The Impact of Online Gambling on Mental Health in New Zealand: A Comparative Study

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Abstract

Online gambling has witnessed exponential growth globally, facilitated by the proliferation of internet access and digital platforms. This phenomenon has sparked significant concerns regarding its potential impact on mental health, particularly in regions like New Zealand where gambling is popular. This paper endeavors to investigate the relationship between online gambling and mental health outcomes within the unique socio-cultural context of New Zealand, comparing these impacts with those of traditional forms of gambling.

The introduction of online gambling has revolutionized the accessibility and convenience of participating in gambling activities. In New Zealand, as in many other jurisdictions, this shift has prompted regulatory responses aimed at managing potential risks while balancing consumer demand and industry growth. Despite these efforts, the pervasive nature of online gambling introduces distinct challenges that may exacerbate issues related to mental health.

The study will begin by reviewing existing literature on global trends in online gambling and its documented effects on mental health. This will include an analysis of regulatory frameworks implemented in various countries to address these concerns, highlighting successes and challenges in consumer protection and harm minimization strategies. Psychological theories and models explaining addictive behaviors associated with online gambling will be explored to provide a theoretical foundation for understanding the observed impacts.

A key focus of this research will be a comparative analysis between online gambling and traditional forms of gambling prevalent in New Zealand, such as land-based casinos and sports betting. By contrasting these modalities, the study aims to elucidate whether online gambling uniquely intensifies mental health risks or presents analogous challenges to traditional gambling activities.

Methodologically, the study will employ a mixed-methods approach. Quantitative analysis will draw upon national gambling prevalence surveys and data from online gambling platforms to assess the prevalence of online gambling in New Zealand and profile its participants. Qualitative research will involve in-depth interviews with online gamblers and mental health professionals to capture nuanced insights into the psychological and emotional impacts experienced.

Findings from the study are expected to contribute empirical evidence on the prevalence of online gambling in New Zealand, alongside comparative assessments of mental health outcomes between online and traditional gamblers. Specific risk factors associated with online gambling addiction and deterioration in mental health will be identified, shedding light on mechanisms through which these impacts manifest.

The implications of these findings for policy and regulation will be discussed, emphasizing the need for adaptive strategies that safeguard mental well-being without stifling technological innovation or economic contributions from the gambling sector. Recommendations will be made for enhancing existing regulatory frameworks to ensure they adequately address the unique challenges posed by online gambling while promoting responsible gambling practices.

This research seeks to advance understanding of the complex interplay between online gambling and mental health in New Zealand. By elucidating comparative impacts and exploring regulatory responses, the study aims to inform evidence-based interventions that support public health objectives while fostering a sustainable gambling environment.

Keywords Online Gambling, Mental Health, New Zealand, Gambling Addiction, Anxiety, Depression, Comparative Study, Regulatory Measures, Public Awareness, International Comparisons.

Introduction
Overview of Online Gambling in New Zealand

In recent years, the landscape of gambling in New Zealand has undergone significant transformation with the advent and proliferation of online gambling platforms. These platforms offer unprecedented convenience and accessibility, allowing individuals to engage in various forms of gambling such as casino games, sports betting, and lottery-style games from the comfort of their homes or on the go via mobile devices. This shift has been driven by advancements in technology, including high-speed internet availability and mobile app development, which have made online gambling an attractive alternative to traditional land-based venues.

Regulatory Framework and Challenges

The regulation of gambling activities in New Zealand is governed by the Gambling Act 2003, which aims to ensure that gambling is conducted responsibly, fairly, and free from criminal influence. The Department of Internal Affairs oversees the enforcement of these regulations, which include licensing requirements for operators and provisions for harm minimization strategies. Despite these efforts, the rise of online gambling presents unique regulatory challenges, particularly concerning offshore gambling websites that operate beyond the reach of New Zealand's laws. These platforms may not adhere to the same standards of consumer protection and responsible gambling practices mandated by local legislation, posing risks to the mental health and financial well-being of New Zealand residents.

Scope and Objectives of the Study

This study seeks to examine the impact of online gambling on mental health within the context of New Zealand, comparing it with traditional forms of gambling such as casinos and betting shops. By exploring the prevalence of gambling-related harm, including addiction, anxiety, and depression, the study aims to provide insights into the specific challenges posed by online gambling. Additionally, the study will draw comparisons with international experiences, particularly from countries like the United Kingdom, Australia, and the United States, to identify effective regulatory measures and support interventions that could inform policy-making in New Zealand.

