiring, and thought provoking. I had the great fortune to be invited to the First Think Tank on Youth Gambling (1995), organized by Howard Shaffer and the Division on Addictions, at the Harvard Medical School. This meeting predated the Internet and as a result I had no idea as to how to recognize these great scholars whose articles I had read. Being somewhat lost and not knowing how to locate the Harvard Medical School, I asked a fellow elevator traveller and his wife if they had any idea as to the directions. The kind gentleman said he too was walking in the same direction and asked if I would like to accompany him. On our short voyage, he inquired why I was going to the Medical School, asking me lots of questions and encouraging me to keep studying "that important topic," without ever revealing that not only was he going to the Think Tank but that he was being honoured for his lifelong achievements in the study of youth gambling. Such was the humility of my dear friend Dewey Jacobs.

Dewey always encouraged both Rina and myself to mentor the next generation, "give them time and be patient." The tributes that were posted on the list serv after his passing attest to the many, many grateful researchers, clinicians, treatment providers and students with whom he spent countless hours. I was truly one of the lucky ones although I, along with many others, regret not having spent more time with him. I spent many hours with his loving and devoted wife, Norie, waiting for Dewey to go to dinner because there was a line of young people anxious to meet him, shake his hand, learn from him and tell him how important he was in their trying to help others. Always, apologetic for making Norie and I wait, he said that it was important to share our knowledge and help guide people to acquire new knowledge.

Dewey was so much more than just a pioneer and mentor. He was our Centre's (and my) biggest supporter, willing to help in any way possible. His writings inspired us to learn more from a basic and applied research perspective while strongly encouraging us to apply our findings in our clinical practice, to use this information to develop effective prevention initiatives, to help impact public policy, and to be a mentor to the next generation of students. Our successes were his successes.

Throughout one's life you meet many people who help shape your life. Dewey played and instrumental role in helping shape mine. He encouraged me when I was down, always inspiring me. I have lost a great mentor, colleague and friend but his legacy will live on in our work and in our hearts.

- Jeff Derevensky -

2013 has marked the departure of two very special beings who were so incredibly dedicated to our field.

My first experience with Bill Eadington was at my first International conference many years ago while still a graduate student. Not quite clear on who he was at that moment, I remember watching him give a talk addressing both the academic and industry communities. He talked about the importance of everyone working together toward common goals. Everything he said made so much intuitive sense to me. Until that moment and in my naiveté, I was under the impression that one needed to sit on one side of that fence; Industry people and researchers belonged to separate camps. I remember thinking - who is that brilliant man? Bill's words and philosophy stayed with me and influenced, very much, the way I was to conduct myself in my professional career. I would have small conversations with him here and there over the years, always so informative. I felt quite privileged that he would take the time to speak with me.

One year, we were both to speak at a conference in Zambia and I had the great opportunity to have more than just a few moments with Bill. We spoke for hours, about our research, the direction of the field, and the responsibility that people like ourselves held to ensure the wellbeing of people, especially youth. He was so kind, so soft spoken, so wise. I felt so privileged to have been invited to such a wonderful “meeting of the minds” in Zambia, but even more privileged to have had that invaluable time with Bill. We lost a tremendous force the day Bill passed away. I am terribly saddened by his untimely departure, and am in awe of how diligently he worked until the end of his days. His influence was so great, that his work and passion will be carried forward by others. Bill, I thank you very much for the wisdom you have shared with me. I wish Margaret and his family much healing and comfort.

My relationship with Durand Jacobs also stems from my student days. When I was choosing a dissertation topic, I wanted to conduct research that would “make a difference”. I had tossed around several ideas, none of which I felt fit the bill. I had been scouring the literature on addiction and youth. My attention kept being drawn to this very simple yet very intuitive theory of how and why addiction happens. The clinician in me knew that this theory warranted closer attention. It had been around in the literature for many years, but no one ever set out to validate it. I believed that doing so would have implications for treatment and research. So I wrote up a research proposal on testing Dewey’s General Theory of Addictions with adolescent problem gamblers. I didn’t know Dewey at the time, and worried that he would not appreciate my validating his theory, but nevertheless sent him off a copy of my proposal for his approval. I received my proposal back, with detailed, descriptive annotations all over the pages documenting his excitement and enthusiasm. I had not realized at the time that I was offering him a gift that he treasured to his dying day. It meant so much to him that his theory be empirically tested and validated. Dewey followed my career very closely, keeping me on my toes, and always en-

couraging me to be happy, healthy, and to be the best I could possibly be. He supported our center with his constant praise and encouragement, and always took the time to learn about our graduate students and speak with them at conferences or when visiting our Centre.

I loved him very much. Dr. Durand Jacobs was not my grandfather, or even a blood relative of mine. He was chosen family. And if I recall properly, he chose me. I had no say in the matter. I had never had a grandfather, and then all of a sudden I had so much more. A friend, a mentor, a leader, and buckets of unconditional love.

