# Division on Addiction 2023 Annual Report





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# Letter from the Director

### Greetings!

During 2023, the faculty and staff members of the Division on Addiction showcased the breadth of our work through four cores of activity: research, outreach, education, and training. In doing so, we continued to strive to eliminate the harmful effects of addiction with the hope that its associated social, medical, and economic burdens would be diminished. Of special note, we celebrated a big milestone for Gambling Disorder Screening Day (GDSD). In 2014, we took a chance

on creating this important event, and I couldn't be more pleased about the outcome. With a decade of work, this annual event is one of the most popular activities we have ever developed. Although this represents just one small part of the Division's contributions each year, it also illustrates our commitment to these cores.

**RESEARCH.** We published a <u>seminal paper about GDSD</u> and completed the first ever study of GDSD. We also were awarded a grant from the International Center for Responsible Gaming to



Debi A. LaPlante, PhD presenting at the 18th International Conference on Gambling & Risk Taking in Last Vegas, Nevada

complete additional GDSD research in 2024. This GDSD work, and nine other studies published during 2023, were completed with adherence to Open Science principles and practices. We're proud to show leadership in this approach to our work and are eager for continued adoption of open science practices in addiction studies. Our commitment to research excellence and independence remains central to all that we do.

**OUTREACH.** We had a record number of GDSD participants during 2023 and have noted an expanding worldwide enthusiasm for this event. In all, participants represented 34 U.S. states, one U.S. territory, and seven countries. We made screening materials available in English, Spanish, and simplified Chinese. During 2024, we look forward to adding translations for Brazilian Portuguese, Vietnamese, and Haitian Creole. Our outreach efforts generally use a variety of techniques and

strategies to increase appeal to a number of potential consumers. We were delighted to publish <u>The Brief Addiction Science Information Source</u> (née The WAGER) for the 28th consecutive year, as well as new infographic-style <u>snapshots</u> of our research available on our website and through social media. We also enjoyed participating in public-facing podcasts to share our work outside academia with new audiences.

**EDUCATION.** GDSD afforded us the opportunity to engage in new continuing education activities, including presentations about this work at international conferences, such as the tri-annual Gambling & Risk Taking Conference in Las Vegas and numerous webinars. These educational experiences complement other new educational initiatives at the Division, including our new course website, divisiononaddictioncourses.org. There, you can find The BASIS Microlearning Course, which includes 28, one-hour continuing education (CE) modules for allied health professionals. Coming soon, in 2024, we also will feature a new online course dedicated to science literacy for health professionals. We also were excited to prepare new multimedia courses featuring health equity story-telling by people with lived experience with addiction for our work at the Massachusetts Technical Assistance Center for Problem Gambling Treatment (M-TAC).

**TRAINING.** Organizations in our home state of Massachusetts and across the country requested GDSD training, and we were happy to oblige! We reached councils of problem gambling through National Council on Problem Gambling webinars and presentations and created enduring training materials that are housed in our online GDSD toolkit. We hosted personalized training sessions for local partners who wanted to strengthen their screening capabilities. Other training activities include briefing the American Bar Association and Judicial Outreach Liaison Program about our Computerized Assessment and Referral System (CARS) software for assessing DUI offenders' mental health. We're also extremely proud of the training that we are completing for our NIH-funded Native American Research Centers for Health center grant, in partnership with the Healing Lodge of the Seven Nations. We've trained more than 100 Tribal community members in our program, xa?tus First Face for Mental Health, and anticipate training an additional 600 individuals during 2024.

The Division on Addiction is excited for what we have done and for what we have yet to do. I'd like to thank the faculty and staff, and our partners, who make all of this possible. I appreciate them more than they will ever know and can't wait to share the accomplishments of our future.

Debi A. LaPlante, PhD Director, Division on Addiction Associate Professor of Psychiatry, Harvard Medical School

# Responsible Gaming

Project Title: The Entain-Division on Addiction Internet Gambling Research

Collaborative

Pls: Debi A. LaPlante, PhD & Sarah E. Nelson, PhD

Funder: Entain plc

During 2023, the Division completed its fifth year of a research collaborative on gambling and gambling-related problems among patrons of Entain plc (formally GVC Holdings), the multinational sports betting and gaming group. As part of this partnership, Entain provided the Division with access to anonymized player data across a range of its brands, sports betting, and gaming products. The research is broad ranging, focusing on a number of areas including, but not limited to, patterns of normal internet gambling behavior, behavioral markers of gambling problems among internet players generally and within specific bettor and game types, and analyses addressing important research questions in the gambling studies field, including the role of big wins and loss chasing in the escalation of gambling behavior, the application of Pareto's principle to gambling, and how changes in gambling behavior over time relate to gambling risk. Additionally, the Division provided training and educational sessions for Entain employees and provided input on algorithms used by Entain and other operators to detect at-risk behaviors, the effectiveness of intervention messaging, and the impact of operators' responsible gaming tools.

Project Title: Responsibility, Research, and Resources:

2023 Plan for Responsible Gambling Activities

Pls: Debi A. LaPlante, PhD & Heather M. Gray, PhD

Funder: DraftKings, Inc.

During 2023, the Division on Addiction provided DraftKings, Inc. with training and consultation related to gambling harm, safer gambling practices, and responsible gambling interventions. This funding provided partial support for the development of 52 free addiction science research reviews to be published on the Division's Brief Addiction Science Information Source (BASIS) research blog (basisonline.org). The Division also created an ondemand continuing education courses to improve scientific literacy among allied health professionals, which will be available mid-2024. Funding also supported the translation of Gambling Disorder screening materials into Spanish and simplified Chinese to be distributed to community-based organizations for Gambling Disorder Screening Day. In addition, the Division conducted a follow-up needs assessment to guide DraftKings' responsible gambling training needs, and provided consultation to DraftKings staff about gambling research and best practices in responsible gambling.

The Division also conducted an independent research program comprising the following studies: (1) gambling and self harm, (2) gambling and intellectual humility, (3) gambling and gambling-adjacent activities (e.g., day trading, cryptocurrency trading), (4) responsible gambling message fatigue, and (5) responsibility without blame for gambling harm.

## Responsible Gaming

Project Title: Using Blackjack Hand Histories to Extrapolate

Players' Strategies: Creating a Novel Simulation

Program to Inform Online and Land-based

Gambling Risk Detection

Pls: Matthew Tom, PhD

Funder: International Center for Responsible Gaming





Matthew Tom, PhD, Research Data Analyst, Division on Addiction; Instructor in Psychiatry, Harvard Medical School

Dr. Tom is an Associate in Psychiatry at Harvard Medical School and a Research Data Analyst at the Division on Addiction. He has served as an investigator and self-professed "stats guy" on numerous projects, most notably the studies that contrast normal and excessive gambling behavior. In some cases, his work involves developing novel and new metrics and statistical methods for analyzing large data sets with multiple years of betting records. For the past few years, he has also served as lead curator and website administrator for The Transparency Project, the Division on Addiction's public-facing data repository. He prepares codebooks, data sets, and code that others can use to replicate Division on Addiction research or test their own research ideas on our data.

Dr. Tom (just call him Matt) received a B.S. in mathematics from MIT, and then received his Ph.D. in statistics from Cornell University in 2003. He taught mathematics and statistics at Emmanuel College before joining the Division on Addiction in 2012. His primary research interest is gambling behavior, from the perspectives of both economics and psychology. More broadly, he is interested in competitive games, gambling games, and the people that play them. Other secondary academic interests include methods for analyzing categorical data and Monte Carlo simulation.

