Critical Gambling Studies



The Contextual Nature of Stigma and Gambling: What Difference Does It Make to Help-Seeking?

Catherine Hitch 🕩 et Alice E. Hoon 🕩

Volume 5, numéro 1, 2024

Critical Directions in Early-Career Gambling Studies

URI: https://id.erudit.org/iderudit/1114243ar

DOI: https://doi.org/10.29173/cgs204

Aller au sommaire du numéro

Éditeur(s)

University of Alberta Library

ISSN

2563-190X (numérique)

Découvrir la revue

Citer ce document

Hitch, C. & Hoon, A. (2024). The Contextual Nature of Stigma and Gambling: What Difference Does It Make to Help-Seeking? *Critical Gambling Studies*, 5(1), 90–96. https://doi.org/10.29173/cgs204

© Catherine Hitch et Alice E. Hoon, 2024



Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

https://apropos.erudit.org/fr/usagers/politique-dutilisation/



CRITICAL gambling studies



ISSN: 2563-190X. Available Open Access at https://criticalgamblingstudies.com

COMMENTARY

The Contextual Nature of Stigma and Gambling: What Difference Does It Make to Help-Seeking?

Catherine Hitch, Alice E. Hoon

APA Citation: Hitch, C., & Hoon, A. (2024). The contextual nature of stigma and gambling: What difference does it make to help-seeking? *Critical Gambling Studies, 5*(1), 90–96. https://doi.org/10.29173/cgs204

Article History: Received September 15, 2023 Accepted August 15, 2024 Published October 5, 2024

 $\ensuremath{\mathbb{C}}$ 2024 The authors

This work is licensed under a <u>Creative Commons Attribution-Non-Commercial-No-Derivatives 4.0</u> <u>International License</u>. Authors retain copyright of their work, with first publication rights granted to *Critical Gambling Studies*.



Critical Gambling Studies

Vol. 5, No. 1



The Contextual Nature of Stigma and Gambling: What Difference Does It Make to Help-Seeking?

Catherine Hitch 10, a1 Alice E. Hoon 10 b

^a Arden University

Keywords: Gambling stigma, culture, help-seeking

Article History: Received September 15, 2023; Accepted August 15, 2024; Published October 5, 2024 Available Open Access from https://doi.org/10.29173/cgs204

Gambling disorder is a serious mental health condition that can have devastating consequences on a person's life (American Psychiatric Association, 2013). Stigma is typically conceptualized as thoughts and feelings that are linked to disgrace, shame, or feeling less socially acceptable (Goffman, 1963). Stigma can present in a range of forms, including public stigma (broad societal shared stigma beliefs), perceived stigma (beliefs that other people stigmatizing opinions), and self-stigma (subjective, internalized negative beliefs about the self, based on what others think) (Keane, 2019). The stigma associated with experiencing harmful gambling is well documented in the literature, and it might carry more stigma than other mental health conditions (Quigley et al., 2020). Dąbrowska and Wieczorek (2020) reported that people with a diagnosed gambling disorder had a negative self-perception, particularly in relation to their trustworthiness and feelings of shame, as well as a fear of rejection by loved ones. Additionally, Keane (2019) described the public stigma associated with problem gambling as being particularly "intense."

The discourse around gambling harm can further exacerbate stigma. The term *problem gambler* has been extensively used within both academic literature and the media. This term puts

the onus on the individual as the "problem" (Keane, 2019). Blaming the individual fails to account for the environmental conditions and risk factors that make developing a gambling addiction more likely (Rimal et al., 2023), such as the availability of gambling activities (e.g., Welte et al., 2004) or advertising (McGrane et al., 2023). The narrative of responsible gambling can further stigmatize individuals, as it implies that people with addiction-type difficulties are irresponsible and have no self-control. The responsible gambling mantra fails to account for the role of the industry in the development and maintenance of gambling harm (Livingstone & Rintoul, 2020), which in turn can influence the public view of gambling addiction. Hing et al. (2016) reported that people with gambling disorder and addiction felt stigmatized by the public's perception; that they were perceived to be untrustworthy and lacking intelligence. It is possible to see how discourses such as these create and maintain public stigma and self-stigma.