The loss of Dewey is a great one. We lost a mentor and a pioneer, and I lost a very special friend. I feel I owe it to him to highlight his main messages: Addiction happens for a reason. It is a way that some people cope with emotional pain and physiological resting state discomforts. Abuse in one’s past is an example of something that places a person at heightened risk. Dissociative disorders and the need to dissociate through addictive behaviours are integral to understanding addiction. These are key factors to consider when developing a treatment approach, or when simply relating to a person who is struggling with addiction.

Dewey, I miss you very much. You have enriched us all so much with your humanity and brilliance. I owe so much to you. Oh, and you can rest assured that Norie is a real trooper. She is very busy cherishing all your incredible memories and says she will always feel your love in her heart. She was truly blessed to have you by her side all these years.

- Rina Gupta -



Adolescent Gambling in Germany

- Recent Research Findings

By Tobias Hayer, Ph.D., Institute of Psychology and Cognition Research, University of Bremen, Germany

Over the last few years, gambling research in Germany has advanced considerably, both in terms of quantity and quality. One of the major topics refers to the participation of adolescents in (commercial) gambling as well as the prevalence of gambling-related problems during this sensitive developmental period. Until the end of 2012, on an epidemiological level, eight prevalence studies involving adults have been conducted, and four of them also included small subsamples of minors. More meaningful, however, are research projects that explicitly focus on young people. With one exception (Walther et al., 2012), the findings of these five youth studies have only been published in German, and this article will provide a brief overview of the main conclusions of these studies.

In general, all five youth studies are based on self-reported data that has been collected within school environments. The sample sizes vary markedly (from 1,132 to 5,009; see Table 1 for further details), but are mostly comprised of minors. Overall, the findings suggest that more than one third of all teenagers are active gamblers with 12-month prevalence rates ranging from 33.4% (Walther et al., 2012) to 46.9% (Ludwig et al., 2012). Furthermore,

to be the most popular gambling forms among youth. In interpreting these facts, one should keep in mind that all variants of commercial gambling are forbidden for minors (youth younger than 18 years of age) in Germany.

A more detailed look at the data reveals some notable consumption patterns. For example, Duven et al. (2011) recently replicated the study of Hurrelmann et al. (2003) using an almost identical methodological approach. Although the overall participation rate in gambling within the last 12 months was nearly constant over a decade (39.9% vs. 41.1%), substantial increases could be observed when considering certain gambling forms. Most worrying, twice as many adolescents (7.4% vs. 14.2%) reported to have gambled on amusement with prizes-machines, a gambling product known to be associated with a high addictive potential (Hayer, 2010). Other study results show that hoping to win money constitutes the primary gambling motive; restaurants/pubs, amusement arcades, and the Internet represent the most preferred gambling locations; and first gambling experiences were predominantly made with poker (Duven et al., 2011). Additionally, Baumgärtner (2009) could classify 10% of

all 14-to 18-year old students as regular gamblers (i.e., individuals who participated in gambling several times in the previous month). Not surprisingly, far more boys (17.2%) and students with a migration background (14.8%) belong to this subgroup. In terms of stakes, regular gamblers spend on average about

Table 1: Gambling Studies with Adolescents from Germany: Basic Information at a Glance

	Hurrelmann et al. (2003)	Baumgärtner (2009)	Duven et al. (2011)	Walther et al. (2012)	Ludwig et al. (2012)
Federal State	North Rhine-Westphalia	Hamburg	Rhineland-Palatinate	Schleswig-Holstein	Bavaria
Sample	5,009 students (aged 13-19 years)	1,132 students (aged 14-18 years)	3,967 students (aged 12-18 years)	2,553 students (aged 12-25 years)	1,639 students (mainly aged 14-15 years)
Gambling participation (lifetime) (%)	62.0	82.0	64.3	na	na
Gambling participation (last 12 months) (%)	39.9	na	41.2	33.4	46.9
Popular gambling forms (Top 3, rank order)	Card games, scratchcards, sports betting*	Sports betting, poker, amusement with prize-machines**	Card games, scratchcards, amusement with prize-machines*	na	Private card or dice game, scratchcards, amusement with prize-machines***
Problem gamblers (%)	2.9% (DSM-IV-MR-J-Score: 4+)	na	2.2 (DSM-IV-MR-J-Score: 4+)	1.3 (SOGS-RA-Score: 4+)	na

na = not available; DSM-IV-MR-J = DSM-IV-Criteria Adapted for Juveniles, Multiple Responses; SOGS-RA = South Oaks Gambling Screen - Revised for Adolescents; * 12-month-prevalence; ** at least several times a month; *** at least six times within the last year

life-time prevalence rates lie between 62% (Hurrelmann et al., 2003) and 82% (Baumgärtner, 2009). Thus, the majority of German adolescents come – at least sporadically – in contact with either commercial gambling products or self-organized forms of gambling. As depicted in Table 1, card games (mainly poker), scratchcards, sports betting, and amusement with prizes-machines (located in arcades and certain restaurants, pubs or cafes) seem

52 Euro per month on gambling. This sum corresponds to approximately 29% of their disposable budget. Finally, Ludwig et al. (2012) confirmed that regular gambling (i.e., individuals who gambled at least six times within the last year) is highest for private card or dice games (5.7%) and lowest for lotto type games (e.g., '6 out of 49') (1.1%).