Matt is currently completing a one-year project called "Using Blackjack Hand Histories to Extrapolate Players' Strategies: Creating a Novel Simulation Program to Inform Online and Landbased Gambling Risk Detection." Funded by an International Center for Responsible Gambling Seed Grant, it is his first as Principal Investigator. For this project, Dr. Tom developed his own blackjack simulation program and player bots to simulate actual casino blackjack and different blackjack players with different strategies and tendencies. Each of his 501 bots is playing 24,000 six-deck shoes of blackjack. Using that data, Dr. Tom will draw conclusions about how many hands or shoes of blackjack a bot would have to play for an outside observer to be able to identify the bot based solely on the card-by-card records of blackjack play. If the answer is a "tractable" or humanly reasonable amount of play, then he hopes to obtain actual records of human play and see if he can use similar blackjack data to identify, classify, or label human players, and investigate if any such labels are associated with risk for problem gambling. His broader goal beyond just this project is to integrate analyses of in-game card-by-card data into systems for detecting signs of gambling harm.

## Responsible Drinking

Project Title: Responsible Drinking

PIs: Heather M. Gray, PhD & Debi A. LaPlante, PhD Funder: Foundation for Advancing Alcohol Responsibility

The Division is conducting a series of studies intended to move us closer to a shared conceptualization of responsible drinking that is both meaningful and measurable for lay people, researchers, clinicians, policymakers, and other concerned stakeholders. Participants recruited from a crowdsourced research platform (MTurk) are responding to a series of surveys designed to build and validate a new tool, the Responsible Drinking Inventory. To date, we have completed the domain/item generation, cognitive testing, exploratory factor analysis, confirmatory factor analysis, and reliability phases of survey development. In 2024, we will complete survey development and submit a journal article describing our process and the complete Responsible Drinking Inventory.

# CARS (Computerized Assessment & Referral System)

Project Title: CARS-Silver

Pls: Debi A. LaPlante, PhD & Sarah E. Nelson, PhD Funder: Foundation for Advancing Alcohol Responsibility

Since 2011, the Division and the Foundation for Advancing Alcohol Responsibility (FAAR) have engaged in an ambitious clinical software development and research agenda. This engagement has produced the Computerized Assessment & Referral System (CARS) and its variants, numerous conference presentations, training events, research reports, editorials & special series, and peer reviewed papers. For the newest iteration–CARS-Silver–the Division on Addiction won a Catalyst Award from the National Academy of Medicine's Healthy Longevity Global Competition to begin the adaptation of CARS for use with older adults on their own or in community-based peer health educator settings. CARS-Silver will provide older adults with structured mental health screening with automated referrals to treatment, community resources, and activities that will ensure they have the knowledge and support for aging well. For this initial project, the Division created a prototype of CARS-Silver using input from focus groups with adults aged 55 and older.

## Native American Research Centers for Health (NARCH)

Project Title: Assessing Cultures of Recovery in Tribal Communities

Proj. Leads/Pls: Debi A. LaPlante, PhD (Administrative Core); Sarah E. Nelson, PhD

(Research Core); Heather M. Gray, PhD (Capacity Building Core);

Timothy C. Edson, PhD (Pilot Project)

Funder: National Institutes of Health (National Institute of General Medical

Sciences, National Institute of Mental Health, and National Institute on Drug Abuse) via The Healing Lodge of the Seven Nations (Grant

No. 1S06GM146095)

2023 marked the Division's 10th year working with The Healing Lodge of the Seven Nations (HL) with funding from the NIH's Native American Research Centers for Health (NARCH)

program.

The Healing Lodge of the Seven Nations is a youth residential addiction treatment center with a focus on the Native American population. Seven Tribal communities started and continue to support the HL: the Coeur d'Alene Tribe, the Kootenai Tribe of Idaho, the Nez Perce Tribe, the Confederated Tribes of the Colville Reservation, the Kalispel Tribe of Indians, the Spokane Tribe of Indians, and the Confederated Tribes of the Umatilla Indian Reservation.

The National Institutes of Health (NIH) has awarded the HL with funds for Assessing Cultures of Recovery in Tribal Communities (NARCH XII), building upon earlier awards: Building Cultures of

The Healing Hands

Spotting the Signs

Spotting the Signs

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Division researchers help coordinate project activities at the Kalispel Tribe *xa?tus* First Face Training. Left to right: Sarah E. Nelson, PhD (Research Core Project Lead), Raisa Jones (Training & Research Coordinator), Martina Whelshula, PhD (NARCH Principal Investigator), Donell Barlow (Training & Research Coordinator), Jennifer Folayan (Training & Research Coordinator), Eric R. Louderback, PhD (Research Core Project Manager), Hannah Tomeo (Training & Research Coordinator)

Recovery in Tribal Communities (NARCH X) and Promoting Cultures of Recovery in Tribal Communities (NARCH VIII). NARCH XII is funding a waitlist-control evaluation of the community impacts of a new mental health first response training program developed with and for Tribal communities, xa?tus First Face for Mental Health (First Face), as well as capacity building activities and a pilot project at the HL.

# Native American Research Centers for Health (NARCH)

In 2023, the NARCH XII Research Core recruited more than 100 initial training participants who have participated in and completed baseline and posttraining evaluations at seven trainings in four Tribes. Each eight-hour session provided training to 8 - 22 Tribal community members in how to respond to individuals in their community experiencing mental health crises and how to serve as a bridge between these individuals and the help they need. The Research Core also completed community surveys with more than 170 respondents in the four Tribes where training has occurred, and recruited 14 Working Group members (from all seven Tribes) and interviewed them 1:1 about the best ways to implement First Face training in their communities.



One of the xa?tus First Face Training & Research Coordinators, Donell Barlow, leads First Face trainees in chair yoga exercises. First Face training includes a module on self-care to help trainees learn skills to manage their own wellness as they help others



xa?tus First Face trainees get a lesson in traditional basket weaving. First Face integrates cultural practices into its curriculum. The basket weaving activity gives participants a tactile task to engage in while learning about difficult topics like intergenerational trauma and substance use

The Division helped lay the foundation for a new Training and Research Center at the Healing Lodge. Currently, the Center's Training and Research Coordinators (T&RCs) conduct grantfunded trainings and small-scale, supervised research projects. As a result of our grant-funded Capacity Building work, they will be positioned to generate long-term funding to support the continuation and expansion of these activities.

The NARCH XII Pilot Project is one of the supervised research projects that will build professional research capacity among the Center's T&RCs. In 2023, the T&RCs completed initial phases of the project including survey development, human subjects protocol development, and pre-registration development with guidance from NARCH leadership.

# **Education & Outreach Projects**

Project Title: Statewide Capacity Building and Technical Assistance for Problem

Gambling Treatment Services

Proj. Director: Heather M. Gray, PhD

Funder: Massachusetts Department of Public Health, Office of Problem

Gambling Services via Health Resources in Action

Since 2020, the Division has collaborated with Health Resources in Action (HRiA) to develop and implement the Massachusetts Technical Assistance Center for Problem Gambling Treatment (M-TAC). M-TAC offers broad-based and targeted capacity building, technical assistance, and training services to build the capacity of Massachusetts problem gambling treatment service providers to deliver effective treatment programs for those at risk for or disproportionately impacted by Gambling Disorder and other co-occurring mental health and substance use disorders. Specifically, in 2023, the Division co-developed and co-presented trainings on the topics of screening and assessment for problem gambling services, promoting problem gambling treatment services, Gambling Disorder treatment best practices, and cultural humility in Gambling Disorder treatment. The Division also co-developed and co-presented at regional and site-specific meetings throughout Massachusetts.