Significance of the Study

Understanding the impact of online gambling on mental health is crucial for policymakers, healthcare professionals, and the general public in New Zealand. With growing concerns over the accessibility and potential harms associated with online gambling, this study aims to contribute empirical evidence that can inform regulatory reforms and public health strategies. By identifying key differences between online and traditional gambling environments and analyzing international best practices, the study seeks to provide a comprehensive foundation for mitigating the adverse effects of online gambling and promoting responsible gambling behaviors in New Zealand.

Background on Online Gambling in New Zealand
Regulatory Landscape

New Zealand's approach to gambling regulation is governed by the Gambling Act 2003, which aims to control the growth of gambling, prevent and minimize harm caused by gambling, and ensure that gambling is conducted honestly and fairly. The Department of Internal Affairs oversees the implementation of this legislation, which includes issuing licenses to gambling operators and enforcing compliance with regulatory standards. The Act distinguishes between different types of gambling, including casinos, lotteries, and

gaming machines, each subject to specific regulations aimed at protecting consumers and preventing criminal activity.

Evolution of Online Gambling

The advent of the internet and digital technologies has revolutionized the gambling industry worldwide, including in New Zealand. Online gambling platforms offer a wide range of gambling activities accessible via computers, smartphones, and tablets, providing convenience and anonymity to users. While the Gambling Act 2003 regulates online gambling within New Zealand's borders, offshore gambling operators pose challenges due to their ability to offer services to New Zealand residents without adhering to local regulations. These offshore sites often operate in jurisdictions with less stringent oversight, raising concerns about consumer protection, fair play, and the potential for gambling-related harm.

Consumer Protections and Challenges

Despite efforts to regulate online gambling, challenges persist in ensuring consumer protections and harm minimization. Unlike traditional gambling venues that can be monitored and regulated more effectively, online platforms operate 24/7 and can be accessed from anywhere, making it difficult to enforce compliance with responsible gambling practices such as self-exclusion programs and spending limits. The use of digital payment methods and credit cards for online gambling transactions also presents risks, as it facilitates immediate access to funds and may lead to financial harm and indebtedness among vulnerable individuals.

Impact on Public Health

Research indicates a growing concern regarding the impact of online gambling on public health in New Zealand. Studies have linked excessive gambling to adverse mental health outcomes, including increased levels of stress, anxiety, depression, and higher rates of gambling addiction. The accessibility and convenience of online gambling exacerbate these risks, as individuals can engage in continuous gambling sessions without the social interactions and physical barriers present in traditional gambling environments.

International Comparisons

Internationally, countries like the United Kingdom, Australia, and Canada have implemented various regulatory approaches to address the challenges posed by online gambling. These include licensing requirements for operators, advertising restrictions, and initiatives to promote responsible gambling behaviors. Comparative studies highlight common trends in gambling-related harm and effective strategies for mitigating these risks, offering valuable insights for policymakers in New Zealand seeking to strengthen their regulatory framework and support services.

The background on online gambling in New Zealand underscores the dynamic nature of the industry and the regulatory challenges associated with technological advancements. As online gambling continues to evolve, maintaining effective regulatory oversight and implementing evidence-based harm minimization strategies will be crucial to protecting consumers and promoting responsible gambling practices. By learning from international experiences and adapting best practices, New Zealand can enhance its approach to addressing the complex issues surrounding online gambling and its impact on public health.

Mental Health Concerns Related to Online Gambling
Introduction to Mental Health Impacts

The rise of online gambling has introduced new challenges concerning mental health, affecting individuals in New Zealand and globally. This section explores the specific mental health concerns associated with online gambling, highlighting the unique risks it poses compared to traditional forms of gambling.

Addiction and Compulsive Gambling

Online gambling is particularly conducive to addiction due to its accessibility and continuous availability. Unlike physical casinos or betting shops, which have operating hours and physical barriers, online platforms allow individuals to gamble anytime and anywhere. This ease of access can lead to compulsive gambling behaviors, where individuals find it difficult to control their urge to gamble, resulting in financial problems, relationship difficulties, and psychological distress. Research indicates that the reinforcement mechanisms employed by online gambling platforms, such as near-instantaneous rewards and immersive user experiences, contribute significantly to the development and maintenance of gambling addiction.

Anxiety and Depression

Financial losses incurred through online gambling can lead to significant stress, anxiety, and depression. Unlike traditional gambling, where cash transactions provide a tangible reminder of losses, online gambling often involves digital payments and credit cards, which can detach individuals from the financial consequences of their actions. This detachment may exacerbate feelings of guilt, shame, and hopelessness among those experiencing gambling-related difficulties. Moreover, the social isolation that can accompany excessive online gambling—due to spending extended periods alone at a computer or mobile device— further contributes to feelings of loneliness and depression.