Three of the five studies in Table 1 also incorporated a screening instrument to determine the prevalence of teenagers with gambling-related problems. While Hurrelmann et al. (2003) and Duven et al. (2011) used the 'DSM-IV-Criteria Adapted for Juveniles' and discovered a prevalence of 2.96% and 2.2%, respectively, Walther et al. (2012) applied the 'SOGS-RA' and identified 1.3% of their sample as problem gamblers (and further 3.5% as at-risk gamblers). Thus, compared to adults, the prevalence of gambling-related problems in adolescence is two to three times higher, reflecting a well-known phenomenon in international gambling research (Hayer, 2012).

Moreover, several risk factors could be identified based on the cross-sectional data at hand. The publication by Hurrelmann et al. (2003) was the first one that presented risk-enhancing variables including male gender, low educational background, and having parents who are of non-German ethnic origin. At a univariate level, further correlates of problem gambling in adolescence encompass a lack of social acceptance, a low degree of self-efficacy, a greater extent of (perceived) stressful life events, relatively poor quality of life, poor mental well-being, and psychosomatic complaints. Young problem gamblers are also more likely to engage in other potentially addictive behaviors such as smoking and illegal drug use. In sum, adolescents with gambling-related problems can be described as highly stressed individuals with deficient coping skills who are involved in multiple problem behaviors. Certainly, in the absence of longitudinal data, final conclusions about causes and effects cannot be drawn. In line with these findings, Duven et al. (2011) acknowledged that being male, having a lower educational level, and possessing a migration background (especially from Turkey or Russia) increase the risk of developing gambling-related problems. As expected, a relatively large proportion of problem gamblers have gambled on the Internet and on amusement with prizes-machines. Finally, the majority of problem gamblers who attend vocational schools (n=57) admitted to have committed illegal acts to satisfy their gambling needs at least once. According to Walther et al. (2012) and a multivariate regression analysis, high values of impulsivity and low values of social anxiety significantly predicted gambling-related problems. Taken together, their findings support the notion that adolescent problem gamblers share a similar personality profile as regular substance users but differ to a certain degree from problematic computer gamers.

The studies cited above provide a relatively solid evidence base with regard to gambling participation and gambling-related problems among German youth. However, some basic research questions still have to be explored, including (i) the identification of the most relevant individual and social variables that increase the

risk of excessive gambling behaviors in adolescence; (ii) the deduction of typical (mal)adaptive pathways with a special focus on the initial contact with the 'world of gambling'; (iii) capturing a more resource-oriented perspective and embedding protective factors into future research projects; (iv) the development and evaluation of a standardized screening instrument for German adolescents to determine gambling subgroups in an age-appropriate way; and (v) studies that try to identify why adolescent problem gamblers rarely seek professional help. Answers to these questions could not only fill in important research gaps but also improve prevention and intervention actions to minimize the dangers and negative consequences associated with gambling.

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References

- Baumgärtner, T. (2009). *Jugendliche und Glücksspiel: Erste Ergebnisse der SCHULBUS-Sondererhebung 2009 [Youth and gambling: First findings from the SCHULBUS-Special Survey 2009]*. Hamburg.
- Duven, E., Giralt, S., Müller, K., Wölfling, K., Dreier, M. & Beutel, M.E. (2011). *Problematisches Glücksspielverhalten bei Kindern und Jugendlichen in Rheinland-Pfalz [Problem gambling among children and adolescents in Rhineland-Palatinate]*. Mainz.
- Hayer, T. (2010). Geldspielautomaten und Suchtgefahren – Wissenschaftliche Erkenntnisse und suchtpolitischer Handlungsbedarf [Amusement with prize-machines and addictiveness – Scientific evidence and need for action in terms of policy]. *Sucht Aktuell*, 17 (1), 47-52.
- Hayer, T. (2012). *Jugendliche und glücksspielbezogene Probleme: Risikobedingungen, Entwicklungsmodelle und Implikationen für präventive Handlungsstrategien [Adolescents and gambling-related problems: Risk factors, developmental models, and implications for preventive actions]*. Frankfurt/M.: Peter Lang.
- Hurrelmann, K., Schmidt, L. & Kähnert, H. (2003). *Konsum von Glücksspielen bei Kindern und Jugendlichen – Verbreitung und Prävention [Consumption of gambling among children and adolescents – Prevalence and prevention]*. Düsseldorf.
- Ludwig, M., Braun, B., Pabst, A. & Kraus, L. (2012). *Glücksspielverhalten von Jugendlichen in Bayern [Gambling behavior among youth in Bavaria]*. Bayern.
- Walther, B., Morgenstern, M. & Hanewinkel, R. (2012). Co-occurrence of addictive behaviours: Personality factors related to substance use, gambling and computer gaming. *European Addiction Research*, 18, 167-174. ♦