Project Title: Project Build Up Learning Academies

Proj. Directors: Heather M. Gray, PhD & Debi A. LaPlante, PhD

Funder: Massachusetts Department of Public Health, Office of Problem

Gambling Services via Health Resources in Action

To support Project Build Up, a program of Health Resources in Action, the Division on Addiction has co-developed and co-implemented a series of Problem Gambling Learning Academies for Massachusetts-based providers interested in better serving clients experiencing gambling-related problems. Learning Academies are interactive educational experiences spanning six hours over two days. Special topics for 2023-2024 included gambling within sober homes, implications of expanded sports betting, and gambling stigma.

# **Peer-Reviewed Publications**

Title: Exploring a Multidimensional Concept of Loss Chasing Using

Online Sports Betting Records

Authors: Timothy C. Edson, PhD, Eric R. Louderback, PhD, Matthew A. Tom,

PhD, Seth P. McCullock, PhD, & Debi A. LaPlante, PhD

Funder: Entain plc (Pls: LaPlante & Nelson)

Abstract: Loss chasing is considered a defining marker, and potential risk factor, for problematic gambling. However, there have been few efforts to identify loss chasing behaviors among actual gamblers. Loss chasing also is not well defined, and often measured along a single behavioral dimension. In this preregistered study, we propose a novel multidimensional concept of loss chasing grounded in three betting domains (bet size, betting odds, time between bets). Using actual sports gambling records from a major European operator, we calculated bettors' (N = 12,992) loss chasing during their first month of activity. We created binary high/low groups for each loss chasing dimension. Membership in various combinations of 'high' groups was diverse, and none of the raw loss chasing metrics were highly correlated with one another. We assessed each high group's (and sum of high group's) ability to predict mounting losses over the following months of activity. Only one of these groups (bet size), was positively predictive of mounting losses in bivariate analysis, and none of the loss chasing groups were significant in multivariate analysis. Results suggest that loss chasing is a multidimensional concept, but the potential value of a multidimensional loss chasing concept in terms of predicting gambling harm is unclear.

Edson, T. C., Louderback, E. R., Tom, M. A., McCullock, S. P. & LaPlante, D. A. (2023). Exploring a multidimensional concept of loss chasing using online sports betting records. *International Gambling Studies*. <a href="https://doi.org/">https://doi.org/</a> 10.1080/14459795.2023.2276741

Title: A Large-Scale Prospective Study of Big Wins and their Relationship

with Future Involvement and Risk among Actual Online Sports Bettors

Authors: Timothy C. Edson, PhD, Eric R. Louderback, PhD, Matthew A. Tom,

PhD, Kahlil S. Philander, PhD, John Slabczynski, Taylor G. Lee, &

Debi A. LaPlante, PhD

Funder: Entain plc (PIs: LaPlante & Nelson)

Abstract: Clinicians have proposed that big wins early in a gambler's betting experience can lead to increased involvement, and eventually problematic gambling. Understanding how this effect manifests in online sports betting is important, as this form of gambling has grown increasingly popular worldwide and continues to expand. Using matched pair analysis and other methods (e.g., survival analysis, fixed effects regression), we examined big wins' ability to predict future gambling involvement and behavior using bet level data from 36,328 sports

gamblers who subscribed to a large, European online gambling operator. Big wins were defined two ways. Big wins in sports betting were associated with increased engagement, losses, and risk in the following weeks, with the impact declining over time. The exact timing of when a big win occurs after subscribing does not appear to have a major effect on subsequent behaviors. These findings held for both definitions of big wins. This study supports the existence of a big win effect in online sports betting, but more research is needed to determine whether there is an "early" big win effect, and whether big wins are indeed associated with problematic gambling.

Edson, T. C., Louderback, E. R., Tom, M. A., Philander, K. S., Slabczynski, J. M., Lee, T. G., & LaPlante, D. A. (2023). A large-scale prospective study of big wins and their relationship with future involvement and risk among actual online sports bettors. *Computers In Human Behavior*, 142, 107657. https://doi.org/10.1016/j.chb.2023.107657

Title: A Meta-Analytic Investigation of Problem Gambling and Self-harm: A

Causal Inference Perspective

Authors: Timothy C. Edson, PhD, John M. Slabczynski, Taylor G. Lee, William H.

B. McAuliffe, PhD, & Heather M. Gray, PhD

Funder: Entain plc (Pls: LaPlante & Nelson)

Abstract: Problem gambling may be an underappreciated treatment target for reducing self-harm. Multivariate studies examining the relationship between problem gambling and self-harm have returned inconsistent results, perhaps due to insufficient power or differences in study quality. We conducted a series of metaanalyses examining the effect of problem gambling on self-harm outcomes of varying severity. We assessed the sensitivity of results to study characteristics, publication bias, and influential cases. To highlight threats to causal inference, we evaluated each study for residual confounding bias. In total, two types of metaanalyses were adequately powered: those assessing (a) the effect of problem gambling (binary) on suicide ideation and (b) problem gambling (binary) on suicide attempt (k = 14 unique studies between the two meta-analyses). For both meta-analyses, we found a positive, statistically significant average effect of problem gambling on the respective self-harm outcome. We did not detect any influential studies among these two meta-analyses, nor residual confounding. However, these findings are limited by the overall quality of included literature. PET-PEESE analysis detected substantial potential publication bias in the main results, with both meta-analytic effects being reduced to statistical nonsignificance. All included studies also used a cross-sectional design for their analysis of interest, thus simultaneity bias cannot be ruled out. While these findings suggest there is an appreciable relationship between problem gambling and at least two forms of self-harm (suicide ideation and attempts), well-designed longitudinal research is needed to make more firm conclusions.

Edson, T. C., Slabczynski, J. M., Lee, T. G., McAuliffe, W. H. B., & Gray, H. M. (2023). A meta-analytic investigation of problem gambling and self-harm: A causal inference perspective. *Psychology of Addictive Behaviors, 37*(7), 946-960. https://doi.org/10.1037/adb00000858

Title: Recommendations for Optimizing xa?tus (First Face) for Mental Health

Training: Insights from Key Informants

Authors: Heather M. Gray, PhD, Mariana Beu Rae, PhD, Cassie Anderson, Sarah E.

Nelson, PhD, Debi A. LaPlante, PhD, & Martina M. Whelshula, PhD

Funder: National Institutes of Health (National Institute of General

Medical Sciences, National Institute of Mental Health, and National Institute on Drug Abuse) via The Healing Lodge of the Seven Nations (Grant No. 1S06GM146095) (Project Leads/Pls: Debi A. LaPlante, PhD (Administrative Core); Sarah E. Nelson, PhD (Research Core); Heather M. Gray, PhD (Capacity Building Core);

Timothy C. Edson, PhD (Pilot Project)

Abstract: Native adolescents experiencing mental health challenges, including substance misuse, often prefer to seek support from their peers and other informal sources, which may be due to lack of access to, and cultural fit with, professional behavioral health services. xa?tus (First Face) for Mental Health is a Tribal community-based intervention designed to strengthen networks of informal mental health support and open pathways to more formal support. We sought insights from key informants to optimize the planning, promotion, and delivery of First Face trainings to seven Tribal communities in the Northwest United States. We conducted three focus groups with (1) teens completing a residential chemical dependency program at the Healing Lodge of the Seven Nations (n = 10), (2) clinical staff representing the Healing Lodge's Behavioral Health Department (n = 9), and (3) community members representing educators and social service professionals at five of the Tribal nations that support the Healing Lodge (n = 6). Discussion generated planning, promotion, and training recommendations. Planning recommendations focused on showing respect for trainees' time by holding the training during convenient times and factoring in trainees' commitments to work and family, integrating the training into high school science or health education classes, and taking steps to protect trainees' physical safety in the age of COVID while avoiding "Zoom fatigue." Promotion recommendations highlighted community members' possible reluctance to become a First Face due to fear about the responsibilities associated with taking on this role and the need to emphasize the personal relevance of First Face training. In terms of training delivery, participants emphasized the importance of including engaging, interactive activities; instructing future First Faces in self-care; and acknowledging the impact of traumatic contemporary experiences on mental health, while at the same time preventing heated and distressing political debates. We describe our response to participants' recommendations and the rationale for those responses.