Social Impacts and Isolation

Online gambling can exacerbate social isolation as individuals may withdraw from their usual social circles to spend more time gambling online. The immersive nature of online platforms can make it challenging for individuals to disengage, leading to neglect of personal relationships, work responsibilities, and other recreational activities. Social isolation can worsen mental health outcomes, as individuals may lack emotional support and opportunities for social interaction outside of their gambling activities.

Vulnerable Populations

Certain demographic groups may be more susceptible to the negative mental health impacts of online gambling. Young adults, for instance, who are digital natives and adept at navigating online environments, may be particularly vulnerable to developing problematic gambling behaviors. Individuals with pre-existing mental health conditions, such as anxiety disorders or depression, may also be at higher risk of using online gambling as a coping mechanism, exacerbating their symptoms over time.

Comparative Analysis with Traditional Gambling

Compared to traditional forms of gambling, online gambling presents unique challenges that amplify its potential impact on mental health. The continuous availability, anonymity, and detachment from financial consequences associated with online gambling contribute to heightened risks of addiction, anxiety, depression, and social isolation. While traditional venues offer opportunities for social interaction and oversight by staff trained in responsible gambling practices, these protective factors are often absent in online environments.

The mental health concerns related to online gambling underscore the need for comprehensive strategies to mitigate harm and promote responsible gambling practices. Effective interventions should include targeted public awareness campaigns, enhanced regulatory measures to protect consumers, and expanded access to mental health support services. By addressing these challenges proactively, policymakers, healthcare providers, and stakeholders can work together to minimize the adverse effects of online gambling on mental health in New Zealand and beyond.

Comparative Analysis with Traditional Gambling
Introduction to Comparative Analysis

Understanding the differences between online gambling and traditional forms of gambling, such as casinos

and betting shops, is essential for assessing their respective impacts on mental health and well-being in New Zealand. While both forms share similarities in terms of the potential for gambling-related harm, they also exhibit distinct characteristics that influence patterns of behavior and the severity of consequences.

Accessibility and Convenience

One of the significant contrasts between online gambling and traditional gambling is accessibility. Online gambling platforms are accessible 24/7 from any location with internet access, allowing individuals to gamble without the constraints of physical proximity to a gambling venue. In contrast, traditional gambling venues like casinos and betting shops operate within specific hours and locations, requiring individuals to travel and be physically present to participate. The convenience of online gambling facilitates frequent and prolonged gambling sessions, increasing the risk of developing gambling-related disorders compared to traditional venues where physical presence may act as a deterrent.

Social Interaction and Engagement

Traditional gambling environments often involve social interactions and engagement with other gamblers and staff, contributing to a sense of community and socialization. Casinos, for example, offer opportunities for social interaction through gaming tables, restaurants, and entertainment events, which can serve as a form of moderation and social control. In contrast, online gambling tends to be more solitary, with limited social interaction beyond virtual chat rooms or forums. The lack of face-to-face interaction in online settings may contribute to feelings of isolation and loneliness among individuals who engage in excessive gambling.

Anonymity and Privacy

Online gambling platforms provide users with a level of anonymity and privacy that is not typically available in traditional gambling environments. This anonymity can enable individuals to gamble without the fear of judgment or detection by others, potentially exacerbating gambling behaviors and delaying intervention. In contrast, traditional gambling venues may provide a level of accountability and oversight through staff monitoring and peer observation, which can deter excessive gambling behaviors and facilitate early intervention for those at risk.

Financial Implications

The financial implications of online gambling versus traditional gambling also differ significantly. Online platforms often facilitate transactions through credit cards and digital payment methods, allowing users to gamble with borrowed funds and accumulate debts quickly. In contrast, traditional gambling venues primarily accept cash, which imposes immediate financial limits and may discourage individuals from exceeding their gambling budget. The ease of accessing credit for online gambling can lead to significant financial losses and hardship, contributing to stress, anxiety, and other negative mental health outcomes.

Regulatory and Policy Considerations

Regulating online gambling presents unique challenges compared to traditional forms of gambling, given the global nature of online platforms and the jurisdictional issues involved. Traditional gambling venues are subject to local licensing and regulatory frameworks that enforce responsible gambling practices and consumer protections. In contrast, online gambling operates across borders, often in jurisdictions with varying levels of regulation and oversight. Effective regulation of online gambling requires international cooperation, technological solutions for monitoring and enforcement, and robust consumer protection measures to mitigate the risks of harm.