The Psychosocial Impact of Gambling Apps

By Mark Griffiths, Ph.D., Psychology Division, Nottingham Trent University, United Kingdom

Most regular gamblers will be well aware that technology is revolutionizing the way they can gamble and access gambling. One of the most notable innovations has been the proliferation of various gambling applications ('apps') for smartphones and computer tablets. A majority of the British bookmakers have launched sports betting apps including *Betfred Mobile Sportsbook*, *William Hill iPhone*, *Ladbrokes Mobile*, *Betfair iPhone Client*, and *Paddy Power Mobile*. Most of the apps allow sports bettors to gamble via their mobile phones and/or tablets (e.g., *iPad*) with all the same options that gamblers can get offline, and additionally keep track of the bets made. Combined with this, many operators have introduced *iPhone* compatible websites. Bookmakers have also launched similar apps and services for *Android* (i.e., non-Apple) products (e.g., *Unibet's* mobile sports betting app). In short, mobile sports betting has gone mainstream.

There are also apps for games like *Fantasy Football* (such as the one offered by *Betfred*) but most gambling operators are moving into the mobile social betting market because it provides greater flexibility in predicting score lines and makes it easier to share the result outcomes with friends. Such services include *Unibet Social Betting*, *SideBets Social BE-Tworking*, *Bodugi Social Betting*, *King of Predictions*, and *Bet Tracker Pro*. Gamblers also have access to a wide range of betting tips and betting odds apps via both *iPhone*

and *Android* handsets. Gambling apps can also provide access to potentially useful information for the player (e.g., tips, strategy articles, the latest updates, etc.). In addition to the bookmaking industry, casino operators have followed suit and have also moved into the gambling app market on both *iPhone* and *Android*. Once casino apps have been installed, players can instantly access their favorite casinos and casino games without searching for them via a web browser. A quick look at the commercially available gambling apps shows that almost all gaming operators offer attractive bonuses in an attempt to attract new clientele to download their gambling app software and spend some money (e.g., first deposit bonuses, reload bonuses, and various other seasonal promotions). The psychosocial impact of real money gambling apps is likely to become a hot topic among those of us who carry out research in the gambling studies field. For more research about gambling and gambling apps (e.g., *Bingo Friendly*) via social networking sites, readers can review the *World Online Gambling Law Report* listed in the references (i.e., Griffiths, 2012a).

As with online gambling more generally, the introduction of gambling apps and mobile gambling eliminates time and place constraints, allows 24/7 access all year round, provides convenience and flexibility, provides a wide range of games (e.g., slots, blackjack, video poker, roulette, etc.) and potentially increased

gambling opportunities, and means that anyone can gamble anywhere at anytime providing there is network connection. Real money gambling apps arguably make gambling even easier for players. Whilst there are clearly many advantages for gamblers, these advantages may have a negative psychosocial impact on a small minority of gamblers.

The gambling app market is likely to be very lucrative for both game developers and gaming operators. In a recent report by Juniper Research, it was estimated that users of smartphones and tablets are expected to wager \$100 billion annually on the devices by 2017, up from about \$20 billion in 2011 (MacMillan, 2012). However, Juniper Networks' Mobile Threat Centre also reported that gambling apps pose the biggest security risk to smartphone users after over 1.7 million apps on the *Google Play Store* were analyzed between March 2011 and September 2012 (Sharma, 2012). Another study by German researchers at the Leibniz University (Hannover) and the Philipps University (Marburg) found that apps (including gambling apps) were leaking personal data, including bank account information. The study tested the 13,500 most popular free apps from the *Google Play Store* and found that 1074 of them (8%) used incorrect or inadequate coding (Manning, 2012). These studies also found that the gambling apps "blatantly overstepped permissions that were more than adequate for normal use" and

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that with malware they accessed a number of features of the users' smartphones and tablets without justification (Sharma, 2012). Racing apps were reported as causing the most concern with 99% of paid racing apps and 92% of free racing game apps being able to send SMS; half of free downloaded apps were able to use the camera; and 94 per cent of free games could make outgoing phone calls.

From a psychosocial impact perspective, one of the areas where gambling apps appear to be having most impact currently is in relation to in-play betting. For instance, *Bet365* (the most successful gaming operator in the in-play market) have a free betting app that players can use for any of their 'in-play' markets (most notably football) from a smartphone. It was argued in a recent article (Griffiths, 2012b) that what the 'in-play' markets have done is take what was traditionally a discontinuous form of gambling like football betting - where gamblers made one bet every Saturday on the result of a football game - to one where consumers can gamble again and again and again. What's more, gaming operators have quickly capitalized on the increasing amount of televised sport. In contemporary society, where there is a live sporting event, there will always be a betting consumer. 'In-play' betting companies using gambling apps have catered to both the natural betting demand and have initiated new clientele in the process.