**Gray, H. M.**, Beu Rae, M., Anderson, C., **Nelson, S. E., LaPlante, D. A.**, Whelshula, M. M., & Bowman, M. (2023). Recommendations for optimizing *xa?tus* (First Face) for mental health training: Insights from key informants. *American Indian and Alaska Native Mental Health Research*, 30(2), 22–54.

Title: Calling for Worldwide Adoption of Gambling Disorder Screening Day

Authors: Heather M. Gray, PhD & Debi A. LaPlante, PhD

Funder: This paper was not funded by any specific grant, contract, or gift.

Abstract: In this editorial, Drs. Gray and LaPlante make a compelling case for mass screening of Gambling Disorder, as it often goes undiagnosed and untreated. Authors go on to say that Gambling Disorder is a condition that meets any of Wilson and Junger's (1968) criteria for effective mass screening, including the following four central and unique criteria: (1) Importance of the problem, (2) Sustainability, acceptability, and cost of screening instruments, (3) Ability to recognize the problem at an early stage, and (4) Availability of effective treatments. Finally, authors describe what we have learned from 10 years of Gambling Disorder Screening Day (GDSD), a grassroots movement that the Division founded in 2014. This includes the expansion of GDSD from local to state, national and international, garnering international recognition and support.

**Gray, H. M.** & **LaPlante, D. A.** (2023). Calling for worldwide adoption of Gambling Disorder Screening Day. *Addiction Research & Theory, 31*(6), 379-382. <a href="https://doi.org/10.1080/16066359.2023.2189246">https://doi.org/10.1080/16066359.2023.2189246</a>

Title: Five Barriers to Defining Responsible Drinking

Authors: Debi A. LaPlante, PhD, Taylor G. Lee, John M. Slabczynski, Howard J.

Shaffer, PhD, CAS, & Heather M. Gray, PhD

Funder: Foundation for Advancing Alcohol Responsibility (PIs: LaPlante & Gray)

Abstract: 'Responsible drinking' remains a poorly defined construct despite decades of use among diverse stake-holders including industry, academics, governmental agencies, and addiction advocacy groups. To move the field closer to a consensus definition of responsible drinking that is useful for educational and research purposes, we describe five primary barriers that discourage the construction of a shared definition of responsible drinking. These barriers include the lack of foundational empirical evidence, the social construction of the term, the possibility that different targets require different definitions, the political implications of responsible drinking, and the possibility that there is no safe level of alcohol consumption. We conclude this article by offering suggestions to overcome these barriers through further research.

LaPlante, D. A., Lee, T. G., Slabczynski, J. M., Shaffer, H. J., & Gray, H. M. (2023). Five barriers to defining responsible drinking. *Addiction Research & Theory, 31*(4), 231-238. https://doi.org/10.1080/16066359.2022.2135703

Title: Open Science Practices in Gambling Research Publications (2016–

2019): A Scoping Review

Authors: Eric R. Louderback, PhD, Sally M. Gainsbury, PhD, Robert M. Heirene,

PhD, Karen Amichia, Alessandra Grossman, Bo J. Bernhard, PhD, &

Debi A. LaPlante, PhD

Funder: Entain plc (Pls: LaPlante & Nelson)

Abstract: The replication crisis has stimulated researchers around the world to adopt open science research practices intended to reduce publication bias and improve research quality. Open science practices include study pre-registration, open data, open access, and avoiding methods that can lead to publication bias and low replication rates. Although gambling studies uses similar research methods as behavioral research felds that have struggled with replication, we know little about the uptake of open science research practices in gamblingfocused research. We conducted a scoping review of 500 recent (1/1/2016–12/1/2019) studies focused on gambling and problem gambling to examine the use of open science and transparent research practices. Our results showed that a small percentage of studies used most practices: whereas 54.6% (95% CI: [50.2, 58.9]) of studies used at least one of nine open science practices, each practice's prevalence was: 1.6% for pre-registration (95% CI: [0.8, 3.1]), 3.2% for open data (95% CI: [2.0, 5.1]), 0% for open notebook, 35.2% for open access (95% CI: [31.1, 39.5]), 7.8% for open materials (95% CI: [5.8, 10.5]), 1.4% for open code (95% CI: [0.7, 2.9]), and 15.0% for preprint posting (95% CI: [12.1, 18.4]). In all, 6.4% (95% CI: [4.6, 8.9]) of the studies included a power analysis and 2.4% (95% CI: [1.4, 4.2]) were replication studies. Exploratory analyses showed that studies that used any open science practice, and open access in particular, had higher citation counts. We suggest several practical ways to enhance the uptake of open science principles and practices both within gambling studies and in science more generally.

**Louderback, E. R.**, Gainsbury, S. M., Heirene, R. M., **Amichia, K., Grossman, A.**, Bernhard, B. J., & **LaPlante, D. A.** (2023). Open science practices in gambling research publications (2016–2019): A scoping review. *Journal of Gambling Studies*, 39, 987–1011. https://doi.org/10.1007/s10899-022-10120-y

Title: Examining Responsible Gambling Program Awareness and

Engagement Trends and Relationships with Gambling Beliefs and Behaviors: A Three-Wave Study of Customers from a Major Gambling

Operator

Authors: Eric R. Louderback, PhD, Debi A. LaPante, PhD, Brett Abarbanel, PhD,

Shane W. Kraus, PhD, Bo J. Bernhard, PhD, & Heather M. Gray, PhD

Funder: MGM Resorts International under contract and number

AWD-02-00000764 (PI: Gray)

Abstract: A considerable body of literature has examined elements of responsible gambling (RG) programs in land-based gambling venues. The present preregistered study examines GameSense RG program awareness and engagement trends and relationships with gambling beliefs and behaviors, at MGM's U.S.-based casino properties using three samples of MGM's loyalty program members. We used a repeated cross-sectional approach including observational data collected from one sample (N=3748) shortly before the rollout of GameSense in 2017–2018, and from two samples collected 1 year (N=4795) and 2 years (N=3927) after the program's implementation. We found that awareness of the GameSense program increased between pre- and 1-year post-implementation, yet did not increase further at 2-years post-implementation. Bivariate analyses showed that respondents who were aware of more GameSense components had a better understanding of gambling concepts and used more RG strategies, whereas respondents who engaged with GameSense used more RG strategies than those who did not, but did not display a better understanding of gambling concepts. The relationship between GameSense awareness and self-reported use of RG strategies remained significant in multivariate analyses with covariates. Moderation analyses indicated that a positive effect of overall GameSense engagement on gambling literacy was only found for respondents who had attended a regional property, as compared to respondents who attended Las Vegas or metropolitan properties. All effect sizes were weak, which suggests that practical impacts of the program currently are limited. Our findings have implications for research on land-based RG programs and we provide recommendations for enhancing such programs.