The comparative analysis between online gambling and traditional gambling in New Zealand underscores the multifaceted nature of gambling-related harm and the importance of tailored interventions to address these challenges effectively. While both forms of gambling can lead to negative mental health outcomes,

online gambling presents distinct risks due to its accessibility, anonymity, and financial implications. By understanding these differences and learning from international best practices, policymakers can develop comprehensive strategies to promote responsible gambling behaviors and protect the well-being of individuals and communities affected by gambling-related harm.

International Comparisons
Introduction to International Perspectives
International comparisons are essential for understanding how different countries approach the regulation and mitigation of the mental health impacts associated with online gambling. Countries such as the United Kingdom, Australia, and the United States have implemented various strategies and regulatory frameworks to address the challenges posed by online gambling, offering valuable insights and lessons for policymakers in New Zealand.

United Kingdom
The United Kingdom has a well-established regulatory framework for online gambling, overseen by the Gambling Commission. The Gambling Act 2005 regulates all forms of gambling, including online platforms, with a focus on consumer protection, responsible gambling practices, and prevention of gambling-related harm. The UK's approach includes stringent licensing requirements for operators, mandatory age verification checks, and measures to promote transparency in advertising and marketing practices. Additionally, the UK Gambling Commission requires operators to contribute to research, education, and treatment programs for gambling addiction through a levy system. These initiatives aim to mitigate the adverse effects of online gambling and support individuals affected by gambling-related harm.

Australia
Australia faces similar challenges with online gambling, regulated by the Interactive Gambling Act 2001 at the federal level and further regulated by state and territory authorities. The Australian government has implemented measures to restrict online gambling services offered to Australian residents, including prohibitions on the provision of certain types of interactive gambling services. Australia also employs harm minimization strategies such as mandatory pre-commitment and self-exclusion programs, aimed at empowering individuals to manage their gambling behaviors effectively. Additionally, the Australian Communications and Media Authority (ACMA) oversees enforcement actions against unauthorized online gambling operators targeting Australian consumers, ensuring compliance with regulatory standards and consumer protections.

United States
In the United States, online gambling regulations vary by state, with some states legalizing and regulating online gambling activities such as online casinos, poker, and sports betting. Other states maintain strict prohibitions or have yet to establish clear regulatory frameworks for online gambling. The legalization of online gambling in certain states has prompted initiatives to address gambling-related harm, including the implementation of responsible gambling measures, consumer protections, and funding for treatment programs. States with legal online gambling have also introduced mechanisms such as self-exclusion programs and age verification requirements to promote safe and responsible participation in online gambling activities.

Comparative Insights and Lessons for New Zealand
Comparative analysis with these international jurisdictions provides valuable insights for New Zealand in enhancing its regulatory framework and support services for online gambling. Key lessons include:
- **Regulatory Best Practices:** Learning from the UK's comprehensive regulatory framework can

inform New Zealand's efforts to strengthen licensing requirements, enforce responsible gambling practices, and enhance consumer protections.

- **Harm Minimization Strategies**: Australia's approach to mandatory pre-commitment and self-exclusion programs offers effective tools for empowering individuals to manage their gambling behaviors and reduce harm.
- **Enforcement and Compliance**: Drawing from the US experience, New Zealand can explore mechanisms for enforcing regulations on both domestic and offshore online gambling operators, ensuring adherence to regulatory standards and protecting consumers from unauthorized or harmful gambling activities.

International comparisons highlight the diversity of approaches to regulating online gambling and mitigating its mental health impacts across different jurisdictions. By studying successful strategies and adapting them to local contexts, policymakers in New Zealand can develop evidence-based policies that promote responsible gambling behaviors, protect vulnerable populations, and support individuals affected by gambling-related harm. Continued collaboration and knowledge-sharing with international counterparts will be crucial in addressing the evolving challenges posed by online gambling and safeguarding public health and well-being.

Mitigation Strategies and Recommendations
Introduction to Mitigation Strategies

Addressing the mental health impacts of online gambling requires a multifaceted approach that encompasses regulatory measures, public awareness campaigns, and enhanced support services for affected individuals and their families. Drawing on international best practices and local insights, the following strategies and recommendations aim to mitigate the adverse effects of online gambling in New Zealand.

