Intervening in Indigenous Gambling: A Systematic Review of the Literature

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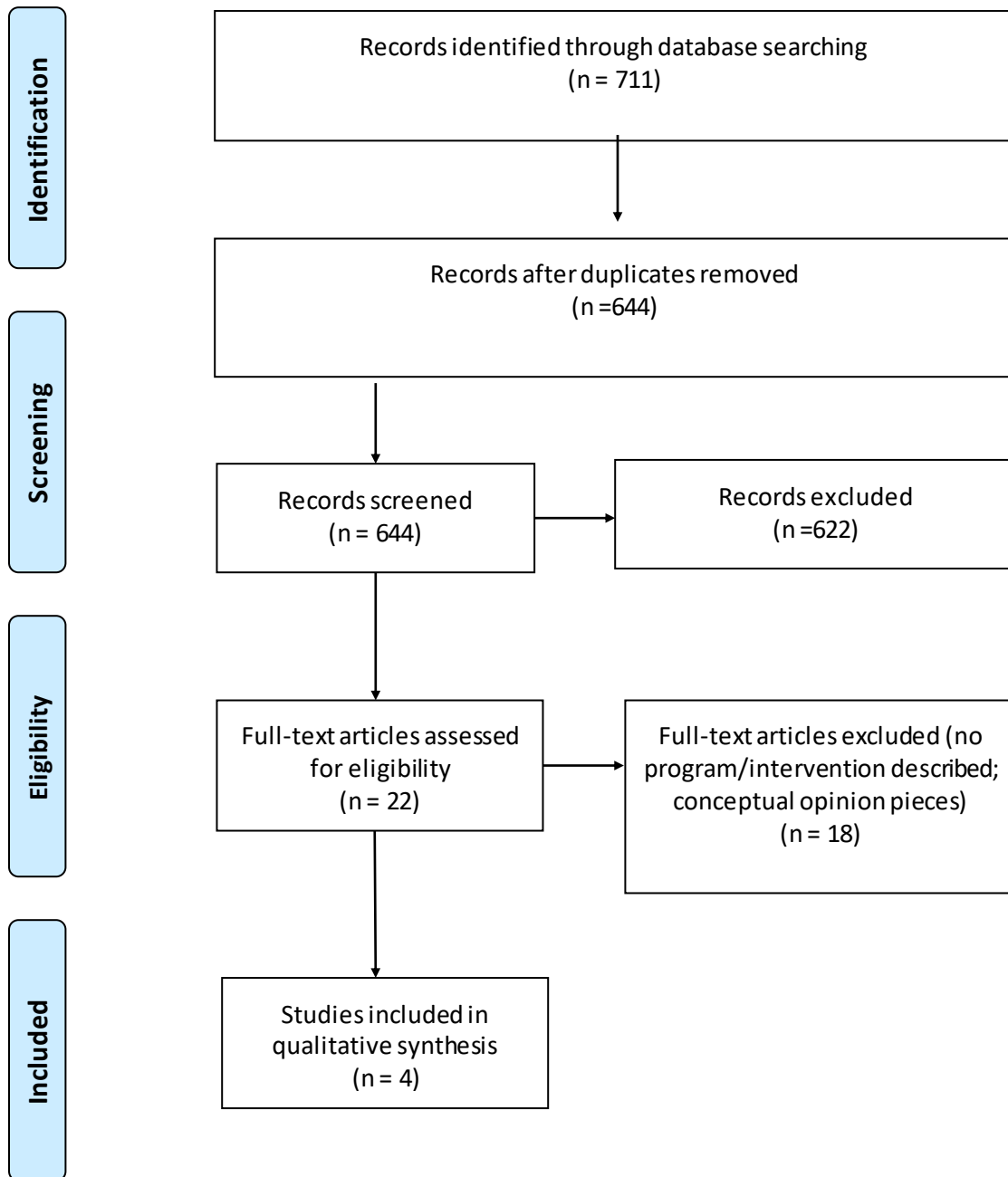
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Abstract

This study aimed to systematically search and review the literature relating to interventions designed for Indigenous populations that seek to prevent or address gambling harm, to support the design of new programs. Peer-reviewed articles and grey literature that described programs of this nature and/or which reported outcomes for Indigenous participants were included in the review.