**Louderback, E. R., LaPlante, D. A.**, Abarbanel, B., Kraus, S. W., Bernhard, B. J., & **Gray, H. M.** (2023). Examining responsible gambling program awareness and engagement trends and relationships with gambling beliefs and behaviors: A three-wave study of customers from a major gambling operator. *Journal of Gambling Studies*, 39(1), 401–429. https://doi.org/10.1007/s10899-022-10109-7

Title: The Effectiveness of Mental Illness Stigma-Reduction Interventions: A

Systematic Meta-review of Meta-analyses

Authors: Seth P. McCullock, PhD & Rachel M. Scrivano, PhD

Funder: This paper was not funded by any specific grant, contract, or gift.

Abstract: The high prevalence of stigma toward mental illnesses contributes to the worsened health and quality of life for people with mental illnesses. Different stigmas (e.g., public, self) lead to social discrimination, social isolation, and reduce the likelihood that people with mental illnesses receive adequate treatment for their conditions. In response to this, numerous social interventions have been developed to help combat the spread of stigma. Subsequently, researchers have conducted meta-analyses to determine the effectiveness of different interventions for reducing stigma toward mental illness. To date, no efforts have been made to synthesize these meta-analyses to identify gaps in the stigmareduction literature, assess the quality of extant literature, and to identify trends in programming efforts. The present study conducted a systematic meta-review of 19 meta-analyses, drawing from the Health Stigma and Discrimination Framework, to address these gaps. Results showed that the included metaanalyses were of relatively poor quality and that interventions primarily addressed either public or self-stigma, while overlooking other stigmas. Further, metaanalyses primarily assessed the effects of contact-promotion or educational intervention strategies. There was little evidence to suggest that interventions were effective longitudinally. Implications for future research and intervention development are discussed.

**McCullock, S. P.** & Scrivano, R. M. (2023). The effectiveness of mental illness stigma-reduction interventions: A systematic meta-review of meta-analyses. *Clinical Psychology Review,* 100, 102242. <a href="https://doi.org/10.1016/j.cpr.2022.102242">https://doi.org/10.1016/j.cpr.2022.102242</a>

Title: The effects of safe zone badges in physicians' online biographies:

Evidence from an experimental study

Authors: Evan K. Perrault, PhD, Seth P. McCullock, PhD, Grace M. Hildenbrand,

PhD, & Katie J. Walter

Funder: This paper was not funded by any specific grant, contract, or gift.

Abstract: Earning digital badges to showcase a person's expertise or knowledge are becoming increasingly popular. A healthcare provider's displaying of a Safe Zone badge within their online profile may offer prospective patients a cue as to the kind of care they might receive if they selected that particular provider. Prior research indicates LGBTQ+ individuals are looking for these types of cues within providers' biographies to make their selections. A between subjects, 2 (Safe Zone badge present/absent) x 2 (male/female doctor) online experiment was conducted (n = 658). Results revealed a main effect for the presence of the Safe Zone badge. Participants had greater anticipated satisfaction, liking, were more likely to view the provider as approachable, and were more willing to schedule an appointment with the provider displaying a Safe Zone badge.

Perrault, E. K., **McCullock, S. P.**, Hildenbrand, G. M., & Walter, K. J. (2023). The effects of safe zone badges in physicians' online biographies: Evidence from an experimental study. *Health Communication*. <a href="https://doi.org/10.1080/10410236.2023.2249625">https://doi.org/10.1080/10410236.2023.2249625</a>

Title: A Comment: Positive Play is a Subset of Responsible Gambling Authors: Howard J. Shaffer, PhD, CAS, Robert Ladouceur, PhD, & Alexander

Blaszczynski, PhD

Funder: This paper was not funded by any specific grant, contract, or gift.

Abstract: Confronted with criticisms focused on the nature of Responsible Gambling (RG), this article suggests that Positive Play (PP) is a conceptual subset of Responsible Gambling and not a fully developed and independent harm prevention or reduction framework to advance public health initiatives and focus public policy. This article reviews and clarifies some of the confusing and subtle difference between Responsible Gambling and Positive Play. The discussion defines the notion of responsibility, Responsible Gambling, and Positive Play. We recognize that well-developed RG activities permit and encourage the underpinnings of PP. However, when viewed as a dependent measure, PP does not intend to reduce the prevalence of gambling-related harms or prevent the incidence of gambling-related harms. These objectives are the two basic and fundamental requirements to classify any activity as a RG program.

**Shaffer, H. J.**, Ladouceur, R., & Blaszczynski, A. (2023). A comment: Positive Play is a subset of Responsible Gambling. *Journal of Gambling Studies*, 39, 1019-1025. https://doi.org/10.1007/s10899-023-10204-3

Title: All in: A Scoping Review of the Association between Gambling and

Athletic Participation

Authors: Sarah E. Nelson, PhD, John M. Slabczynski, Taylor G. Lee, & Debi A.

LaPlante, PhD

Funder: EPIC Risk Management (PIs: Nelson & LaPlante)

Abstract: The barriers between sport and gambling recently have eroded in the US. While this presents economic opportunities, it may also increase the risk of gambling problems among athletes, particularly if athletes are already more susceptible to gambling problems than others. We conducted a scoping review of the literature that sought to characterize what is known about the relationship between participation in athletics and gambling. We identified 45 studies that met our inclusion criteria. The majority (56%) sampled athletes at the collegiate level. More than half of the studies did not include a non-athlete control group. Among the studies that did compare athletes to non-athletes, findings were mixed. Half of the studies that examined gambling involvement found that athletes had higher involvement than non-athletes, while half found no relationship. About 23% of studies that examined gambling problems found a positive relationship between being an athlete and experiencing gambling problems; 69% found no relationship, and 8% found a negative relationship. In some cases, gender appeared to moderate these relationships; in others, there was no interaction with gender. Future research should include rigorous studies that examine these relationships at diverse levels of play, include non-athlete controls, and test what mechanisms explain these relationships. 16

**Nelson, S. E., Slabczynski, J. M., Lee, T. G.,** & **LaPlante, D. A.** (2023). All in: A scoping review of the association between gambling and athletic participation. *International Gambling Studies*. <a href="https://doi.org/10.1080/14459795.2023.2229417">https://doi.org/10.1080/14459795.2023.2229417</a>

Title: Rapidly Adapting a Multicomponent Treatment for Persons

Experiencing Chronic Homelessness with Comorbid Substance Use

and Mental Health Disorders During the COVID-19 Pandemic

Authors: Paige M. Shaffer, Abigail Helm, Michael Andre, Herschelle Reaves,

Kathryn E. Bruzios, PhD, Jennifer Harter, PhD, David Smelson, PsyD,

Howard J. Shaffer, PhD, CAS

Funder: Substance Abuse and Mental Health Services Administration

CSAT (1H79TI080430-01) (PI: Smelson)