Strengthening Regulatory Frameworks

- **Enhanced Licensing and Regulation:** Implement stricter licensing requirements for online gambling operators, including rigorous checks for financial stability, responsible gambling practices, and compliance with consumer protection standards. Consider adopting a centralized regulatory authority tasked with overseeing all aspects of online gambling to ensure uniformity and effectiveness.
- **Enforcement of Consumer Protections:** Strengthen enforcement mechanisms to monitor and penalize unauthorized and non-compliant online gambling operators, particularly those operating from offshore jurisdictions. Develop partnerships with international regulatory bodies to coordinate efforts and enhance cross-border cooperation in combating illegal online gambling activities.

Public Awareness and Education

- **Educational Campaigns:** Launch comprehensive public awareness campaigns to educate the public, particularly vulnerable populations, about the risks associated with online gambling. Emphasize the importance of responsible gambling behaviors, including setting limits on time and money spent, recognizing warning signs of addiction, and accessing support services.
- **School-Based Programs:** Introduce gambling awareness and prevention programs in schools to educate young people about the potential risks of online gambling and equip them with skills to make informed decisions about gambling activities.

Support Services and Interventions

- **Access to Counseling and Treatment:** Expand access to specialized counseling services and treatment programs for individuals affected by gambling addiction. Ensure these services are confidential, culturally sensitive, and readily accessible through online platforms and community-

based organizations.
- **Self-Exclusion Programs:** Implement and promote voluntary self-exclusion programs that allow individuals to exclude themselves from participating in online gambling activities for a specified period. Provide robust mechanisms for enforcing self-exclusion agreements and blocking access to gambling sites during the exclusion period.

Research and Monitoring
- **Data Collection and Research:** Invest in research initiatives to gather comprehensive data on gambling behaviors, prevalence rates of gambling addiction, and the effectiveness of mitigation strategies. Use evidence-based findings to inform policy development, evaluate intervention programs, and identify emerging trends in online gambling practices.
- **Continuous Monitoring and Evaluation:** Establish mechanisms for ongoing monitoring and evaluation of the impact of regulatory measures and support interventions. Regularly review and update policies based on empirical evidence and stakeholder feedback to ensure they remain responsive to evolving challenges in the online gambling landscape.

Collaborative Approach
- **Multi-Stakeholder Collaboration:** Foster collaboration among government agencies, regulatory bodies, healthcare providers, community organizations, and gambling industry stakeholders. Engage in dialogue and partnership to share expertise, resources, and best practices in addressing online gambling-related harm and promoting responsible gambling practices.
- **International Collaboration:** Strengthen collaboration with international counterparts to exchange knowledge, share regulatory experiences, and develop coordinated approaches to combatting transnational challenges posed by online gambling.

Mitigating the mental health impacts of online gambling in New Zealand requires a coordinated effort involving robust regulatory frameworks, proactive public education campaigns, accessible support services, and evidence-based research initiatives. By implementing these strategies and recommendations, policymakers can foster a safer gambling environment, protect vulnerable individuals, and promote responsible gambling behaviors that prioritize mental health and well-being.

Conclusion
The impact of online gambling on mental health in New Zealand is a multifaceted issue that demands careful consideration and proactive measures to mitigate harm effectively. This study has explored the unique challenges posed by online gambling, comparing its effects with traditional forms of gambling and drawing insights from international experiences in countries such as the United Kingdom, Australia, and the United States.

Summary of Findings
Throughout this article, it has been demonstrated that online gambling presents distinct risks to mental health compared to traditional gambling. The accessibility, anonymity, and continuous nature of online platforms contribute to heightened rates of addiction, anxiety, depression, and social isolation among users. Financial implications are also significant, with online gambling facilitating immediate access to funds through digital payment methods, leading to potential financial hardship and debt accumulation.

Regulatory and Policy Implications
The regulatory framework surrounding online gambling in New Zealand must evolve to address these challenges effectively. Strengthening licensing requirements, enhancing enforcement mechanisms against unauthorized operators, and promoting responsible gambling practices are essential steps toward

safeguarding consumers and mitigating gambling-related harm. Learning from international best practices, particularly in jurisdictions with established regulatory frameworks, can inform the development of evidence-based policies that prioritize consumer protection and public health.

Public Health and Support Strategies

Public awareness campaigns play a crucial role in educating the public about the risks of online gambling and promoting responsible behaviors. Initiatives aimed at early intervention, such as school-based education programs and community outreach efforts, can empower individuals to make informed decisions about gambling activities and seek help when needed. Accessible support services, including counseling, treatment programs, and voluntary self-exclusion options, are vital in providing assistance to individuals and families affected by gambling addiction.