Figure 1: The Search Strategy

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Abstract

Internationally, Indigenous people have higher rates of problem gambling than other population groups yet only a small proportion of Indigenous people experiencing gambling related harm seek professional help. This study aimed to systematically search and review the literature relating to interventions designed for Indigenous populations that seek to prevent or address gambling harm, to support the design of new programs. Peer-reviewed articles and grey literature that described programs of this nature and/or which reported outcomes for Indigenous participants were included in the review. Included studies were published between January 2000 and May 2019 and available in English. Only four articles were identified for inclusion; two described programs in Australia and two in New Zealand. Only one article provided outcome data, which was inconclusive, and one described three separate interventions. Three of the four described involved community-led approaches informed by cultural and emancipatory principles. There is currently insufficient evidence to guide interventions aiming to prevent and address gambling harm for Indigenous peoples. This review identified an urgent need for new intervention research in this area.

Keywords

Aboriginal, Indigenous, First Nation, Gambling, Gaming, Intervention

Background

In Australia and internationally gambling is part of the social and cultural fabric of many Indigenous communities (Maltzahn et al. 2018). For example, card games, although reducing in popularity, remain an acceptable form of social recreation in some areas (Hing, Breen, Gordon & Russell 2014a). However, with the introduction of commercial gambling, such as electronic gaming machines (EGM), casinos and off-course wagering, Indigenous gambling involvement has increased significantly (Breen, Hing & Gordon, 2010; McMillen & Donnelly, 2008). Gambling has moved from community settings to organised venues in cities and towns, and these changes to the gambling environment have resulted in a range of far-reaching social, emotional and economic consequences for Indigenous people (McMillen & Donnelly, 2008).

It is not the case that all gambling produces problems. Gambling can provide amusement, an opportunity to socialise, monetary gain, and an escape from day to day problems (Hing,

Breen, Gordon & Russell, 2015; Hing & Breen 2014). But there are risks associated with gambling (McMillen & Donnelly 2008); the most commonly reported is financial hardship (Hing & Breen 2014). Terms such as pathological, problem, at-risk, disordered and compulsive gambling are used to differentiate between controlled gambling and behaviour that may cause significant problems to the gambler, their family and the community (Lubman et al., 2015; Bainbridge et al., 2018).

Internationally, Indigenous populations have higher rates of problem gambling than other population groups (Bertossa & Harvey 2014; Larsen, Curtis & Bjerregaard, 2013; Breen et al. 2010; Young, Barnes, Stevens, Paterson & Morris, 2007; Young, Stevens & Morris, 2008). The higher the participation in and exposure to gambling, and the earlier the onset of involvement, the greater the risk (Hing, Breen, Gordon & Russell, 2014b). Indigenous peoples' higher level of risk of harm from gambling has been associated with a range of factors including historical experiences of colonisation, dispossession and trauma, relatively lower socioeconomic status, disadvantageous social conditions, and higher rates of addictions and mental health issues related to grief, stress, and racial discrimination (Abbott et al. 2016; Alegría et al. 2009; Stevens and Young 2010, 2009; Mason 2017; Currie et al. 2013; Delfabbro and King 2012). Other risk factors may include cultural beliefs, historical gambling norms, and values of reciprocal obligations (Mason 2017).

Problem gambling is recognised as one of the indicators of loss of social and emotional wellbeing (Bainbridge et al., 2018) and can be implicated in serious adverse consequences, including neglect of children, family arguments, breakdown and violence, criminal activity and incarceration, poor physical and mental health and suicide (Aboriginal Health and Medical Research Council of New South Wales (AHMRCNSW), 2008). Gambling can lead to poverty at community as well as personal levels. Whilst in previous eras a more collectivist approach to gambling meant funds were redistributed within the community, commercial gambling today is draining funds from communities and the money lost is unrecoverable (AHMRCNSW 2008). Consequently, problem gambling has been found to diminish community cohesiveness (Phillips 2003), and lead to social isolation (Hing et al. 2015).