Complex Nuances of Cultural Aspects of Stigma

How gambling stigma manifests is complex. Fraser et al. (2017) suggested that stigma originates from a range of circumstances and is often used as a political tool for behaviour

¹ Corresponding author. Email: catherine_hitch@yahoo.co.uk



© 2024 The authors

^b Swansea University

control. If stigma is created and maintained socially, then it follows that stigma needs to be understood as being culturally specific, which makes it somewhat nuanced. Some such cultural nuances relating to stigma are perhaps misunderstood or not yet known. The authors wish to draw upon military veteran—specific evidence to illustrate this critical point as there is extant literature relating to military veterans and stigma.

Stigma relating to veteran gambling is not as extensively researched compared to the stigma associated with other difficulties. However, it is undisputed that stigma is frequently associated with common mental health difficulties, with PTSD being particularly stigmatized for armed forces populations. For example, Rhidenour et al. (2019) explained that veterans are often given a dichotomous label of hero or broken; broken being associated with PTSD. It is thought that, for some veterans, having a mental health difficulty, such as PTSD, carries more stigma than having an addiction difficulty. For example, excessive alcohol use was generally normalized and thus carried less stigma, if any, compared to other mental health difficulties (Jones & Fear, 2011). This might also be true of gambling behaviour, given that gambling is normalized in certain contexts for armed forces populations. The U.K. Ministry of Defence historically provided alcohol for coping with work-related stress and to aid bonding (Jones & Fear, 2011), and the U.S. Department of Defence provided soldiers with gambling slot machines for "morale, welfare, and recreation" (Means, 2022). Perhaps, rather than gambling being stigmatized for U.S. veterans, it is encouraged and enabled for stress management and recreation. Furthermore, gambling might be financially lucrative for the Department of Defence, therefore it would not be in their interest to foster narratives that connect stigma to gambling in a U.S. military context (Means, 2022).

However, gambling stigma might affect veterans in other ways. If a U.S. veteran thinks their gambling has become excessive and they needed help, they face then a dilemma with a different stigma attached. If a veteran wishes to seek support, they must go through their internal chain of command, meaning their military record would likely be "marked." Workplace stigma associated with help-seeking often acts as a barrier, with fears of repercussions associated with one's career (Coleman et al., 2017). Soldiers do not want their records marked with anything that could identify them as unfit. This workplace stigma seems more specific to the U.S. veteran context than the U.K.

One consistent finding across nationalities is that military service is a predictor for developing serious gambling difficulties (Harris et al., 2021; Roberts et al., 2016; Sharman et al., 2019). This might be due to elevated levels of trauma exposure, while simultaneously being exposed to stigmatized beliefs over pride and selfmanagement (Clary et al., 2023). As the military is predominantly male, it is noteworthy that the majority of military research represents the male population. If female military veterans experience gambling-related stigma, perhaps experience it differently? Clement et al. (2015) commented that female veterans were less likely to see stigma as a help-seeking barrier, perhaps because they were less bound by stigmatized attitudes of being mentally strong.

The Complexities Surrounding Stigma as a Help-Seeking Barrier

Whilst the stigma around experiencing gambling difficulties is acknowledged, the effect that stigma has on help-seeking in the general population is unclear. Gambling stigma can serve as a barrier to help-seeking, yet many do still reach out. In 2022, GamCare reported that the U.K. National Gambling Helpline received approximately 71,000 calls in 12 months, with over 38,000 treatment sessions being delivered to just under 10,000 people. However, approximately 203,000 people need gambling support in the United Kingdom (NHS England Digital, 2023), suggesting that less than 5% are

accessing treatment. This might partly be the result of stigmatizing beliefs. Nevertheless, it is surmisable that many who sought help did so while holding stigmatized beliefs. Hence, we need a better understanding of the nuances of how stigma can hinder or facilitate help-seeking in different individuals.