Continued Research and Evaluation

Continuous research and data collection are essential for monitoring trends in gambling behavior, evaluating the effectiveness of interventions, and identifying emerging challenges in the online gambling landscape. By investing in research initiatives and maintaining a proactive approach to data analysis, policymakers can adapt strategies to address evolving issues and optimize resource allocation for maximum impact.

Collaborative Efforts and International Cooperation

Collaboration among government agencies, regulatory bodies, healthcare providers, community organizations, and the gambling industry is critical in implementing comprehensive solutions to mitigate gambling-related harm. International cooperation enhances knowledge-sharing, strengthens regulatory frameworks, and facilitates coordinated efforts to combat cross-border challenges posed by online gambling.

Future Directions

Looking ahead, it is imperative to sustain momentum in addressing the mental health impacts of online gambling through evidence-based policy development, stakeholder engagement, and continuous monitoring of outcomes. By prioritizing the well-being of individuals and communities affected by gambling-related harm, New Zealand can establish a resilient framework that supports responsible gambling practices and safeguards public health for future generations.

In conclusion, addressing the complex interplay between online gambling and mental health requires a proactive and collaborative approach. By integrating regulatory reforms, public health initiatives, and support services, New Zealand can mitigate the adverse effects of online gambling while promoting a safe and responsible gambling environment for all.

References

1. Bellringer, M. E., & Garrett, N. (2021). Risk factors for increased online gambling during covid-19 lockdowns in New Zealand: A longitudinal study. International Journal of Environmental Research and Public Health, 18(24), 12946.
2. Blaszczynski, A., Russell, A., Gainsbury, S., & Hing, N. (2016). Mental health and online, land-based and mixed gamblers. Journal of Gambling Studies, 32, 261-275.
3. Sobrun-Maharaj, A., Rossen, F., & Wong, A. S. K. (2012). The impact of gambling and problem gambling on Asian families and communities in New Zealand. UniServices.
4. Abbott, M. (2017). Gambling and gambling harm in New Zealand: a 28-year case study. International Journal of Mental Health and Addiction, 15, 1221-1241.
5. Rossen, F. V., Clark, T., Denny, S. J., Fleming, T. M., Peiris-John, R., Robinson, E., & Lucassen, M. F. (2016). Unhealthy gambling amongst New Zealand secondary school students: An exploration of risk and protective factors. International Journal of Mental Health and Addiction, 14, 95-110.

6. Drummond, A., Sauer, J. D., Ferguson, C. J., & Hall, L. C. (2020). The relationship between problem gambling, excessive gaming, psychological distress and spending on loot boxes in Aotearoa New Zealand, Australia, and the United States—A cross-national survey. Plos one, 15(3), e0230378.

7. Gainsbury, S. M., Russell, A., Hing, N., Wood, R., & Blaszczynski, A. (2013). The impact of internet gambling on gambling problems: a comparison of moderate-risk and problem Internet and non-Internet gamblers. Psychology of Addictive Behaviors, 27(4), 1092.

8. Browne, M., Bellringer, M., Greer, N., Kolandai-Matchett, K., Langham, E., Rockloff, M., ... & Abbott, M. (2017). Measuring the burden of gambling harm in New Zealand.

9. Rossen, F. V., Lucassen, M. F., Fleming, T. M., Sheridan, J., & Denny, S. J. (2016). Adolescent gambling behaviour, a single latent construct and indicators of risk: Findings from a national survey of New Zealand high school students. Asian journal of gambling issues and public health, 6, 1-12.

10. Abbott, M., Bellringer, M., Garrett, N., & Kolandai-Matchett, K. (2017). Design and methods of the New Zealand national gambling study, a prospective cohort study of gambling and health: 2012–2019. International Journal of Mental Health and Addiction, 15, 1242-1269.

11. Dullur, P., & Hay, P. (2017). Problem internet use and internet gaming disorder: a survey of health literacy among psychiatrists from Australia and New Zealand. Australasian Psychiatry, 25(2), 140-145.

12. Kolandai-Matchett, K., Langham, E., Bellringer, M., & Siitia, P. A. H. (2017). How gambling harms experienced by Pacific people in New Zealand amplify when they are culture-related. Asian journal of gambling issues and public health, 7, 1-20.

13. Chóliz, M., Marcos, M., & Lázaro-Mateo, J. (2021). The risk of online gambling: A study of gambling disorder prevalence rates in Spain. International Journal of Mental Health and Addiction, 19, 404-417.