If the reward for gambling only happens once or twice a week, it is almost completely impossible for a gambler to develop problems and/or become addicted

(Parke & Griffiths, 2007). 'In-play' betting using gambling apps has changed that because we now have football matches on almost every day of the week making a daily 2-hour plus period of betting seven days a week. 'In-play' has fundamentally changed the way that people view and bet on sporting events (Griffiths, 2012b). The speed of a game also likely influences the prevalence of problem gambling. Based on the relationship between event duration, event frequency, bet frequency, and payout interval, empirical research has consistently shown that games that offer a fast, arousing span of play, frequent wins, and the opportunity for rapid replay are those most frequently cited as being associated with problem gambling (Parke & Griffiths, 2007). These potentially problem-inducing structural characteristics have the capacity to be enhanced via gambling apps and in-play betting (Griffiths & Auer, 2013). The actual prevalence rate of problem gambling will of course depend on many factors other than speed of the game alone, but games with high and rapid event frequencies are most likely to have an impact on increased rates of problem gambling. 'In-play' betting via gambling apps appears to be an activity that is starting to blur the lines between continuous and discontinuous forms of gambling.

Frequency of opportunities to gamble (i.e., event frequency) appears to be a major contributory factor in the development of gambling problems (Parke & Griffiths, 2007; Griffiths & Auer 2013). The general rule is that the higher the event frequency, the more likely

it is that the activity will result in gambling problems for vulnerable and susceptible gamblers. Gambling addiction has been shown to be associated with the rewards, the speed of rewards, and payout rates. Therefore, the more potential rewards there are, and the higher the amount of the rewards, the more problematic the activity is likely to be. Given the time, money and resources, a vast majority of gambling activities are now 'continuous' in that people have the potential to gamble again and again. Thus, in relation to problem gambling, 'in-play' betting via gambling apps is an activity that we really need to keep an eye on.

References

- Griffiths, M.D. (2012a). Gambling on Facebook? A cause for concern? *World Online Gambling Law Report*, 11(9), 10-11.
- Griffiths, M.D. (2012b). Mind games (A brief psychosocial overview of in-play betting). *i-Gaming Business Affiliate*, June/July, 44.
- Griffiths, M.D. & Auer, M. (2013). The irrelevancy of game-type in the acquisition, development and maintenance of problem gambling. *Frontiers in Psychology*, in press.
- MacMillan, D. (2012). iPhones Become Mobile Casinos by Adding Real-Money Bets. *Bloomberg Business Week*, August 16. Located at: <http://www.businessweek.com/news/2012-08-16/iphones-become-mobile-casinos-by-adding-real-money-bets>
- Manning, J. (2012). Android apps leaking personal, banking details. *Stuff*, October 23. Located at: <http://www.stuff.co.nz/technology/digital-living/7852719/Android-apps-leaking-personal-banking-details>
- Parke, J. & Griffiths, M.D. (2007). The role of structural characteristics in gambling. In G. Smith, D. Hodgins & R. Williams (Eds.), *Research and Measurement Issues in Gambling Studies*. pp.211-243. New York: Elsevier.
- Sharma, M. (2012). Free gambling apps top security risk list. *Stuff*, November 4. Located at: <http://www.stuff.co.nz/technology/digital-living/7904180/Free-gambling-apps-top-security-risk-list> ◆

Predicting Gambling Problems from Gambling Outcome Expectancies Among College Student-Athletes: Results from a Recent Study

By *Renée St-Pierre, M.A., International Centre for Youth Gambling Problems and High-Risk Behaviors*

Social cognitive models of health behaviour (e.g., Theory of Planned Behavior, Ajzen, 2002) have been proposed to be potentially useful for explaining gambling behaviour, including the decision to gamble or the selection of a specific gambling activity (Evans, 2003). These models recognize a number of determinants of behaviour that are believed to mediate the effects of other influential factors (e.g., gender, age, parental models) (Conner & Norman, 2005). With respect to gambling, a growing body of research has identified attitudes towards the behaviour, perceptions of significant others' evaluations of the behaviour, and appraisals of control over the behaviour as significant predictors of intentions to initiate or continue gambling and of gambling involvement and problem gambling (Martin et al., 2010; Wu & Tang, 2011). Additionally, college students' expectations concerning the potential benefits associated with gambling behaviour are reported to be positively correlated with gambling frequency and gambling problems, whereas their perceptions of the possible negative consequences are found to be negatively related to gambling frequency (Wickwire et al., 2007). These perceived costs and benefits of engaging in gambling behaviour (i.e., outcome expectancies) are posited to be predictive of an individual's overall gambling attitudes (Moore & Ohtsuka, 1999).