How stigma impacts help-seeking is complex. Horch and Hodgins (2015) report that self-stigma can actually increase treatment seeking, though it has a negative impact on coping due to increased shame. Whilst the causes of increased helpseeking were unclear, Horch & Hodgins (2015) proposed that it could be due to feelings of selfblame. However, in the same way that gambling stigma is likely context specific, the effects that stigma have on help-seeking might differ by context. Baxter et al. (2016) found that stigma was experienced differently between men and women, which in turn affected barriers to treatment seeking. Men were more likely to feel stigma around discussing the emotional aspects of their addiction difficulties, which was consequently a barrier to help-seeking. Women, however, felt shame for admitting they were enticed by the glamour of the casino and for holding irrational beliefs about their chance of winning. For women, the stigmatizing beliefs were less likely to act as a barrier to help-seeking.

Shame and secrecy are reported barriers to help-seeking (Gainsbury et al., 2014), with secrecy reducing the likelihood of using self-exclusion tools (Hing et al., 2016). Hing et al. (2016) commented that shame prevented self-exclusion from land-based gambling venues due to a fear of being recognized or judged. This effect was not seen with online gambling, in which self-exclusion felt more anonymous. With regards to accessing counselling, Hing et al. (2016) found that stigma affected people differently. Some avoided counselling because they thought they would find the experience stigmatizing, whereas others attended counselling in spite of stigma because the need for help was greater. The evidence surrounding secrecy and stigma could account for why some accessed the U.K. National Helpline (GamCare, 2022)—the use of telephone support enabled anonymity and reduced the sense of being negatively judged.

Referring back to the example of military populations, the paucity of existing evidence does suggest that a proportion of veterans do engage help-seeking for gambling difficulties (Champion et al., 2022; Shirk et al., 2022). These findings are interesting because, as suggested above, this population has an increased likelihood of help-seeking being affected by stigma. Harris and colleagues (2021) studied the economic cost of gambling and found that veterans cost the U.K. economy more than non-veterans due to their public healthcare and social service use. Harris et al. (2021) reported that a higher percentage of veterans than non-veterans accessed gamblingrelated support services and other psychological support, suggesting that, in spite of stigma, they did help-seek. The nature of their help-seeking perhaps indicates that stigma was not a barrier, or that gambling stigma does not exist in all helpseeking contexts. For example, if a veteran visited their GP for something unrelated to gambling (e.g., insomnia or PTSD), they might have received support that provided relief for an issue that was directly or indirectly contributing to their gambling. Global veteran and military literature relating to stigma as a barrier for mental health help-seeking generally reports a common theme: stigma does exist, but it is frequently not an actual barrier for this population (Clement et al., 2015; Rafferty et al., 2017; Sharp et al., 2015). Clement and colleagues (2015) found that female veterans were less likely to see stigma as a barrier than males, contributing to the argument that whether stigma acts as a barrier is nuanced.

Intersectionality in Gambling Stigma

The words *gambling* and *stigma* are often linked, and this relationship is not disputed. However, it is perhaps a bit reductionist to simply state that gambling stigma always impedes help-seeking. Discussing the literature relating to 1)

military veterans and 2) gender differences in help-seeking for gambling addiction, general mental health, and stigma, highlights an intersection between these points. Essentially, where or how stigma affects help-seeking depends on the population and context. Additionally, how individuals feel stigmatized also differs by population and context, which in turn impacts help-seeking. For these reasons, it is necessary to understand the contextual nature of stigma, and how stigma can influence help-seeking.

It needs to be reiterated that stigma is not always a barrier even when it is present, which might be more a reflection of the complex needs of the person experiencing difficulties. This latter point indicates a further intersection: the role of a person's individual needs in the context of their wider life and how that interacts with contextual stigma. The points surrounding intersectionality relationship highlight that the between contextual stigma and the needs of those experiencing gambling difficulties warrant further exploration, to better inform evidence-based treatment interventions. There can be a temptation to tease these relationships apart, yet, critically, if they are intertwined, they ought to be investigated in that manner.

