

**CANADIAN COUNSELLING PSYCHOLOGY GRADUATE STUDENT
KNOWLEDGE OF WOMEN PROBLEM GAMBLERS**

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A Thesis
Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfillment of the
Requirements for the Degree

MASTER OF EDUCATION
(COUNSELLING PSYCHOLOGY)

Faculty of Education
University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

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Dedication

This thesis is dedicated to my husband, Peter Casarella.

Thank you so much for your love, support, and patience.

Abstract

Problem gambling affects many people. Certain individual characteristics, like gender, may predispose individuals to become problem gamblers (PGs) at higher rates than others. For instance, women problem gamblers (WPGs) present with different gambling motivations than their male counterparts. Traditionally, gambling research has focused on males, leading to a dearth of WPG information and a potential knowledge deficiency among practitioners working with WPGs. Gaps in training should be addressed to improve the experiences of WPGs seeking treatment. This study aimed to ascertain the knowledge and training that graduate students in Canadian counselling psychology programs receive regarding problematic gambling, specifically gender differences. An online survey was administered in order to address five research questions focusing on demographics; knowledge and training for alcohol use, gambling, and gender differences in PGs; competence and comfort levels in working with PGs; and willingness to learn more about PGs, all with a specific focus on WPGs. Overall, 104 participants completed the survey. Few participants reported a program training focus on addiction (21.2%), alcohol use disorders (12.5%), with none on gambling, and little on gender differences among PGs. Less than 10% reported feeling trained to work with PGs and WPGs. Those who had engaged in extra training reported increased competence, comfort, and preparedness. Many indicated a desire for additional training, which could result in more effective and tailored treatments for gambling populations and ultimately ameliorate the experiences of WPGs. Future directions include additional surveys, challenging the view that PGs are homogenous, and developing training materials for gambling populations.

Acknowledgements

My graduate studies at the University of Lethbridge have fostered knowledge, passion, and growth, both personally and professionally. I feel fortunate to have been accepted into this unique and wonderful program and school. I owe my experiences throughout this degree to many people, all of whom deserve great thanks and acknowledgement.

First, I would like to thank my supervisor, Dr. Noëlla Piquette, for her guidance throughout this process. Noëlla, your mentorship was invaluable and essential to my success throughout this degree. Thank you for your support in the form of last-minute emails, reference letters, research direction, and general advice. I am very honoured that you afforded me the opportunity to conduct research under your supervision.

I would also like to thank my committee members, Drs. Darren Christensen and James Sanders. I am truly grateful for the time that you have taken to provide guidance to me. Your input in the early proposal days, at committee meetings, and at conferences is so appreciated. Darren, thank you for your attention to detail and for always taking the time to chat with me when we run into each other. You have challenged me to be thorough in my research and have contributed to my growth as an academic in a meaningful way. James, thank you for your kindness and support. You were always ready with a smile and had an approachable air about you that made it easy to seek support as a graduate student. Your passion for assessment has kept mine alive, and I always thoroughly enjoyed your courses. To my external examiner, Dr. Dan McGrath, thank you very much for lending your time and fresh perspective to this project. I appreciate your contribution to this endeavour.

Cindy Gaetz, thank you for providing me with several opportunities to be your Graduate and Teaching Assistant. I valued your feedback, challenges, and your commitment to students. I have gained so much from you, and I hope to continue to become an effective teacher and counsellor, much like the one that you represent. To Garret and Eileen, thank you for sharing the experience of co-facilitating lab groups together. I was able to adopt and practice new teaching and counselling techniques with your support. We shared many laughs, a few tears, and several growth experiences. I will never forget them or you. To the students I had the opportunity to teach, I learned so much from every single one of you, and I valued our time together. I wish you all nothing but success in your future endeavours.