Mainstream gambling interventions take a range of forms from psychological interventions, where there is evidence that approaches such as cognitive behaviour therapy can help, at least in the short term (Cowlishaw, Merkouris, Dowling, Anderson, Jackson & Thomas, 2012), to industry regulations which shift the focus from the individual to the nature of gambling products and the systems that enable them (Livingstone, 2018). Other interventions involve

'responsible gambling initiatives', usually initiated by government and industry operators to assist gamblers maintain their expenditure within affordable limits. These can include self-exclusion from gambling venues, player pre-commitment to time or expenditure, warning messages; gambling education and information; and other prevention efforts but the evidence base for such programs is limited (Ladouceura, Shafferb, Blaszczynskic & Shafferd, 2017). Other self-help strategies, characterised by being self rather than professionally directed, include self-education, self-assessment and monitoring, distraction activities, cognitive strategies, stimulus control, financial management, and social strategies (Lubman et al., 2015).

Despite the potential consequences of gambling and the range of service options, only a small proportion of Indigenous problem gamblers seek professional help. This may be due to a lack of services, knowledge of these services or culturally appropriate staff (Holdsworth et al. 2013). Feelings of shame and concerns about confidentiality may also play a part (AHMRCNSW 2008). For example, a gambling problem of a family member may remain private at first, but once the word is out, the family may experience a loss of respect among community members.

The staff of the [Aboriginal community- controlled health organisation; removed for review] had long been concerned about the impact of gambling in their community and had implemented a gambling help program within their service. This service was designed on a psychological model whereby a qualified gambling help counsellor was employed to see clients experiencing gambling harm. The service managers were concerned at the low rates of service usage. They were aware that Indigenous approaches to other areas of social need, including mental health and addictions, differed from mainstream treatment strategies and sought to take a more empowering and culturally informed approach (Bainbridge et al. 2018). They commissioned the authors of this paper to investigate the literature available on gambling interventions in Indigenous contexts to guide their thinking. The aim of this study was therefore to systematically search the literature for studies of programs that seek to prevent or address gambling harm that are specifically designed for Indigenous populations and, to describe the nature and outcomes of these programs.

Method

A protocol for the review was developed to reach a consensus on the purpose of the review and methods for the search, screening, data extraction and analysis. The protocol was registered with Prospero (CRD42018095992). Guidelines for research involving Indigenous people emphasise the importance of involving Indigenous people in the design and interpretation of research (National Health and Medical Research Council, (2018). Hence, an Indigenous researcher [removed for review] checked the study protocol and contributed to data extraction. Our approach to reviewing the literature entailed five steps as detailed below:

Step 1 – Defining the study parameters

The inclusion/exclusion criteria were established at the commencement of the review and recorded in a review protocol. We used the participant, intervention, comparator, outcome and study design tool (PICOS) (Moher et al. 2009), as summarised below:

Population: While the experiences of Indigenous peoples vary greatly, Indigenous communities in countries such as New Zealand, Canada, or the USA, share a colonial history, laws, political structures, and socioeconomic outcomes with respect to their Indigenous people (Lithopoulos 2007). We believed that including interventions aimed at addressing gambling by Indigenous peoples across the world would yield useful results.

Intervention: We included studies of formal programs or interventions aiming to address gambling-related harms across the spectrum of intervention from prevention to early intervention to treatment of gambling harm. Gambling was defined as wagering or betting money for a chance of profit, including playing bingo and cards for money, as well as commercial forms of gambling. Interventions of interest included counselling and other psychosocial approaches; regulation including self-exclusion; education; community-based responses; and prevention and policy. Interventions in included studies needed to include a description of components.

Comparators: We included studies which entailed qualitative descriptions of interventions and/or either a control arm, pre-post outcomes or qualitative information about outcomes without a comparator.

Outcomes: Included studies provided outcomes such as changes in behaviour, gambling behaviour, and health or wellbeing outcomes or outcomes from empirical qualitative evaluation for Indigenous people (studies without disaggregated data for Indigenous and non-Indigenous people were excluded).