Abstract: People with co-occurring substance use and mental health disorders (COD) who experience chronic homelessness often have difficulty engaging in treatment and support services. During the Coronavirus Disease 2019 (COVID-19) pandemic this problem was compounded by community agencies reducing or eliminating in-person care to minimize transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This study examined the rapid adaptations that were made during COVID-19 to a community-based multicomponent intervention, Maintaining Independence and Sobriety Thorough Systems Integration, Outreach and Networking (MISSION), and how these changes impacted engagement in treatment and fidelity to the intervention prior to and during the COVID-19 pandemic. Guided by the Model for Adaptation Design and Impact (MADI) framework, this mixed-methods study (1) qualitatively examines the nature of the rapid adaptations made to the MISSION model with n=4 MISSION clinical program staff and (2) quantitatively examines patterns of engagement and fidelity to the MISSION model prior to and during the pandemic among n=109 people with COD who are experiencing chronic homelessness in an urban region of Massachusetts. In consultation with the MISSION developers, clinical staff made rapid innovative adaptations to MISSION. These changes, identified through the qualitative interviews, included developing safe in-person session procedures (e.g., shortening sessions, adapting group sessions to individual sessions) and strategies to engage incarcerated individuals to provide continuity of care (e.g., mailing letters and coordinating with jail staff). Despite the adaptations, adherence to the MISSION model remained consistent during COVID-19 and compared to pre-COVID-19. However, there was more adherence to the structured components of care compared to the unstructured components of care during the pandemic. Interestingly, linkages to other needed treatments and community supports increased by 522% despite the pandemic closures. This mixed-methods study demonstrated that a community-based multicomponent intervention for people experiencing chronic homelessness with COD can be adapted rapidly during a pandemic to help maintain COD treatment and with good fidelity, and that the MADI framework can help document those changes.

Thus, these findings provide treatment settings with helpful guidance for community-based COD interventions and public health emergency preparedness.

Shaffer, P. M., Helm, A., Andre, M., Reaves, H., Bruzios, K., Harter, J., Smelson D., & **Shaffer, H. J.** (2023). Rapidly adapting a multicomponent treatment for persons experiencing chronic homelessness with comorbid substance use and mental health disorders during the COVID-19 pandemic. *Medical Research Archives, European Society of Medicine, 11*(10). <a href="https://doi.org/10.18103/mra.v11i11.4507">https://doi.org/10.18103/mra.v11i11.4507</a>

Title: Reentry Service Engagement among a Reentry Population with Co-

occurring Mental Health and Opioid Use Disorders in Massachusetts

Jails

Authors: Paige M. Shaffer, David Smelson, PsyD, Abigail Helm, PsyD, Ayorkor

Gaba, Sarah Marcus, & Howard J. Shaffer, PhD, CAS

Funder: Substance Abuse and Mental Health Services Administration

(#TI081717) via Massachusetts Department of Public Health

Bureau of Substance Addiction Services (PI: Smelson)

Abstract: Co-occurring opioid use and mental health disorders (COD) are common among people with criminal legal involvement. Reentry is a vulnerable period with low treatment engagement, often resulting in relapse, reincarceration, and overdose. While both linkage and multicomponent COD wraparound interventions have supported reentry, little is known about which are most effective for treatment engagement post release. This quasi-experimental study included 293 nonrandomized persons involved in the criminal legal system enrolled in a multicomponent COD intervention (n=173) or a linkage only model (n=120) for treatment. Kaplan Meier Curves and Cox Proportional Hazards were computed to determine differences in engagement. Engagement was significantly different between interventions ( $X^2=58.33$ , p < .0001). We observed a 73.3% reduction in hazard of early discharge for participants receiving the multicomponent COD intervention as compared to the linkage only model (p < .0001) and a higher 12month engagement rate (51.5%) compared to the linkage only model (20.8%). Future research should include a randomized controlled trial to examine factors that influence post-release engagement as well as treatment effects and outcomes. We suggest that programs consider both interventions and assess client reentry needs in advance of release to match to the best suited post-release COD treatment.

Shaffer, P. M., Smelson, D., Helm, A., Gaba, A., Marcus, S., & **Shaffer, H. J.** (2023). Reentry service engagement among a reentry population with co-occurring mental health and opioid use disorders in Massachusetts jails. *Journal of Psychology and Psychotherapy Research*, *10*, 85-96. <a href="https://doi.org/10.12974/2313-1047.2023.10.08">https://doi.org/10.12974/2313-1047.2023.10.08</a>

# **Continuing Education Activities**

## The Brief Addiction Science Information Source (BASIS) Microlearning Course

Funder: DraftKings, Inc.

The Division on Addiction developed and launched The Brief Addiction Science Information Source (BASIS) Microlearning Course, a free educational opportunity for allied health professionals to learn about addiction research and its implications for treatment and public health. This online course currently covers research findings from 2016 through 2022 and offers 28, one-hour continuing education (CE) modules that offer the opportunity to learn more about addiction research and its implications for treatment and public health. Learners can earn 1.0 hours of CE credit per module.

# Community Voices in Recovery: A Health Equity Continuing Education Course

Funder: Massachusetts Department of Public Health, Office of Problem Gambling Services via Health Resources in Action

The Division on Addiction and Health Resources in Action launched a new on-demand training for allied health providers, offered through the MA Technical Assistance Center for Problem Gambling Treatment. This course centers minoritized voices in continuing education through the art of storytelling. Storytelling holds the potential to promote empathy and understanding perspectives because it counters negative stereotypes and promotes connection on a universal human level.

"I highly recommend The BASIS Microlearning course. The shorter modules made it easy with my busy schedule and I saved hundreds of dollars because the course is free of charge. I wasn't sure how I would be able to afford getting relicensed this year. Now, I can continue providing care during this unprecedented demand for mental health services, and with new cutting edge addiction science to boot! As a social worker, the savings that this course provided was a life saver, truly. And I am better prepared to help my clients."

- Lindsay G., Massachusetts Social Worker

# **Continuing Education Activities**

## **Recurring Live Trainings**

Funder: Massachusetts Department of Public Health, Office of Problem Gambling

Services via Health Resources in Action

• Cultivating Cultural Humility in Practice: A Critical Self-Reflection Journey

- Introduction to Gambling Disorder Treatment Best Practices
- Introduction to Screening & Assessment for Gambling Disorder: Part I (Screening)
- Introduction to Screening & Assessment for Gambling Disorder: Part II (Assessment)
- Promoting Problem Gambling Services

## **Statewide Meetings**

Funder: Massachusetts Department of Public Health, Office of Problem Gambling

Services via Health Resources in Action

- Expanding Your Problem Gambling Resource Network
- Promoting Problem Gambling Awareness
- Sports Betting in Massachusetts
- Supporting People in Recovery during the Holiday Season

## **Learning Academies**

Funder: Massachusetts Department of Public Health, Office of Problem Gambling

Services via Health Resources in Action

 Project Build-Up Learning Academy: Exploring Problem Gambling in Sober Housing Environments

- Project Build-Up Learning Academy: Promoting and Providing Problem Gambling
   Treatment Services to Black, African American, and African Descent Communities
- Project Build-Up Learning Academy: Promoting and Providing Problem Gambling
   Treatment Services to to Those with Incarceration Experience

# **Continuing Education Activities**

## **Other Trainings**

Title: **Gambling 101: Screening,** 

**Assessment, & Treatment** 

Funder: Massachusetts Department of

Public Health, Office of Problem

Gambling Services via

Health Resources in Action

#### Presented to:

- Residential treatment providers at North Suffolk Community Services
- Outpatient treatment providers at North Suffolk Community Services

### 2023 CE Stats

- 162 unique participants
- 26 unique courses and trainings providing CE credit
- Nearly 100 students have signed up for the BASIS Microlearning course since it launched in October 2023

Title: **Problem Gambling Overview** 

Funder: Massachusetts Department of Public Health, Office of Problem

Gambling Services via Health Resources in Action

#### Presented to:

 Association for Behavioral Health, Structured Outpatient Addiction Program (SOAP) Committee

#### Other Outreach Activities

# Research Snapshots

Plain-language infographics that the Division staff create to summarize its gambling research

## **Poker Play**

Funder: Entain plc

 Second Session at the Virtual Poker Table: A Contemporary Study of Actual Online Poker Activity

## **Big Wins**

Funder: Entain plc

 A Large-scale Prospective Study of Big Wins and their Relationship with Future Involvement and Risk among Actual Online Sports Bettors

# 10th Annual Gambling Disorder Screening Day

Gambling Disorder Screening Day (GDSD) is a one-day event held annually on the second Tuesday of March during Problem Gambling Awareness Month.