To my cohort, I am without words to express my gratitude and love to you. What a crazy ride we have taken together! It feels bittersweet to see the program come to an end, as we scatter across the province and world, each pursuing our passion. I feel lucky to have been a member of an incredible group of counsellors, friends, and colleagues. Each and every one of you has taught me about myself, about counselling, and about connection. To my professors, I have learned so much from each one of you. You have all shaped me into the person I am today and contributed to my love for counselling psychology, research, and mentorship. Thank you.

To my editor, Shanaya, I would be so very far behind without your tireless efforts and meticulous eye for detail. Thank you so much for making this experience much easier to go through. To those who participated in the research, thank you for contributing to this project. I am grateful for the time you took to complete the survey, your thoughtful comments and questions, and your commitment to the research. This

research was funded by the Alberta Gambling Research Institute, the Government of Alberta, Alberta Scholarships Program, and the University of Lethbridge. Thank you all for making this project possible.

To my mum, thank you for your continued support and for believing in me as a scholar, researcher, and daughter. You continue to be my real-life hero and have shown me the person I aspire to be. To my dad, thank you for being unfailingly supportive, kind, and generous. Peter and I had the crazy idea to get married while I was in the middle of a graduate program. It would not have happened without you. To my sister, thank you for being so wonderful. You have provided relief, humour, and love throughout my life, and especially throughout this degree. To my stepdad, thank you for the family dinners and the reminders to engage in self-care. You are a great guy. To my nieces and nephew, you have inspired me to continue with research and counselling endeavours in order to contribute to the future generations in a meaningful way. To my grandparents, thank you for your love and support and for being interested in the research. I appreciate you taking the time to attend my colloquium and defence and for keeping updated on my project. To my new family, thank you for accepting me into the fold and for giving me opportunities to connect and grow in different ways. To my husband, thank you for everything. Thank you for giving me strength in the difficult moments and for making me laugh. You have been there every step of the way, from the good to the bad, and your unconditional support is what has made this entire process an unbelievable growth experience. Here's to many more growth experiences throughout our lives. I love you.

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Chapter 1: Focus and Framing

The aim of this research was to determine the existing levels of knowledge and training that graduate students in Canadian counselling psychology programs have in regards to problem gamblers (PGs) and, more specifically, women problem gamblers (WPGs). An online quantitative cross-sectional survey was disseminated to graduate students in Canadian counselling programs in order to ascertain current levels of training and knowledge regarding PGs and WPGs. This chapter briefly outlines the motivation and rationale for this research, the objectives of this study, and the contributions of this project to the overall field of gambling research.

Overview of the Problem

Definition. The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) has stated that the diagnostic criteria for gambling disorder includes recurring behaviour that leads to clinically significant distress (American Psychiatric Association, 2013). Regarding gambling severity, there has been a “longstanding debate . . . as to whether gambling disorders comprise a single, sharply distinguished pathological entity or lie on a continuum . . . [or] comprise a hierarchy of logically related but qualitatively different disorders” (Toce-Gerstein, Gerstein, & Volberg, 2003, p. 1662).

In working towards a cohesive definition of gambling disorders, all conceptualizations (e.g., gambling as a medical or mental, as a social construct, etc.) should be taken into consideration (SA Centre for Economic Studies, 2005). Within this thesis, I use the terms problem gambling or PG as umbrella terms to incorporate at-risk, problem, and pathological gambling and gamblers. Further, problem gambling and

gamblers should not be read within this thesis as clinical terms, but rather as phrases that encompass all forms of detrimental gambling behaviours, clinical or otherwise, as well as those people who exhibit these behaviours.

Prevalence. Worldwide, the average past-year prevalence rate of problem gambling was approximately 2.3% (Williams, Volberg, & Stevens, 2012). In Canada, the 12-month prevalence rate has been approximated to be between 1.8% (Williams et al., 2012) and 2.0% (Cox, Yu, Afifi, & Ladouceur, 2005). Problem gambling is higher in certain groups of people, including Canadian youth (ages 15 to 24; Huang & Boyer, 2007), males (Afifi, Nicholson, Martins, & Sareen, 2016; Blanco, Hasin, Petry, Stinson, & Grant, 2006; Huang & Boyer, 2007; Williams et al., 2012), and incarcerated offender populations (Turner, Preston, McAvoy, & Gillam, 2013).