Study designs: Eligible study designs were randomised controlled trials (RCTs), non-randomised RCTs, cluster RCTs, cross-sectional, case-control, case-series and qualitative studies. Review articles, news articles, editorials, comments and conference abstracts, opinion pieces were excluded. Peer-reviewed journal articles and grey literature were included to ensure a broad coverage of existing literature and to avoid publication bias. Gambling technologies such as poker machines and internet gambling evolve rapidly. The start year of the search, 2000, was chosen based on the assumption that the 18-year time-period would provide a comprehensive coverage of initiatives relevant to the contemporary experience of gambling. Included studies were published between the beginning of 2000 and the 17th May 2019, and available in English.

Step 2 Detailed searching of the literature

Search Strategy

The strategy for our search was developed in consultation with an expert librarian. The following databases were searched: EBSCOhost Databases, Informit Complete, ProQuest Central, PsychInfo (Ovid), and Google Scholar (first 100 results). We applied the following search string across all databases (gambling OR gaming OR bingo OR wagering OR betting) AND (Aborigin* OR Indigenous OR native OR "first nations") AND (intervent* OR program*), which was adjusted to database-specific requirements where needed. Grey literature searches were conducted via the following databases: Gambling Research Exchange Ontario, Victoria Responsible Gambling databases, The Grey Literature Report, The Australian Drug Foundation database, and Open Grey.

Insert here > Figure 1. The search strategy.

Screening according to inclusion/exclusion criteria

The combined database and grey literature searches yielded 644 records (after individual database electronic removal of duplicates). These were imported into the bibliographic citation management software, EndNote X8. The titles and abstracts of these records were screened by one author [removed for review] to remove articles that did not meet inclusion criteria, leaving 22 publications for closer examination.

Full texts of these publications were retrieved and examined by [removed for review] and at least one of the other authors, to assess for inclusion against established criteria. Publications where any doubts about inclusion existed (ie in relation to the clarity of program description) were discussed with another two authors [removed for review] until consensus was reached. Checking reference lists of included publications at this stage did not yield additional results. During this stage, a further 18 publications were excluded on the basis that they did not describe a program or intervention, they solely described gambling harm, they were purely theoretical, or opinion based, or they were guidelines without reference to evidence. Four publications were identified for inclusion in the review (Figure 1).

Step 3 Classifying publications

Initially, we intended to assess the study quality of quantitative papers by applying the EPHPP tool criteria (Effective Public Health Practice Project 2009) and for qualitative papers the CASP tool (Critical Appraisal Skills Programme 2013). However, due to the diverse methods used in included studies peer review was used as a benchmark to determine research quality (Sanson-Fisher et al. 2006).

Adapting the approach outlined by Sanson-Fisher et al. (2006), three authors [removed for review] classified publications as

- program descriptions (descriptions of methods or processes undertaken for an Indigenous gambling project, without data-based evaluation reported), and

- intervention research (studies that tested the effectiveness of an intervention in relation to gambling).

Step 4 Systematically extracting the data

A customised data extraction form, developed prior to the search for use in systematic reviews involving Indigenous people and communities, was adapted to facilitate the extraction of data on the characteristics of included studies (MacLean et al. 2015). For each included paper two authors used the tool to record data on first author and year; literature type (peer-reviewed or grey literature); study type (original, intervention, program description, measurement research); aim of study; population studied and location where research was conducted; focus; method/s; guiding principles, strategies employed or recommendations; outcomes or effects.

Step 5 Analysing the data

The included papers were coded for characteristics and outcomes using a thematic analysis approach (Braun and Clarke 2006). This involved reading through the papers carefully for information relating to the research questions. The results are organised according to the themes of: nature of programs, including strategies and principles; and program outcomes.

Limitations

There were methodological limitations in the design of this review. For example, our search protocol, though rigorous, may have led us to miss intervention research aimed at the general population which at the same time considered the cultural background of the participants. However, our concurrent scoping review of mainstream literature did not provide any indications that such an analysis exists. Indeed, several authors called for further research into treatment and intervention for problem gambling in mainstream communities as the evidence-base in this area is also lacking (Gooding and Tarrier 2009; Rash and Petry 2014).