This year, GDSD took place on March 14, 2023, and the Division celebrated 10 years of coordinating this grassroots event.

This event was established in 2014 by the Division. Although the Division supports year-round screening for gambling-related problems, GDSD is intended to increase awareness of gambling harm, and educate and support providers who want to screen for Gambling Disorder. This international grassroots movement addresses the imperative to detect



Example of 2023 GDSD swag distributed to 18 U.S. states and 1 U.S. territory

gambling-related problems as early as possible. Since its conception, GDSD has grown to include supporters and screeners from across the United States and around the world.

With funding from DraftKings, Inc., the Division translated and printed 10,000 Brief Biosocial Gambling Screen (BBGS) pocket screeners in Spanish and simplified Chinese. Pocket screeners are the size of a folded business card and include the three-question BBGS, facts about Gambling Disorder, and resources for individuals who might be struggling with their gambling (e.g., the National Problem Gambling Helpline number). The Division also created

merchandise to commemorate the 10th annual GDSD, including pens, post-it notes, and mugs. These materials were distributed to GDSD hosts and supporters, as well as community-based organizations and addiction treatment providers in Massachusetts.

The Division updated its GDSD Toolkit with new resources. The GDSD Promotion Guide provides participants with outreach ideas, promotional language, and official logos and graphics available for download.

Division staff held a tabling event on GDSD at the CHA Everett Hospital. This tabling event was for patients, caregivers, and CHA staff to learn more about GDSD, gain insight into their relationship with gambling by completing a gambling screen, and access gambling-related resources. Resources available at the tabling event included BBGS pocket screeners in

# 10th Annual Gambling Disorder Screening Day

multiple languages and resource packets with information on gambling support groups, referral information, helplines, and recovery resources. At the tabling event, the Division also had 10th annual GDSD merchandise, including pens, post-its, and BBGS magnets donated to the Division by the International Center for Responsible Gaming, a long-time supporter of GDSD.

This year, at least 180 individuals and organizations participated in GDSD. Participants represented 34 U.S. states, one U.S. territory, and seven countries. Participants included research institutions and academics, employee assistance and wellness programs, prevention-focused organizations, mental health and addiction treatment programs, community health centers, hospital systems, gambling operators, local and state governmental organizations, national and state problem gambling councils, education and awareness programs/initiatives, student health and wellness centers, homeless shelters, professional organizations, and more.



GDSD Tabling Event at Everett Hospital. Left to right: Caitlyn S. Matykiewicz, MPH (Community Health Educator), Nakita E. Sconsoni, MSW (Community Health Educator), Taylor G. Lee (Research Coordinator), Kira E. Landauer, MPH (Community Health Educator Supervisor)

GDSD hosts are given an optional host data reporting form to complete after their

Cambling Disorder Screening Day

Launched in 2014 by the Division on Addiction

2 and Tuesday of March

Encourage mental health/substance use disorder orther high-risk people

Recommended tool: 3-item Brief Bosocial Gambling

Grassroots growth in the U.S. and beyond

2014:

22 Strib. We house & supporture

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Heather M. Gray, PhD presents on Gambling Disorder Screening Day at the 2023 International Conference on Gambling & Risk Taking

event. This form includes data pertaining to the number of screens administered and demographic information of individuals who had a positive gambling screen. This year, 11 GDSD hosts completed the data reporting form. They included behavioral health and addiction treatment providers, a state problem gambling council, and GameSense Information Centers in Massachusetts casinos. Four hundred and eighty-six individuals were screened for Gambling Disorder and 104 (21.4%) screened positive. Of the positive screens, 63.7% identified as male and 36.3% identified as female. The age distribution of positive screens was: age 18 - 25 (2.0%), age 26 - 44 (30.4%), age 41 - 55 (36.3%), age 56+ (31.4%).

To become a GDSD host, email info@divisiononaddiction.org.

# **Academic Presentations**

## Studies of Gambling Behaviors and Risk Factors Using Actual Player Records

Exploring a Multidimensional Understanding of 'Loss Chasing' and Its Manifestation in Actual Gambling Record Data

Timothy C. Edson, PhD, 18th International Conference on Gambling & Risk-Taking

Implications of Big Wins for Gambling Behavior and Their Effects on Future Sports Betting

Eric R. Louderback, PhD, Responsible Gaming Association of New Mexico 2023 annual conference

A Large-Scale Prospective Study of Big Wins and Their Relationship with Future Involvement and Risk Among Actual Online Sports Bettors

Timothy C. Edson, PhD, 18th International Conference on Gambling & Risk-Taking

Measuring Bets' Riskiness Across Multiple Forms of Gambling

Matthew Tom, PhD, 18th International Conference on Gambling & Risk-Taking

Online Poker Post-Boom: Sitting at the Virtual Poker Table Ten Years Later Matthew Tom, PhD, 18th International Conference on Gambling & Risk-Taking

Overtime: Long-term Trajectories of Play among Highly-Involved and Less-Involved Online Sports Bettors

Sarah E. Nelson, PhD, 18th International Conference on Gambling & Risk-Taking

Pareto Distributions in Gambling: Is Most Spending Really Attributed to the 'Vital Few'? Eric R. Louderback, PhD, 18th International Conference on Gambling & Risk-Taking

## **Studies of Open Science and Gambling**

Advancing Open Science Principles and Practices in Gambling Research
Debi A. LaPlante, PhD, 18th International Conference on Gambling & Risk-Taking

**Open Science in Gambling Research** 

Debi A. LaPlante, PhD, International Center for Responsible Gaming Webinar Series

## **Studies of CARS and Development of CARS-Silver**

Screening for Mental Health Among DUI Offenders: Updated Research and Best Practices for using the Computerized Assessment and Referral System

Sarah E. Nelson, PhD, American Bar Association Judicial Outreach Liaisons and Judicial Fellows Program Webinar Series

# **Academic Presentations**

## Other Gambling-Related Literature Reviews and Meta-Analysis

**Linkages between Problem Gambling and Self-Harm: Meta-Analysis Insights**Heather M. Gray, PhD, Cambridge Health Alliance Department of Psychiatry Grand Rounds

A Meta-Analytic Investigation of Problem Gambling and Self-Harm: A Causal Inference Perspective

Heather M. Gray, PhD, 18th International Conference on Gambling & Risk-Taking

## **Gambling Disorder Screening Day**

Gambling Disorder Screening Day: A Ten-Year Retrospective
Heather M. Gray, PhD, 18th International Conference on Gambling & Risk-Taking