Consequences. Individual costs associated with problematic gambling include poor physical health (Afifi, Cox, Martens, Sareen, & Enns, 2010b; Marshall & Wynne, 2003), poor mental health (Afifi et al., 2010b; Echeburúa, González-Ortega, de Corral, & Polo-López, 2011; Marshall & Wynne, 2003; Yi & Kanetkar, 2011), suicidality (Hodgins, Mansley, & Thygesen, 2006; Komoto, 2014), and bankruptcy (Grant, Schreiber, Odlaug, & Kim, 2010; Komoto, 2014). Significant financial losses and strain can also accompany gambling addiction (Marshall, 2011; Marshall & Wynne, 2003). Important to note is that WPGs may experience consequences associated with gambling disorders differently than male PGs. For instance, WPGs may be more vulnerable to certain mental and physical health problems (Afifi et al., 2010b) and financial issues (Komoto, 2014; Marshall & Wynne, 2003) than their male counterparts. Problem gambling often also has consequences for family members of PGs (Black, Shaw,

McCormick, & Allen, 2012; Cheung, 2015; Dowling, Rodda, Lubman, & Jackson, 2014; Dowling, Jackson, et al., 2014; Echeburúa et al., 2011; Mathews & Volberg, 2013) and can affect the economy and society (Marshall & Wynne, 2003; Walker & Kelly, 2011; Williams, Rehm, & Stevens, 2011). The detrimental and widespread impact associated with gambling reinforces the need to increase awareness and research on this topic. By focusing on the gender differences inherent in gambling, the consequences of these disorders may be mitigated. For instance, the provision of tailored treatments based on individual characteristics may improve the experiences of WPGs seeking treatment.

Risk factors. Certain risk factors may predispose one to have an increased chance of developing a gambling disorder. I briefly outline these risk factors here and describe them in more detail in Chapter 2.

In general, PGs are more likely to be single, divorced, or widowed than non-PGs (Afifi, Cox, Martens, Sareen, & Enns, 2010a; Black et al., 2012; Blanco et al., 2006; Echeburúa et al., 2011). Certain cultural groups may be more at risk of becoming a PG (Marshall & Wynne, 2003; Raylu & Oei, 2004) or of being stigmatized for gambling behaviours (Dhillon, Horch, & Hodgins, 2011). Many psychological factors (e.g., depression) and substance abuse disorders (e.g., alcohol use) have been associated with gambling (Afifi et al., 2010b; Blanco et al., 2006; Dowling & Brown, 2010; Echeburúa et al., 2011; Lorains, Cowlishaw, & Thomas, 2011; Mishra, Lalumière, Morgan, & Williams, 2011; Nordmyr et al., 2014; Williams, Royston, & Hagen, 2005). Furthermore, risk of becoming a PG has been associated with the type of gambling preferred, such as video lottery terminals (VLTs), bingo, and online- versus land-based

gambling (Echeburúa et al., 2011; Grant & Kim, 2002; Hing & Breen, 2001; Marshall & Wynne, 2003; Nordmyr et al., 2014; Oliveira & Silva, 2001).

Important to note is that female and male PGs differ in regards to several risk factors, which may have implications for the most effective treatments for both groups. WPGs typically report lower incomes (Afifi et al., 2010a; Echeburúa et al., 2011; Wenzel & Dahl, 2009), begin gambling later in life, and progress more quickly than men to problem gambling (Echeburúa et al., 2011; Grant & Kim, 2002; LaPlante, Nelson, LaBrie, & Shaffer, 2006). As such, older men are less at risk for becoming a PG (Afifi et al., 2010a; Blanco et al., 2006; Echeburúa et al., 2011; Nordmyr et al., 2014). Males and females have also been shown to prefer different gambling games (Grant & Kim, 2002; Hing & Breen, 2001; LaPlante et al., 2006; Potenza et al., 2001; Wenzel & Dahl, 2009).