Results

A total of four articles met the criteria for inclusion in our review, and a description of characteristics and outcomes is presented in Table 1. The papers were published between 2004 and 2018, with only one study published before 2010, and the remaining studies published thereafter. Three studies were peer-reviewed and one was classified as grey literature (Herd and Richards 2004; apparently a book chapter but only available from the Internet). Two articles addressed interventions in Australia (Fogarty et al. 2018; Lamb and Young 2011) and two were in New Zealand (Herd and Richards 2004; Morrison and Boulton 2013).

Nature of programs

Overall, the objective of described interventions or programs centred around the prevention or minimisation of harm related to problem gambling, or healing facilitation. Three involved program descriptions and one was an intervention study of a policy measure (Lamb and Young, 2011).

Of the three papers describing programs, two described New Zealand intervention strategies for Māori women at risk of gambling harm. One of these programs involved a culturally appropriate group approach to addressing gambling-related harm (Herd and Richards 2004).

An emancipatory and decolonising epistemological framework was central to the "Wahine Tupono" group program described by Herd and Richards (2004). Designed by Maori women for Maori women, the program is embedded in the "kaupapa Maori concepts of manaakitanga, tautoko, aroha, tetahi ki tetahi (caring, support and love, one to another)" (Herd and Richards 2004, p.178), and a Maori understanding of health as involving four cornerstones: physical, mental or emotional, spiritual and family. Cultural rituals, imagery, language, incantations, genealogy, songs, story-telling and healing methods are incorporated into the program and a celebration ceremony is held at completion (Herd and Richards 2004). Whilst culturally informed, Wahine Tupono also draws on and integrates Western knowledge. For example, a psycho-educational component provides information about gambling to give participants the opportunity to challenge misconceptions, gain insight into their experiences, and to explore the options and choices they have in relation to gambling. Local partner organisations provide training on budgeting and money management skills. Group facilitators have experience in counselling or health promotion and support and mentor each other (Herd and Richards 2004).

The second program targeting Mäori women described the development of an intervention checklist, informed by Maori cultural values, to facilitate safe gambling (Morrison and Boulton 2013). The Tu Toa Tu Maia program also included training resources designed to promote safe gambling amongst Maori women, also informed by Maori knowledge. This knowledge was obtained through a process of community research informed by Maori methodology. The checklist focusses on basic needs, relationships, safety, gambling behaviour, emotional attachment, denial, secrecy, and addiction and utilises cultural imagery and language. In the development phase, a community advisory group and other community members provided feedback on the authenticity and cultural relatedness of the resource. Reported flow-on effects of the Tu Toa Tu Maia Intervention have included community capacity building through awareness-raising campaigns with Māori and non-Māori social, health, and mental health organizations and gaming venue staff to promote the use of the checklist by their patrons (Morrison and Boulton 2013).

The third paper provided three Australian community-level case studies of health promotion practice addressing Indigenous gambling issues (Fogarty et al. 2018). The first of these, the Amity Community Services gambling education and harm minimisation program in the Northern Territory commenced with a process of community engagement and discussions with Indigenous and non-Indigenous health workers about gambling and its impact. Workshops were then run with community groups where story-telling and art were used to stimulate conversations and to develop strategies and resources to address gambling. These informed a broader public awareness and education program in which health promotion messages were translated into Aboriginal languages and distributed via 'talking posters', tv campaigns, t-shirts, mugs and bags.

In the second case study, community engagement was central to the Warruwi gambling help program, managed by the NSW Aboriginal Safe Gambling Service. Here community members and service providers were supported to develop and implement local action plans through community workshops, small grants and the appointment of Aboriginal Safe Gambling Ambassadors. This strategy was part of a broader gambling program involving phone counselling services for Aboriginal clients, online forums, training and support for other gambling help professionals, and promoting gambling awareness at major events, such as sporting events and music festivals (Fogarty et al. 2018).