References

- American Psychiatric Association (APA) (Eds.). (2013). Diagnostic and statistical manual of mental disorders (5th ed.). APA.
 - https://doi.org/10.1176/appi.books.9780890425596
- Baxter, A., Salmon, C., Dufresne, K., Carasco-Lee, A., & Matheson, F. I. (2016). Gender differences in felt stigma and barriers to help-seeking for problem gambling. Addictive Behaviors Reports, 3, 1–8. https://doi.org/10.1016/j.abrep.2015.10.001
- Champion, H., Pritchard, A., Dighton, G., & Dymond, S. (2022). Gambling problems and help-seeking in serving United Kingdom military personnel: A qualitative study. *Frontiers in Psychiatry, 13*, 1003457. https://doi.org/10.3389/fpsyt.2022.1003457

- Clary, K. L., Pena, S., & Smith, D. C. (2023). Masculinity and stigma among emerging adult military members and veterans: Implications for encouraging help-seeking. *Current Psychology, 42*, 4422–4438. https://doi.org/10.1007/s12144-021-01768-7
- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 45(1), 11–27. https://doi.org/10.1017/S0033291714000129
- Coleman, S. J., Stevelink, S. A. M., Hatch, S. L., Denny, J. A., & Greenberg, N. (2017). Stigma-related barriers and facilitators to help seeking for mental health issues in the armed forces: A systematic review and thematic synthesis of qualitative literature. *Psychological Medicine*, *47*(11), 1880–1892. https://doi.org/10.1017/S0033291717000356
- Dąbrowska, K., & Wieczorek, Ł. (2020). Perceived social stigmatisation of gambling disorders and coping with stigma. Nordic Studies on Alcohol and Drugs, 37(3), 279– 297. https://doi.org/10.1177/1455072520902342
- Fraser, S., Pienaar, K., Dilkes-Frayne, E., Moore, D., Kokanovic, R., Treloar, C., & Dunlop, A. (2017). Addiction stigma and the biopolitics of liberal modernity: A qualitative analysis. *International Journal of Drug Policy, 44*, 192–201. https://doi.org/10.1016/j.drugpo.2017.02.005
- Gainsbury, S., Hing, N., & Suhonen, N. (2014). Professional help-seeking for gambling problems: Awareness, barriers and motivators for treatment. *Journal of Gambling Studies, 30*(2), 503–519. https://doi.org/10.1007/s10899-013-9373-X
- GamCare. (2022, October 26). *Trustees' annual report and financial statements*. https://d1ygf46rsya1tb.cloudfront.net/prod/uploads/2022/11/Gamcare-Annual-Report-V12-FINAL-updated.pdf
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Penguin.
- Harris, S., Pockett, R. D., Dighton, G., Wood, K., Armour, C.,
 Fossey, M., Hogan, L., Kitchiner, N., Larcombe, J., Rogers,
 R. D., & Dymond, S. (2021). Social and economic costs of gambling problems and related harm among UK military veterans. *BMJ Military Health*, *169*, 413–418.
 https://doi.org/10.1136/bmjmilitary-2021-001892
- Hing, N., Nuske, E., Gainsbury, S. M., Russell, A. M. T., & Breen, H. (2016). How does the stigma of problem gambling influence help-seeking, treatment and recovery? A view from the counselling sector. *International Gambling Studies*, *16*(2), 263–280. https://doi.org/10.1080/14459795.2016.1171888