Along with different game preferences, women have been shown to gamble for different reasons than men, such as to relieve feelings of depression and loneliness (Blanco et al., 2006; Echeburúa et al., 2011; Grant & Kim, 2002; Wenzel & Dahl, 2009). Relatedly, WPGs have been found to be more likely to present with mood disorders than male gamblers (Echeburúa et al., 2011). The age of onset of disorders associated with gambling (i.e., temporal sequencing) may also differ between men and women (Haw & Holdsworth, 2015). Given that comorbidities are likely to worsen gambling symptoms and complicate treatment, more awareness surrounding gender differences in PGs is needed in order to incorporate this knowledge into developing more integrated and tailored gambling treatments (Holdsworth, Haw, & Hing, 2012).

The gender differences in the risk factors that contribute to the development of gambling disorders highlight a need to consider different treatment options for men and

women who present as PGs (Potenza et al., 2001). For instance, treatments aimed at specific groups (e.g., subsidized programs for middle-aged WPGs with lower incomes) or interventions that target various aspects of the disorder (e.g., the underlying motivation for gambling) may be helpful.

Treatment implications. There is a need for more standardized treatment research and further examination of treatment outcome predictors, such as individual differences (Pallesen, Mitsem, Kvale, Johnsen, & Molde, 2005). Researchers who study pathological and incarcerated PGs have advocated for the need to target gambling treatments to specific populations (Williams et al., 2005). Similarly, the inherent variance in men's and women's experiences of addiction (Afifi, 2007) present a call for mental health professionals to consider individual differences associated with gambling disorders in the context of prevention, treatment, and policies that focus on PGs (Crisp et al., 2000; Dowling, 2013; Grant & Kim, 2002; Grant & Potenza, 2004; Nordmyr et al., 2014; Toneatto & Millar, 2004). Providing treatments that are tailored to the heterogeneity of PG groups will ensure maximum utilization and efficiency (Grant & Kim, 2002; Grant & Potenza, 2004; Toneatto & Millar, 2004; Williams et al., 2005). As an example, Dowling (2013) has suggested cognitive behavioural therapy (CBT), with the aim to either abstain or control gambling behaviours, may be helpful in treating WPGs, particularly in individual therapeutic settings, although more research is needed.

Alcohol use disorder. In Chapter 2, I provide a brief overview of alcohol use disorders (American Psychiatric Association, 2013). Substance abuse and behavioural addictions share similar characteristics, although they are distinct enough to justify discrete study. While the realm of substance abuse disorders has been thoroughly

studied, behavioural disorders require further attention (Grant, Potenza, Weinstein, & Gorelick, 2010). In the thesis survey, I compare problem gambling and alcohol use disorders, given the high rates of co-occurrence between them, which provides a baseline for how various addiction disorders are addressed in Canadian counselling graduate programs. The comparison also serves to show how there has been a relative absence of training provided for gambling disorders, which is discussed further in Chapter 4 (Results).

Rationale

Gambling is a disorder that is associated with many consequences. The risk factors that predispose someone to developing a gambling problem reveal that men and women experience gambling disorders differently, which may have implications for treatment. Despite this, the majority of gambling research thus far has been conducted on all-male samples (Crisp et al., 2000; Li, 2007). As such, it is increasingly important to bridge the gap between the amount of data available on male versus female gamblers. A paucity of literature on female gambling has resulted in a lack of research conducted on the most effective treatment options for WPGs.