## **Studies of Responsible Gambling**

### **Advancing Systems-Based Responsible Gambling**

Debi A. LaPlante, PhD, 18th International Conference on Gambling & Risk-Taking

# Best Practice Recommendations for Designing Responsible Gambling Messages: A Scoping Review

Seth P. McCullock, PhD, 18th International Conference on Gambling & Risk-Taking

## Research on Responsible Gambling: Where Are We Going?

Sarah E. Nelson, PhD, Panelist, International Center for Responsible Gaming webinar

## Responsible Gambling Algorithms: What Are We Really Measuring?

Sarah E. Nelson, PhD, 18th International Conference on Gambling & Risk-Taking

# Responsible Gambling Program Awareness and Engagement, and Gambling Beliefs and Behaviors: A Three-Wave Study of Customers from a Large Gambling Operator

Eric R. Louderback, PhD, 18th International Conference on Gambling & Risk-Taking

# Strategies for Correcting Misinformation Related to Gambling: Lessons Learned from Public Health

Seth P. McCullock, PhD, 18th International Conference on Gambling & Risk-Taking

# **Faculty Promotion Update**

#### Dr. Sarah E. Nelson Promoted to Associate Professor of Psychology

As of January 2023, Dr. Sarah E. Nelson, Director of Research at the Division, was promoted to Associate Professor of Psychology in the Department of Psychiatry at Harvard Medical School.

At the Division, Dr. Nelson's work covers many facets of addiction, including the relationship between psychiatric comorbidity and DUI offense, how best to develop community recovery environments for youth with substance use problems, and the distribution and determinants of gambling and gambling problems.

Dr. Nelson's DUI work began with her collaboration on an NIH R01 grant to study substance use and mental health in repeat DUI offenders. Analyses of this sample demonstrated considerable psychiatric comorbidity and a relationship between that comorbidity and DUI re-offense. Based on this work, Dr. Nelson has been the PI on a multi-year set of projects focused on applying that research to clinical practice. Through these projects, and in collaboration with the Division's computer programming consultant, Scarvel Harris, ALM, she has led the development and implementation of a mental health assessment system (the Computerized Assessment and Referral System: CARS) at DUI programs across the state of Massachusetts, a randomized clinical trial of CARS at two of those agencies, and a six-month follow-up with more than 300 DUI offenders enrolled in the study. In 2017, she led the expansion of CARS activities



Sarah E. Nelson, PhD, Director of Research, Division on Addiction; Associate Professor of Psychology in the Department of Psychiatry, Harvard Medical School

to include six national pilot sites who used the program with their DUI clients. CARS was released publicly in June 2017 at <a href="www.carstrainingcenter.org">www.carstrainingcenter.org</a>. Since then, Dr. Nelson has overseen the creation of adaptations of CARS that have included diagnostic updates, a Spanish version of the CARS screener, and a version of CARS that can be used in more general behavioral health settings.

Currently, Dr. Nelson is involved in the culmination of a decade-long project in collaboration with the Healing Lodge of the Seven Nations to understand and strengthen recovery environments for youth with substance use and mental health issues in the seven Tribes affiliated with the Healing Lodge. As part of that project, the Healing Lodge and the Division collaborated to develop a culturally-grounded curriculum to train community members in how to support someone experiencing a mental health or substance use crisis or challenge. As the project leader of the research core for an NIH NARCH Center grant, Dr. Nelson is overseeing a longitudinal evaluation of the implementation of the First Face mental health curriculum in these seven Tribes.

Dr. Nelson's gambling-related work has focused on the etiology of gambling problems. She has been involved as an investigator and PI on multiple multi-year studies of online gambling using actual gambling records. This work involves mapping patterns of online betting behavior, developing predictive models based on early play patterns to detect subscribers who are at risk for gambling problems, and examining specific characteristics of sports gambling that might relate to the development of gambling problems.

Dr. Nelson has given invited presentations at local, national and international conferences and seminars. Dr. Nelson interweaves all of her presentations with examples and exercises that provide a basic survey of how science progresses and encourage people to think critically about research and practice. More formally, she has developed and co-directed a research methods seminar for health professionals at Cambridge Health Alliance, and an online CME course, "Research Methods for Health Professionals," that was available through the Harvard Medical School online CME program. She is currently collaborating on an online course that weaves together an overview of gambling disorder and research methods.

# **Websites**

#### Division on Addiction Main Website (divisiononaddiction.org)

The hub of Division activities, including our research projects and library, education and training opportunities, plus outreach and other resources. Open Science products (e.g., Research Snapshots) can also be found here.

#### NEW! Division on Addiction's Online Courses (divisiononaddictioncourses.org)

In 2023, the Division established its own website for online CE courses starting with The BASIS Microlearning Course—a free educational opportunity consisting of 28 one-hour continuing education (CE) modules that offer allied health professionals the opportunity to learn more about addiction research and its implication for treatment and public health. Forthcoming CE courses in 2024 include Science Literacy in Your Addiction Practice and The After Gambling Podcast Science Accelerator Course.

#### REVISED! The BASIS Website (basisonline.org)

Through The Brief Addiction Science Information Source (BASIS), the Division provides a weekly summary of current, peer-reviewed addiction science that would otherwise be paywall-protected to the general public. The BASIS minimizes addiction's harmful effects by providing the general public, treatment providers, policy makers, and others with access to addiction research. The new website has improved functionality and a robust set of revised addiction resources.

#### **CARS Training Center (carstrainingcenter.org)**

The Computerized Assessment and Referral System (CARS) is an easy-to-use computer guided interview that includes comprehensive psychosocial and mental health assessments. The CARS website is a one-stop-shop to download and start using the CARS software, including a Help Center.

#### The Transparency Project (thetransparencyproject.org)

The Division's public-facing data repository that contains codebooks, data sets, and code that others can use to replicate the Division's work or test their own research ideas in the Division's data.

#### **Expressions of Addiction (expressionsofaddiction.com)**

The Division's online exhibit of original photographic portraits that depict people in various stages and expressions of addiction.

The Division builds and maintains all of its own websites.

# **Faculty & Staff List**

#### Timothy C. Edson, PhD

Research & Evaluation Scientist, Division on Addiction Instructor in Psychology in the Department of Psychiatry Harvard Medical School

#### Vanessa H. Graham, BA

Associate Director of Administration, Division on Addiction

#### Heather M. Gray, PhD

Director of Academic Affairs, Division on Addiction Assistant Professor of Psychology in the Department of Psychiatry Harvard Medical School

#### Scarvel Harris, ALM

IT Consultant, Division on Addiction

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#### Taylor G. Lee, BS

Research Coordinator, Division on Addiction

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#### Caitlyn S. Matykiewicz, MPH

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#### Sarah E. Nelson, PhD

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#### Nakita E. Sconsoni, MSW

Community Health Educator, Division on Addiction

#### Howard J. Shaffer, PhD, CAS

Distinguished Faculty, Division on Addiction

Morris E. Chafetz Associate Professor of Psychiatry in the Field of Behavioral Sciences at Harvard Medical School

#### Annette M. Siu, BA

Research Coordinator, Division on Addiction

#### John Slabczynski, BA

Research Coordinator, Division on Addiction

#### Matthew Tom, PhD

Research Data Analyst, Division on Addiction Associate in Psychiatry, Harvard Medical School



Division Senior Research Team (left to right): Matthew Tom, PhD, Debi A. LaPlante, PhD, Sarah E. Nelson, PhD, Seth P. McCullock, PhD, Timothy C. Edson, PhD, Eric R. Louderback, PhD, and Heather M. Gray, PhD