'The Bidyadanga Gambling Diversion Program' in northern Western Australia, the third case study described by Fogarty et al. (2018), was initiated by elders concerned about the wellbeing of young people. The program aims were to strengthen community action and provide a supportive environment for young people. Through the program, a Youth and Community Engagement Coordinator was employed to engage young people in alternative activities to gambling, to build community awareness of gambling, and to build the capacity of young people to make informed decisions about their gambling behaviour. The program team worked in partnership with a range of other community agencies including the local Aboriginal medical service, the school, the policy, government child protection service and sport and recreation organisations (Fogarty et al. 2018).

The intervention study of a policy measure included in this review (Lamb and Young 2011) tested the efficacy of the Australian Northern Territory income management intervention.

Income management intervention was a key strategy of the Australian government's response to a contested report documenting successive government policy failure towards Aboriginal Australians and disturbing evidence of endemic child abuse, poor education, poor health, alcohol abuse, and problem gambling (Wild and Anderson 2007; Lamb and Young 2011). In 2007, legislation was passed to stipulate that half of any welfare payment provided to Aboriginal people living in specified parts of the Northern Territory (NT) could only be spent on certain products such as food, clothing, housing or health, thus reducing the cash flow available to the individual for EGM gambling (Lamb and Young 2011).

Outcomes

There were no empirical outcomes reported for gambling interventions specifically targeting Indigenous people. The only study that described outcomes was Lamb and Young's (2011) evaluation of the impact of the NT income management intervention targeting Aboriginal people on the amount spent on electronic gaming machine (EGM) gambling. Here, the findings were inconclusive. Lamb and Young (2011) found that the intervention appeared to have reduced spending at two of the thirteen venues they studied in the towns of Alice Springs and Katherine. However, they found that the effect was difficult to separate from other variables including local patterns in the use of gambling venues and other social policies (Lamb and Young 2011).

Whilst reported as an observation rather than as a finding of empirical qualitative research, Fogarty et al (2018) noted that community members spoke about how the Bidyadanga Gambling Diversion program resulted in a reduction in individual gambling, as people chose to attend local diversionary events rather than gamble. This, in turn, lessened the impacts of gambling on others. It also impacted positively on crime and substance misuse, improved cooperation between service providers, and community engagement in local activities (Fogarty et al. 2018).

Table 1. Characteristics of included publications

Authors, year, country	Study type	Aim of study	Population	Method/s	Program and Strategies	Outcomes
Fogarty, Coalter, Gordon and Breen (2018). Australia	Three program descriptions	To review community-level health promotion approaches to problem gambling	Indigenous Australian people	n/a	A health promotion approach incorporating: community engagement and locally designed strategies for counselling, staff training, diversionary activities, public awareness and education, and partnerships.	For one of the three programs described, changes in gambling behaviour, crime, substance misuse, service partnerships and community engagement in local activities were reported.
Herd and Richards (2004) New Zealand	Program description	To describe a culturally appropriate group program for addressing gambling-related harm	Maori women	Narrative description	Group healing intervention utilising cultural knowledge and integration of Western knowledge.	Not reported
Lamb and Young (2011) Australia	Intervention research	To test the impact of an income management intervention, commercial gambling	Aboriginal Australian people	Interrupted time-series analysis in two towns.	Policy options at the local level with community engagement.	Inconclusive results - partial reduction in money spent on EGM's in two of 13 venues. Other factors might have impacted on this outcome.
Morrison and	Program description	To describe the	Maori women	Narrative description	Intervention checklist,	Not reported

Authors, year, country	Study type	Aim of study	Population	Method/s	Program and Strategies	Outcomes
Boulton (2013) New Zealand		development of a checklist, informed by Maori cultural values.			informed by Maori cultural values, to facilitate safe gambling.	

Discussion and Conclusion

This study highlights an almost complete lack of research evidence internationally in relation to interventions designed to address gambling-related harm experienced by Indigenous individuals, families, and communities. The only intervention research study included in the review (Lamb and Young 2011) tested the efficacy of an Australian income management intervention to reduce spending on commercial gambling and the results were inconclusive. The authors raise concern about the potentially damaging effects of a policy that targets people according to race and caution against the ongoing implementation of income management until locally-variant effect are better understood.