Currently, minimal information is available regarding the level of knowledge that mental health practitioners and graduate students have in regards to working with PGs (Christensen, Patsdaughter, & Babington, 2001; Derevensky & Gupta, 2004; Drebing et al., 2001; Mello, 2003; Tse, Wong, & Chan, 2007). Manuals are available regarding the best forms of treatment options for women dealing with substance abuse (Currie, 2001), although few comparable treatment manuals are available for WPGs. Finally, I found very little research on knowledge dissemination regarding PGs in educational institutions.

Ultimately, the limited research surrounding effective treatments for WPGs translates into a need for more awareness of the impact of problem gambling, its effect on vulnerable and at-risk populations (i.e., women), and the implications for treatment outcomes (Korn, 2000). Increased awareness and information dissemination regarding the gender differences in problematic gambling should begin at the ground level, educating those about to enter the workforce in counselling psychology, addiction, and mental health fields. In order to ensure that graduate students receive an integrative and encompassing education regarding PGs, particularly WPGs, one must first deduce what students *do* know about this population. In doing so, gaps in their knowledge may be addressed and perhaps rectified.

Objectives of Current Study

The purpose of this study was to ascertain the amount of knowledge that graduate students have regarding PGs, and more specifically, WPGs. To be eligible to participate in this research, I required participants be at least 18 years of age and enrolled in a recognized graduate-level counselling program in a Canadian university. I sent informational emails to counselling psychology departments describing the purpose of the study (Appendix A). I included another email that departments could forward to eligible students (Appendix B) that contained a link to the online SurveyMonkey® (2016) questionnaire (a full copy of the survey is available in Appendix C). I explored five research questions (RQs) throughout the survey:

RQ1: What is the demographic profile of survey respondents?

RQ2: What knowledge and training is provided to graduate students in recognized Canadian counselling psychology graduate programs regarding

addiction, specifically knowledge and training in regards to gambling and alcohol use disorders?

- RQ3: What knowledge and training is provided to graduate students in recognized Canadian counselling psychology graduate programs in regards to gender differences in gambling disorders?
- RQ4: Based on education and training thus far, what is the current level of comfort, competence, and preparedness that current graduate students in recognized Canadian counselling psychology graduate programs report in relation to working with clients, particularly female clients, presenting with gambling-related problems?
- RQ5: What are the current levels of willingness and interest in gaining more training and knowledge regarding PGs and WPGs?

Contributions

I thoroughly discuss the results of the online survey in Chapter 4, as they pertain to the RQs. I also provide a brief summary of the background, purpose of the thesis project, implications of the results, and limitations and strengths of the study in Chapter 5. As such, I only briefly describe the results and implications of this project here.

Pertinent results. Overall, 104 respondents were included in the analysis. Of these, 92.3% ($n = 96$) identified as female, the average age of respondents was 32.6 years, and many were completing a master's degree. Respondents reported no specific focus on gambling-related problems in their programs and classes and consistently reported less graduate school and practicum training for gambling disorders when compared to alcohol use disorders. In total, 80.8% ($n = 84$) of respondents believe that there are gender

differences among people who have gambling disorders, and 66.3% ($n = 69$) believe that these lend themselves to tailored treatments for male and female PGs. However, respondents reported low numbers of training associated with gender differences in gambling disorders. This, combined with the lack of focus on gambling in programs, indicate that there is very little training available to graduate students who may work with PGs. Relatedly, respondents indicated that they generally feel uncomfortable, incompetent, and unprepared to work with PGs and WPGs. This is further indicated by the low percentage of respondents who felt they had been effectively trained and educationally prepared to work with PGs (8.7%; $n = 9$) and with WPGs (6.7%; $n = 7$). Despite this, many who had engaged in extra training (i.e., reading articles, attending conferences, etc.) reported feeling more prepared to work with PGs. Additionally, over half of the respondents indicated being interested and willing to learn more about working with gambling disordered populations, and with female gambling clients in particular.