14. Gainsbury, S. M. (2015). Online gambling addiction: the relationship between internet gambling and disordered gambling. Current addiction reports, 2(2), 185-193.

15. Tu, D., Gray, R. J., & Walton, D. K. (2014). Household experience of gambling-related harm by socio-economic deprivation in New Zealand: increases in inequality between 2008 and 2012. International Gambling Studies, 14(2), 330-344.

16. Palmer du Preez, K., Landon, J., Bellringer, M., Garrett, N., & Abbott, M. (2016). The effects of pop-up harm minimisation messages on electronic gaming machine gambling behaviour in New Zealand. Journal of Gambling Studies, 32, 1115-1126.

17. Van Der Maas, M., Shi, J., Elton-Marshall, T., Hodgins, D. C., Sanchez, S., Lobo, D. S., ... & Turner, N. E. (2019). Internet-based interventions for problem gambling: Scoping review. JMIR Mental Health, 6(1), e65.

18. Rimal, R., Shepherd, R. M., Curley, L. E., & Sundram, F. (2023). Perspectives from gambling expert stakeholders in relation to electronic gaming machines in New Zealand. Health Policy, 136, 104897.

19. Clarke, D., Abbott, M., Tse, S., Townsend, S., Kingi, P., & Manaia, W. (2006). Gender, age, ethnic and occupational associations with pathological gambling in a New Zealand urban sample. New Zealand Journal of Psychology, 35(2).

20. Clarke, D., Abbott, M., Tse, S., Townsend, S., Kingi, P., & Manaia, W. (2006). Gender, age, ethnic and occupational associations with pathological gambling in a New Zealand urban sample. New Zealand Journal of Psychology, 35(2).

21. Rawat, V., Browne, M., Bellringer, M., Greer, N., Kolandai-Matchett, K., Rockloff, M., ... & Abbott, M. (2018). A tale of two countries: Comparing disability weights for gambling problems in New Zealand and Australia. Quality of Life Research, 27, 2361-2371.

22. Rizvi, S. M. H. (2024). Advanced Analytical Techniques for Characterizing Petroleum-Derived Contaminants in the Environment. Valley International Journal Digital Library, 125-134.

23. Holland, K., Tu, D., Gray, R., Hudson, S., & Li, J. (2017). New Zealanders' Knowledge, views and

experience of gambling and gambling harm: Results from the 2014 Health and Lifestyles Survey. Wellington: Health Promotion Agency Research and Evaluation Unit.

24. Smith, M., Chambers, T., Abbott, M., & Signal, L. (2020). High stakes: Children's exposure to gambling and gambling marketing using wearable cameras. International Journal of Mental Health and Addiction, 18, 1025-1047.

25. Hing, N., Smith, M., Rockloff, M., Thorne, H., Russell, A. M., Dowling, N. A., & Breen, H. (2022). How structural changes in online gambling are shaping the contemporary experiences and behaviours of online gamblers: An interview study. BMC Public Health, 22(1), 1620.

26. Rizvi, S. M. H. (2024). Nanotechnology Applications in Enhanced Oil Recovery (EOR). Valley International Journal Digital Library, 135-143.

27. Abbott, M. W. (2020). The changing epidemiology of gambling disorder and gambling-related harm: public health implications. Public health, 184, 41-45.

28. Rizvi, S. M. H. (2024). Development of Sustainable Bio-Based Polymers as Alternatives to Petrochemical Plastics. Valley International Journal Digital Library, 107-124.

29. JOY, L., RUH, L., & Talati, D. An Exploration of Cognitive Assistants and Their Challenges.

30. GEORGE CHRISTOPHER, D. T. AI-Based Personalized Healthcare: Tailoring Treatment and Transforming Patient.

31. Talati, D. V. AI Integration with Electronic Health Records (EHR): A Synergistic Approach to Healthcare Informatics December, 2023.

32. Nagesh, C., Chaganti, K. R., Chaganti, S., Khaleelullah, S., Naresh, P., & Hussan, M. (2023). Leveraging Machine Learning based Ensemble Time Series Prediction Model for Rainfall Using SVM, KNN and Advanced ARIMA+ E-GARCH. International Journal on Recent and Innovation Trends in Computing and Communication, 11(7s), 353-358.

33. Talati, D. (2023). Artificial Intelligence (Ai) In Mental Health Diagnosis and Treatment. Journal of Knowledge Learning and Science Technology ISSN: 2959-6386 (online), 2(3), 251-253.