Within the college environment, student-athletes are proposed to be a special sub-population at particular risk for problematic behaviours. Owing to their dual status, college student-athletes are required to balance both academic and athletic demands. There is speculation that the risk for maladaptive behaviours is likely exacerbated by the heightened physical and psychological stress, as well as the greater time constraints resulting from this dual status (Yusko et al., 2008). Given that the experiences of college student-athletes may be characteristically different from non-athletes, it is possible that prevention programs and treatment initiatives geared towards the general student body are not appropriate for student-athletes. Research attention focused specifically on student-athlete participation in high-risk activities such as gambling remains warranted.

No studies have systematically evaluated the relationship between gambling-related outcome expectancies (i.e., the perceived positive and negative consequences of engaging in gambling) and college student-athletes' involvement in gambling or the severity of their gambling problems. While previous studies have identified the potential importance outcome expectancies in the prediction of gambling participation and gambling problems among adolescents and college students (Gil-

lespie et al., 2007; Wickwire et al., 2010, 2007), the predictive ability of positive and negative outcome expectancies has not yet been determined for college student-athletes. Moreover, preliminary evidence suggests that the value of gambling outcome expectancies in the prediction of gambling severity may differ for adolescent males and females (Gillespie, 2010; Gillespie et al., 2007), although it was noted that this may be an artifact of the small sample of female problem gamblers. Further exploration of the relationships between gender and outcome expectancies in the prediction of gambling severity among youth is therefore needed. Although identification of gambling outcome expectancies and the relationships between gender and outcome expectancies is only one piece of the much larger puzzle of predicting gambling severity among college student-athletes, its exploration as a line of inquiry may nevertheless have the potential to inform future prevention and treatment initiatives targeting this particular population.

To address this, a recent study from the International Center for Youth Gambling and High-Risk Behaviours sought to evaluate the predictive ability of gambling outcome expectancies while controlling for the effects of gender in the prediction of gambling severity among college student-athletes. The study also aimed to ascertain if gambling outcome expectancies

differentially predicted gambling severity for women and men involved in college athletics. Data from the most recent National Collegiate Athletic Association (NCAA) study assessing gambling behaviours and problems among approximately 23,000 U.S. college student athletes were utilized.

As expected, male college student-athletes reported more gambling participation as well as greater gambling problems than their female counterparts. In terms of outcome expectancies, the findings suggest positive relationships between the outcome expectancies of financial gain, and negative emotional impacts and gambling problems. That is, those who endorsed more items on the outcome expectancy scales for financial gain and negative emotional impacts also tended to endorse more gambling-related problems. This mirrors similar findings from the extant gambling expectancy literature (Gillespie et al., 2007; Gillespie, 2010; Wickwire et al., 2010).

An unexpected finding was that for both male and female student-athletes, expectancies of enjoyment were negatively related to gambling severity, with stronger expectations of “fun” and “enjoyment” from gambling being inversely related to the likelihood of having a gambling problem. While previous studies using adolescent samples have reported a positive relationship between expectancies of enjoyment and stimulation and problem gambling (Gillespie et al., 2007), it may be that for college student athletes who gamble excessively, the long-term negative consequences of gambling become much more salient than the immediate heightened arousal

or enjoyment benefits. Therefore, as student athletes’ experiences with the negative consequences of gambling intensify with excessive play, their expectations of “fun” and “enjoyable” outcomes from gambling activities seem to become less relevant.

The current study allows for a greater appreciation of the significance of outcome expectancies in the prediction of gambling problems among students athletes. Since college student athletes may be another population at risk for over involvement in gambling, it is important to explore gambling outcome expectancies within this population as the motivations and reasons for gambling might be able to inform our treatment and prevention initiatives. Nevertheless, this project represents only an initial step toward understanding students’ motivations and reasons for gambling. The findings must be interpreted in light of their preliminary nature. For more information see: <http://link.springer.com/article/10.1007/s10899-012-9355-4>

References

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*, 665-683.

Conner, M., & Norman, P. (2005). Predicting health behaviour: A social cognition approach. In M. Conner & P. Norman (Eds.), *Predicting health behaviour* (2nd ed., pp. 1-27). Maidenhead, BRK, England: Open University Press.

Evans, R. I. (2003). Some theoretical models and constructs generic to substance abuse prevention programs for adolescents: Possible relevance and limitations for problem gambling. *Journal of Gambling Studies, 19*, 287-302.

Gillespie, M. A. M. (2010). *Youth gambling: Exploring the relationships between impulsivity, depression, outcome expectancies and gambling involvement* (Unpublished doctoral dissertation). McGill University: Montreal, Canada.

Gillespie, M., Derevensky, J., & Gupta, R. (2007). The utility of outcome expectancies in the prediction of adolescent gambling behaviour. *Journal of Gambling Issues, 19*, 69-85.