Implications. The majority of respondents believe that the gender differences in gambling disorders may lend themselves to alternative treatments for different groups of gamblers, warranting increased awareness and focus on this topic in educational institutions, with professional bodies and therapists, and in the general public as well. Furthermore, the discrepancy between training for alcohol use and gambling disorders is alarming and may suggest an area in need of curriculum development and further investigation. This further highlights the need to provide additional training in gambling for those who may, or who currently, work with PGs. Moreover, this study provides

evidence for the provision of tailored treatments for different groups of gamblers, such as women.

Clearly, the inaugural survey utilized in this study only begins to explore what seems to be an important issue. Future replications of this study and utilizations of this survey should be conducted with WPGs themselves, those already working in the field of counselling psychology, and more student populations. Surveying WPGs could be helpful in ameliorating treatment practices and will likely yield powerful and informative results. Doing so may also lead to the development of training for those who desire to learn how to work effectively with these populations, as well as the potential development of targeted treatments. Finally, it is important that future research continue to challenge the view that those suffering from gambling issues are a homogenous group.

Outline of the Thesis

A thorough review of the literature and research are discussed in Chapter 2, an in-depth review of the methods are available in Chapter 3, and the survey results are presented in Chapter 4. A discussion of the implications of results, strengths and limitations, conclusions, and future directions are provided in Chapter 5. The references and appendices are presented at the end of this thesis.

Chapter 2: Review of the Literature

Prior to presenting the details of the research study, in this chapter I attempt to place the thesis objective within a broader context. In sum, this chapter begins by focusing on aspects of problem gambling, such as prevalence rates, consequences, and risk factors, all presented with an emphasis on gender differences. Of note, while sex differences are an important aspect of this topic as well, this thesis will discuss mostly gender differences, as a comprehensive discussion of both would render this document too long for a master's thesis. Nevertheless, given that both gender and sex are intrinsically interwoven, basic sex differences are discussed throughout this thesis in the context of gender. The gender differences in PG presentations have highlighted the need to consider these variances for treatment interventions as well. This need is particularly salient for WPGs, given the lack of research specifically addressing their unique presentations and treatment needs. Unfortunately, exacerbating this is the limited knowledge and training that current practitioners hold, indicating that future practitioners likely acquire even less information and education in regards to PGs. Specifically, through this project, I sought to determine how much knowledge Canadian counselling psychology graduate students have in regards to PGs, and more specifically WPGs. Finally, I outline the RQs this project attempts to address.

Definitions

Diagnostic and Statistical Manual of Mental Disorders. Pathological gambling was previously considered an impulse control disorder (American Psychiatric Association, 1980), first introduced in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM) third edition (see also Petry, 2006).

The diagnosis and definition of pathological gambling have both undergone many revisions since its addition into the DSM (American Psychiatric Association, 2013; Petry, 2006) and is currently considered an addictive or substance-related disorder (American Psychiatric Association, 2013).

According to the current DSM-5 (American Psychiatric Association, 2013), the diagnostic criteria for a gambling disorder includes “persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress” (Section 312.31, para. 1). Impairment or distress is defined by the exhibition of at least four of the following behaviours within a 12-month period:

1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
2. Is restless or irritable when attempting to cut down or stop gambling.
3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
7. Lies to conceal the extent of involvement with gambling.
8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.

9. Relies on others to provide money to relieve desperate financial situations caused by gambling. (American Psychiatric Association, 2013, Section 312.31, para. 2–10)

Cohesive definition. I found many definitions of problem gambling that fall under several conceptualizations (e.g., a mental or medical disorder, an economic issue, a problem lying on a continuum of gambling behaviours, an issue relating to the amount of harm it brings to an individual, or a social construct), all of which should be considered in order to develop a national definition for problem gambling (SA Centre for Economic Studies, 2005). As noted in Chapter 1, I use the term PG to describe anyone who presents with a gambling disorder, addiction, problem, and/or pathological presentation. Moreover, I use the term problem gambling to identify the many subtypes and terms associated with problematic, addictive, or detrimental gambling behaviours. Once again, this phrase should not be considered to be a clinical term, as it incorporates gambling behaviours that may not be considered pathological. I utilize this approach simply for ease of reading throughout this manuscript.