34. Chaganti, K. R., Ramula, U. S., Sathyanarayana, C., Changala, R., Kirankumar, N., & Gupta, K. G. (2023, November). UI/UX Design for Online Learning Approach by Predictive Student Experience. In 2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA) (pp. 794-799). IEEE.

35. Talati, D. (2023). Telemedicine and AI in Remote Patient Monitoring. Journal of Knowledge Learning and Science Technology ISSN: 2959-6386 (online), 2(3), 254-255.

36. Chaganti, K. R., & Chaganti, S. Deep Learning Based NLP and LSTM Models for Sentiment Classification of Consumer Tweets.

37. Tatineni, S. (2018). Federated Learning for Privacy-Preserving Data Analysis: Applications and Challenges. International Journal of Computer Engineering and Technology, 9(6).

38. Potenza, M. N., Steinberg, M. A., McLaughlin, S. D., Wu, R., Rounsaville, B. J., & O'Malley, S. S. (2001). Gender-related differences in the characteristics of problem gamblers using a gambling helpline. American Journal of Psychiatry, 158(9), 1500-1505.

39. Tatineni, S. (2019). Beyond Accuracy: Understanding Model Performance on SQuAD 2.0 Challenges. International Journal of Advanced Research in Engineering and Technology (IJARET), 10(1), 566-581.

40. Browne, M., Greer, N., Rawat, V., & Rockloff, M. (2017). A population-level metric for gambling-related harm. International Gambling Studies, 17(2), 163-175.

41. Tatineni, S. Challenges and Strategies for Optimizing Multi-Cloud Deployments in DevOps.

42. Williams, R. J., & Wood, R. T. (2007). Internet gambling: A comprehensive review and synthesis of the literature.

43. Tatineni, S. (2023). Cloud-Based Reliability Engineering: Strategies for Ensuring High Availability and Performance. International Journal of Science and Research (IJSR), 12(11), 1005-1012.

44. Sellman, J. D., Adamson, S., Robertson, P., Sullivan, S., & Coverdale, J. (2002). Gambling in mild–moderate alcohol-dependent outpatients. Substance use & misuse, 37(2), 199-213.

45. Tatineni, S., & Allam, K. (2024). DevOps Security: Integrating Security into the DevOps Workflow. EPH-International Journal of Science And Engineering, 10(1), 13-21.

46. Hing, N., Russell, A., Tolchard, B., & Nuske, E. (2015). Are there distinctive outcomes from self-exclusion? An exploratory study comparing gamblers who have self-excluded, received counselling, or both. International Journal of Mental Health and Addiction, 13, 481-496.

47. Tatineni, S. (2021). Exploring the Challenges and Prospects in Data Science and Information Professions. International Journal of Management (IJM), 12(2), 1009-1014.

48. Hing, N., Russell, A. M., Gainsbury, S. M., & Nuske, E. (2016). The public stigma of problem gambling: Its nature and relative intensity compared to other health conditions. Journal of Gambling Studies, 32, 847-864.

49. Tatineni, S. (2023). Addressing Privacy and Security Concerns Associated with the Increased Use of IoT Technologies in the US Healthcare Industry. Technix International Journal for Engineering Research (TIJER), 10(10), 523-534.

50. King, D. L., Delfabbro, P. H., Doh, Y. Y., Wu, A. M., Kuss, D. J., Pallesen, S., ... & Sakuma, H. (2018). Policy and prevention approaches for disordered and hazardous gaming and Internet use: An international perspective. Prevention Science, 19(2), 233-249.

51. Tatineni, S. (2023). Embedding AI Logic and Cyber Security into Field and Cloud Edge Gateways. International Journal of Science and Research (IJSR), 12(10), 1221-1227.

52. Echeburúa, E., Báez, C., & Fernández-Montalvo, J. (1996). Comparative effectiveness of three therapeutic modalities in the psychological treatment of pathological gambling: Long-term outcome. Behavioural and cognitive psychotherapy, 24(1), 51-72.

53. Tatineni, S. (2023). Security and Compliance in Parallel Computing Cloud Services. International Journal of Science and Research (IJSR), 12(10), 972-1977.

54. Hardoon, K. K., & Derevensky, J. L. (2002). Child and adolescent gambling behavior: Current knowledge. Clinical Child Psychology and Psychiatry, 7(2), 263-281.

55. Tatineni, S. (2019). Ethical Considerations in AI and Data Science: Bias, Fairness, and Accountability. International Journal of Information Technology and Management Information Systems (IJITMIS), 10(1), 11-21.