Martin, R. J., Usdan, S., Nelson, S., Umstattd, M. R., LaPlante, D., Perko, M., & Shaffer, H. (2010). Using the theory of planned behavior to predict gambling behavior. *Psychology of Addictive Behaviors, 24*, 89-97.

Moore, S. M., & Ohtsuka, K. (1999b). The prediction of gambling behavior and problem gambling from attitudes and perceived norms. *Social Behavior and Personality: an international journal, 27*(5), 455-466.

Wickwire, E. M., Whelan, J. P., & Meyers, A. W. (2010). Outcome expectancies and gambling behavior among urban adolescents. *Psychology of Addictive Behaviors, 24*, 75-88.

Wickwire, E. M., Jr., Whelan, J. P., West, R., Meyers, A., McCausland, C., & Leullen, J. (2007). Perceived availability, risks, and benefits of gambling among college students. *Journal of Gambling Studies, 23*, 395-408.

Wu, A., & Tang, C. (2011). Problem gambling of Chinese college students: Application of the Theory of Planned Behavior. *Journal of Gambling Studies, 1-10*.

Yusko, D. A., Buckman, J. F., White, H. R., & Pandina, R. J. (2008a). Alcohol, tobacco, illicit drugs and performance enhancers: A comparison of use by college student athletes and nonathletes. *Journal of American College Health, 57*, 281-289. ♦

Johnny Football Goes to The Casino

By Keith Whyte, Executive Director, National Council on Problem Gambling

Heisman Trophy winner Johnny Manziel (known as “Johnny Football”) recently tweeted a picture of himself with a fist-full of gambling winnings at an Oklahoma tribal casino, one day after his Texas A&M team defeated Oklahoma 41-13 in the Cotton Bowl. While Manziel was not gambling illegally (casinos in Oklahoma allow gambling at 18) the picture briefly generated media buzz about the risks of tweeting by athletes. But lost in the hype were deeper concerns about gambling participation and addiction among college student athletes.

We have long known that the risk factors for gambling addiction include being male, young, involved in sports and high sensation seeking/low aversion to risk. Every study of college athletes has found high rates of gambling participation and problems, particularly among young men who are five times more likely to have a gambling problem than female athletes. Approximately 10-15% of college students gamble at least



once a week and almost 8% of college students met the criteria for problem gambling, far higher than the national average. In addition, national surveys of college student athlete gambling reveal that most male athletes began gambling in high school, and one-quarter before high school. Athletes who gambled were much more likely to receive traffic tickets, buy on impulse, steal, enjoy taking risks, have a parent with a gambling problem, have friends who gamble (like Johnny’s in the picture), have 5 or more drinks in one sitting and engage in risky sexual behaviors. Finally, recent

research by the McGill team found male student athletes who gambled either to win money or to deal with negative emotions were more likely to have gambling problems.

Amateurism may also contribute to gambling by college student athletes, as they may see betting as a way to make money since they are not allowed to be paid. As the old adage goes, if you want to leave the casino with a small fortune, start with a large one. The questions are less about what he won, if indeed he did, but where did he get the money to gamble, how much did he lose, was he comped, and is gambling something he does frequently or problematically? Was this just beginners luck, or does he gamble often? Is it stress relief or entertainment? A test of his gambling “skill” or recognition of the fun of randomness?

When Johnny goes to the casino, the world is watching a winning athlete lead a glamorous lifestyle. Hopefully he walks away without problems. ◆



Dr. Jeffrey L. Derevensky received the annual **Joseph W. Ciarrocchi Award** for “pioneering efforts in research on youth problem gambling.”

- Awarded by the Maryland Council on Problem Gambling and The Center of Excellence on Problem Gambling, March, 2013.

Centre Fundraising Campaign in Full Swing

The Centre's ongoing fundraising campaign continues to grow with the support of corporate and private sponsors. Due to restricted government infrastructure funding, we have initiated a fundraising campaign to help us maintain our ability to develop and deploy empirically-based prevention and harm-minimization programs. The Centre is housed on McGill University's main campus in the heart of Montreal, Canada. McGill University is a public university and recognized charitable organization.

Donations can be made to:

The International Centre for Youth Gambling Problems and High-Risk Behaviors
McGill University
3724 McTavish Street
Montreal, Quebec H3A 1Y2

Official letters of contributions and tax receipts will be forwarded

U.S. Federal Government Striving for Online Gambling Legislation

As some states including New Jersey, Delaware and Nevada have passed legislation concerning online gambling, the U.S. Senate is again starting to look at passing a federal bill. Supporters of a federal law feel it would create judicial uniformity and protect against fraud. As Republican Representative Joe Barton (Texas) said, "Whether you're for or against Internet gambling, you don't want 50 sets of state laws. You want uniformity." Those opposed are concerned that federal legislation would reduce individual state's revenue shares and control of the online gambling activities. This issue is sure to be hotly debated in the coming months. ◆