- Horch, J. D., & Hodgins, D. C. (2015). Self-stigma coping and treatment-seeking in problem gambling. *International Gambling Studies*, *15*(3), 470–488. https://doi.org/10.1080/14459795.2015.1078392
- Jones, E., & Fear, N. T. (2011). Alcohol use and misuse within the military: A review. *International Review of Psychiatry*, 23(2), 166–172.
 - https://doi.org/10.3109/09540261.2010.550868
- Keane, H. (2019). Rethinking stigma and gambling. *Critical Gambling Studies Blog*. https://doi.org/10.29173/cgs13
- Livingstone, C., & Rintoul, A. (2020). Moving on from responsible gambling: A new discourse is needed to prevent and minimise harm from gambling. *Public Health*, *184*, 107–112. https://doi.org/10.1016/j.puhe.2020.03.018
- McGrane, E., Wardle, H., Clowes, M., Blank, L., Pryce, R., Field, M., Sharpe, C., & Goyder, E. (2023). What is the evidence that advertising policies could have an impact on gambling-related harms? A systematic umbrella review of the literature. *Public Health*, 215, 124–130. https://doi.org/10.1016/j.puhe.2022.11.019
- Means, G. (2022, July 31). U.S. military-run slot machines earn \$100 million a year from service members overseas. NPR. https://www.npr.org/2022/07/31/1110882487/dod-slot-machines-overseas-bases
- NHS England Digital. (2023, May 16). Gambling behaviour. In Health survey for England, 2021 part 2. https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2021-part-2/gambling
- Quigley, L., Prentice, J., Warren, J. T., Quilty, L. C., Dobson, K. S., & Hodgins, D. C. (2020). What's in a name? Evaluating the public stigma of gambling disorder. *Journal of Gambling Studies*, *36*(4), 1205–1228. https://doi.org/10.1007/s10899-019-09924-2
- Rafferty, L., Stevelink, S., Greenberg, N., & Wessely, S. (2019). Stigma and barriers to care in service leavers with mental health problems. King's Centre for Military Health Research, King's College London. https://www.fim-trust.org/wp-content/uploads/stigma-barriers-care-service-leavers-mental-health-problems.pdf
- Rhidenour, K. B., Barrett, A. K., & Blackburn, K. G. (2019). Heroes or health victims?: Exploring how the elite media frames veterans on Veterans Day. *Health Communication, 34*(4), 371–382. Oak Ridge Institute for Science and Education. https://doi.org/10.1080/10410236.2017.1405481
- 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. https://doi.org/10.1016/j.healthpol.2023.104897

- Roberts, A., Coid, J., King, R., Murphy, R., Turner, J., Bowden-Jones, H., Palmer Du Preez, K., & Landon, J. (2016). Gambling and violence in a nationally representative sample of UK men. *Addiction*, *111*(12), 2196–2207. https://doi.org/10.1111/add.13522
- Sharman, S., Butler, K., & Roberts, A. (2019). Psychosocial risk factors in disordered gambling: A descriptive systematic overview of vulnerable populations. *Addictive Behaviors*, 99, 106071. https://doi.org/10.1016/j.addbeh.2019.106071
- Sharp, M.-L., Fear, N. T., Rona, R. J., Wessely, S., Greenberg, N., Jones, N., & Goodwin, L. (2015). Stigma as a barrier to seeking health care among military personnel with mental health problems. *Epidemiologic Reviews, 37*(1), 144–162. https://doi.org/10.1093/epirev/mxu012
- Shirk, S. D., Muquit, L. S., Deckro, J., Sweeney, P. J., & Kraus, S. W. (2022). Mindfulness-based relapse prevention for the treatment of gambling disorder among U.S. military veterans: Case series and feasibility. *Clinical Case Studies*, 21(1), 3–17. https://doi.org/10.1177/15346501211020122
- Welte, J. W., Wieczorek, W. F., Barnes, G. M., Tidwell, M.-C., & Hoffman, J. H. (2004). The relationship of ecological and geographic factors to gambling behavior and pathology. *Journal of Gambling Studies*, 20(4), 405–423. https://doi.org/10.1007/s10899-004-4582-y

Funding and Conflict of Interest Statements Catherine Hitch

Career-Long Funding Disclosure

- 2023–2024: Office of Veteran Affairs (OVA), Central Cabinet Government Office, United Kingdom, research grant, £14,500.
- 2023: Research and Network for Gambling Early-career Scholars (RANGES), ECR travel grant, \$1,000.
- 2023: British Psychological Society (BPS), ECR international travel grant, £500.
- 2023: International Centre for Responsible Gambling (ICRG), ECR international travel grant, \$1,500.
- 2023: Academic Forum for the Study of Gambling, Gambling Research Exchange Ontario (GREO), ECR international travel grant, \$500.
- 2022: Research Innovation Wales Fund (RIWF), Welsh government, research grant, £13.000.
- 2022: Society of the Study of Addiction, ECR travel grant, £300.

 2019–2022: Royal British Legion (RBL), PhD research grant, £70,000.

Conflict of Interest Statement

I have never sought, nor received, gambling industry funding for the purposes of research, providing evidence or consultancy to any stakeholders including government agencies, or to create safer gambling information / campaigns and gambling-related interventions (e.g., safer gambling, reduced gambling, responsible gambling).