Whilst this paucity of evidence is surprising, particularly in light of the international evidence that Indigenous peoples are at greater risk of gambling harm (Bertossa and Harvey 2014; Breen et al. 2010; Larsen et al. 2013; Young et al. 2007; Young et al. 2008), the findings are consistent with other literature reviews of intervention research for Indigenous peoples (See, for example, McCalman et al. 2014). This lack of research makes it difficult for program developers to design a program based on 'what works'. There remains a critical need for intervention research in this area. The lack of ready research evidence on strategies to combat gambling in Indigenous communities in Canada or the United States is particularly concerning, in light of gambling prevalence and problems in these countries (see, for example, Alegría et al. 2009).

However, whilst the evidence may be lacking, similarities in the descriptions of programs included in this review provide some important directions for pilot intervention design. Each involved a recognition of the impact of colonisation on Indigenous people and the need for an empowerment or emancipatory approach which involved local communities and integrated cultural knowledge. This differentiates Indigenous responses to gambling harm from mainstream approaches.

Regardless of the nature of the intervention, from accessible counselling services to group healing programs, safe gambling checklists and public awareness campaigns, all papers highlighted the importance of the intervention being guided by key principles. Three of the four included articles provided program descriptions that highlighted the importance of utilising guiding principles to inform the design of strategies to address gambling harm with Indigenous communities (Morrison and Boulton 2013; Fogarty et al. 2018; Herd and Richards 2004). These included taking an emancipatory approach, community engagement, local involvement in program design, integrating culture into the program, building community capacity, and partnerships between service organisations and community. Whilst the fourth article reported a study that was not informed by these principles and strategies and involved a government policy response, the authors concluded that policy responses to excessive gambling consumption require "locally-sensitive policies formulated jointly with Aboriginal interest groups" (Lamb and Young 2011, p. 136)

These principles are supported by other literature addressing Indigenous gambling where there is a strong focus on recognising the impact of historical and socio-economic factors (Nagel et al. 2011; Robertson et al. 2005) and the link between disempowerment, marginalisation and gambling (McGowan and Nixon 2004; Dyall 2012). Also recognised is the importance of cultural knowledge and, in some cases, spirituality, in individual and community recovery (Breen et al. 2010; Holdsworth et al. 2013; Nagel et al. 2011). This can be in the form of culturally grounded models and strengthened cultural knowledge among Indigenous people, as well as culturally informed resources (Nagel et al. 2011; Morrison and Boulton 2013; Dyall 2012); community and family support is considered vital especially where appropriate services are not available (Breen et al. 2010; Holdsworth et al. 2013). The involvement of local communities in their own strategies for change is viewed as a human rights issue as Indigenous rights, including those enshrined in international human rights and Indigenous rights conventions, include Indigenous people's right to develop their own institutional systems (Breen et al. 2010). Other writers support Fogarty et al.'s (2018) call for

a public health approach, as more holistic and multi-level strategies provide a corrective to the dominant over-emphasis on individual factors and one-on-one responses (Breen et al. 2013). Similar recommendations are made for social and emotional wellbeing interventions more broadly (Bainbridge et al., 2018).

The focus on principles and locally driven action to address gambling identified through this paper are significant as, in the mainstream literature, many gambling support programs and policies take a largely individual behaviour change approach to gambling harm (Miller et al. 2018). Illustrative of this, Breen et al. (2013) found that, while Indigenous community members and gambling venue managers identified gambling as social, gambling counsellors tended to identify gambling as a solitary activity. This suggests that their interventions may over-emphasise individually focused solutions, such as cognitive behaviour therapy and its variants, rather than seeing the communal and connected nature of gambling, and, in turn, the systemic and historical factors that makes gambling attractive in communities (Breen et al. 2010). Evaluation of programs founded on Indigenous principles as described above and which involve Indigenous people in planning and delivery are urgently required to confirm the efficacy of this approach on achieving outcomes in relation to harmful gambling.

In summary, this review identifies an urgent need for research of interventions designed for Indigenous populations that seek to prevent or address gambling harm. At present there is insufficient evidence to guide program design. This entails a long-term commitment to resourcing program development as well as rigorous evaluation design.

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