Former San Diego Mayor Admits to Gambling more than \$1 Billion

In February 2013, Maureen O'Connor, the former mayor of San Diego and widow of a millionaire restaurant chain founder, pleaded not guilty to money laundering charges. O'Connor, admitted to betting more than \$1 billion dollars in casinos. Her gambling addiction drove her to take \$2.1 million from her husband's charitable foundation, liquidate her savings, sell and mortgage properties and auction her valuables. She struck a deal that will enable her to repay the money to the charitable foundation and she has been mandated to seek treatment for her gambling addiction. She claims that she always intended to repay the money and cites failing health and the loss of her husband and other family members for sparking her gambling compulsion. ◆

Recent publications and presentations

REFEREED PUBLICATIONS

Derevensky, J., St-Pierre, R., Temcheff, C., & Gupta, R. (in press). Teacher awareness and attitudes regarding adolescent risky behaviours: Is adolescent gambling perceived to be a problem? *Journal of Gambling Studies*.

Thomas, S., Lewis, S., Westberg, K. & Derevensky, J. (in press). Examining the beliefs and behaviours of 'moderate risk' gamblers: A qualitative study. *International Journal of Mental Health and Addiction*.

RESEARCH & POLICY REPORTS

Maitland, S. B., Arnett, J., Davey, A., Derevensky, J., & Wiebe, J., (2013). *Developmental Transitions and the Impact of Gambling in Adolescence and Emerging Adulthood: Establishing the Baseline*. Final report prepared for the Ontario Problem Gambling Research Center, Ontario, 92 pp.

INVITED PRESENTATIONS

Derevensky, J. (2013). Problem gambling and special populations: Impact across ages. *March Madness-Sports betting and the Internet: A cause for concern*. Invited keynote presentation to Maryland Center of Excellence on Problem Gambling, University of Maryland School of Medicine and the Maryland Council on Problem Gambling Training Program, Baltimore, March. ◆

News from the Centre...

Prevention Initiative - Partners in Prevention

Partners in Prevention is a collaborative partnership between the Lester B. Pearson School Board of Montreal (the largest English-language school board in Quebec) and Portage Adolescent Residential Rehabilitation Center (substance abuse rehabilitation center), the Royal Canadian Mounted Police (RCMP), Montreal Urban Police (SPVM), Foster's Pavilion (substance abuse rehabilitation program), and the International Centre for Youth Gambling. Annually, the Partners host a multi-night event aimed at Grade 6 students and their parents to promote healthy choices in an attempt to minimize adolescent risky behaviours. For the 2013 event, the Partners initiated a new format with each Partner member organization hosting an interactive station for Grade 5 and 6 students and their parents.

The participants were divided into small groups and each group circulated through the stations every 12 minutes. For this event, the YGI team used our Teen Gambling Jeopardy-style game. During play, in our booth, the children were divided into 2 teams and competed to answer gambling-related questions in categories such as Fact vs. Myth, Everyone Knows That, Against All Odds and Wild Card. The game format permits us to disseminate information and take home messages in a fun and engaging manner. We received tremendously positive feedback from the parents, children and organizers attending the event who commented that our game was innovative, interactive and highly engaging. ◆

Upcoming Events

- **25th Anniversary Conference - Florida Council on Compulsive Gambling**
April 4-5, 2013
Orlando, Florida
- **12th Annual Alberta Conference on Gambling Research**
April 4-6, 2013
Banff, Alberta
- **RGC's Discovery Conference**
April 14-16, 2013
Toronto, Canada
- **CCGR's Internet Gambling Workshop**
April 17, 2013
Toronto, Canada
- **Social Gaming 2013**
May 23, 2013
London, UK
- **The 9th Nordic Conference: Changing Landscape of Gambling - Treatment and Prevention**
May 27-29, 2013
Hamar, Norway
- **International Conference on Gambling & Risk Taking**
May 27-31, 2013
Las Vegas, USA
- **NCPG's 27th National Conference on Problem Gambling: Connections 2013**
July 19-20, 2013
Seattle, USA ◆

Responsible Gambling Council - Discovery Conference

Toronto, Ontario
April 14-16, 2013

The Responsible Gambling Council (RGC) works to reduce gambling risks by creating and delivering innovative awareness and information programs. It also promotes the adoption of improved play safeguards through best practices research, standards development and the RG Check accreditation program. RGC is committed to bringing together all perspectives in the reduction of gambling problems including those of people with firsthand experience with gambling problems, gaming providers, regulators, policy makers and treatment professionals.

RGC's Discovery Conference provides an international platform to explore, examine and discuss issues related to problem gambling prevention, bringing together people who are committed to problem gambling prevention, treatment, research and policy analysis.

For more information and to register, please visit:
<http://www.responsiblegambling.org/rg-news-research/discovery> ◆

YGI Newsletter

A Quarterly Publication by the International Centre for Youth Gambling Problems and High-Risk Behaviors

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