The RIWF grant was used to conduct a systematic review into the use of a specific therapy to support veterans with PTSD or gambling difficulties. The grant was received by the RIWF via the Higher Education Funding Council for Wales.

The OVA grant was used to fund an app-based intervention to support U.K. military veterans who were experiencing co-occurring PTSD and gambling difficulties. The OVA grant was funded by the Armed Forces Covenant Fund Trust (AFCFT), which is sponsored by the U.K. Ministry of Defence (MOD). A legal clause was added to the funding contract that stated the OVA, AFCFT, and MOD would not be involved, directly or indirectly, with the intervention.

The doctoral project funded by the RBL was unrelated to gambling; it explored help-seeking behaviours of veterans living in Northern Ireland. The RBL is sponsored by public donations.

Although the ICRG is associated with the gambling industry, the grant I received was for conference travel only. The ICRG provided partial funds for me to present at the 2023 International Conference on Behavioral Addictions, hosted in Incheon, South Korea.

Alice Hoon

Career-Long Funding Disclosure

 2024: Academic Forum for the Study of Gambling (AFSG) honorarium for reviewing grant applications, £300.

- 2022: AFSG honorarium for reviewing grant applications, £500.
- 2021: AFSG honorarium for reviewing grant applications, £500.
- 2020–2022: GambleAware funding for CONGAM: A scoping and feasibility study of adding contingency management to psychosocial interventions for disordered gambling, £110,589.
- 2020–2021: Seed grant from the International Center for Responsible Gambling for Identifying and modelling the schedules of reinforcement in live-odds betting, \$29,961.
- 2010: Wales Institute of Cognitive Neuroscience Program Grant Scheme for Neural correlates of problem gambling: A combined MEG and fMRI investigation, £37,342.50.
- 2008–2010: University of Wales PhD Studentship for Emergent slot machine gambling: A relational frame theory approach, £39,000.

Conflict of Interest Statement

GambleAware and the International Center for Responsible Gambling (ICRG) both receive money from the gambling industry through regulatory settlements. In the past, I have applied for and been awarded grants from both of these organizations, however neither organization nor the gambling industry had any part in the inception, design, conducting, analysis, or findings of the research, and the research therefore was not influenced or informed by the gambling industry. Both of these grants were administered independently of the gambling industry. I have never received any money personally as part of these grants. The research funded by ICRG involved using quantile regression models to analyze patterns of play in sports bettors using an existing publicly available data set. The research funded by GambleAware explored the use of Contingency Management as a treatment for gambling disorder. Neither

research produced any product or information which is of benefit to the gambling industry.

The present commentary has in no way been influenced by anyone from the gambling industry.

The Wales Institute for Cognitive Neuroscience and Swansea University have no links to the gambling industry.

Additional disclosures

I am a member of the <u>Academic Forum for the Study of Gambling (AFSG)</u>, which distributes research funding derived from regulatory settlements in the United Kingdom. The gambling industry has no role in funding calls or decisions. I have not sought, nor received, research funding from AFSG. I have received honorarium payments for reviewing grant applications from AFSG.

I am a Review Editor for the Addictive Behaviors section of *Frontiers in Psychology*. I do not receive any payment for this work and there are no links with the gambling industry.

Author Details

Dr. Catherine Hitch's research mainly focuses on military veteran help-seeking behaviour for a range of mental health difficulties. Her work includes examining how they self-manage their mental health experiences, which often includes the use of addictive behaviours (such as alcohol and gambling) as a coping strategy. Catherine has taken a particular interest in hidden and hard-to-reach veteran populations who tend to experience poorer mental health and worse addiction outcomes as a result of help-seeking barriers. Such barriers often present as self-perceived stigma or accessibility.

Dr. Alice Hoon is an Associate Professor in Medical Psychology at Swansea University Medical School. Her research interests include gambling behaviour, structural characteristics of slot machines, gambling treatment, and third wave therapies. Alice's teaching interests include addiction, mental health, and medical psychology. She has been conducting gambling

research for over 18 years and is a co-founder and co-director of the Grambling Research, Education and Treatment (GREAT) Network Wales.

ORCID

Catherine Hitch 0000-0003-4685-8910
Alice E. Hoon 0000-0002-9921-6156