Substance versus behaviour. In the DSM-III, gambling was considered an impulse control disorder (American Psychiatric Association, 1980; see also Petry, 2006). Petry (2006) noted, historically, some controversy existed regarding the inclusion of gambling within the substance use disorders section of the DSM-III-R (American Psychiatric Association, 1987), given the lack of substance being ingested. Gambling disorders are currently considered a nonsubstance, or behavioural addiction, defined as “syndromes analogous to substance addiction, but with a behavioral focus other than ingestion of a psychoactive substance” (Grant, Potenza, et al., 2010, p. 234). Behavioural

and substance addictions share many similarities, including repetitive behaviour that consists of failing to resist a potentially harmful temptation, comorbidities, treatment response, and physiological features (Grant, Potenza, et al., 2010; Petry, 2006). Grant, Potenza, et al. (2010) stressed the importance of conducting further research “to bring our knowledge of behavioral addictions to the level of that for substance addictions” (p. 240). In this thesis project, problem gambling is compared to alcohol use disorder, given the latter’s more heavily researched status in order to obtain a baseline of how the knowledge and training of these two disorders compare.

Classification. There has been some debate on how to classify gambling disorders (Toce-Gerstein et al., 2003). Some researchers have suggested that, like most addictive behaviours, gambling exists on a spectrum spanning from recreational or nongambler, to at-risk gambler, and finally, to problem or pathological gambler (SA Centre for Economic Studies, 2005; Toneatto & Millar, 2004; Williams et al., 2012). The nomenclature and definitions of these terms vary; however, in North America, problem gambler denotes “a level of gambling, which is at an earlier stage, or which leads to fewer problems than the later stage or more severe problems experienced or caused by those gamblers who are clinically diagnosed as ‘pathological gamblers’” (SA Centre for Economic Studies, 2005, p. v). Others have posited that gambling disorders should be classified in a hierarchical system (i.e., certain clusters of variables distinguish different disorder patterns within a hierarchy of gambling problems), or as a case (i.e., a distinct pathological disorder; Toce-Gerstein et al., 2003).

Many assessment and screening tools exist to categorize gambling severity (e.g., classify between PGs and non-PGs), including the South Oaks Gambling Screen

(SOGS), Canadian Problem Gambling Index, Problem and Pathological Gambling Measure, and the National Opinion Research Center DSM Screen for Gambling Problems (NODS; Williams & Volberg, 2014). The severity of the gambling issues that one is experiencing may be helpful in determining the best course—and type—of treatment (Grant & Potenza, 2004).

Etiology and subtyping. Related to the classification debate, theoretical models of gambling have been hindered by a lack of cohesive definition as well as a tendency to group gamblers into a homogenous group. Nevertheless, some models have been proposed. A pathways model that integrates variables contributing to the etiology of gambling disorders has identified three groups of gamblers: behaviourally conditioned, emotionally vulnerable, and antisocial impulsive gamblers (Blaszczynski & Nower, 2002). Subtyping pathological gambler types has also occurred, based on psychopathology, personality, and gambling motivation factors, and concluded that three subtypes of PGs likely exist: (a) neurotic, depressive, or anxious; (b) impulsive and motivated to gamble to avoid boredom or increase arousal; and (c) exhibits no signs of psychopathology or personality characteristics, but whose motivation to gamble arises due to external factors or behavioural conditioning (Milosevic & Ledgerwood, 2010). Problem gambling for those who committed illegal acts has resulted in four possible subtypes of PGs being proposed (e.g., one subtype contained the highest percentage of females, had higher levels of psychopathology and emotional distress, and were characterized by novelty seeking; Granero et al., 2015). These models are useful as they acknowledge the heterogeneity of PGs, highlighting the fact that different groups of gamblers may benefit from differently tailored treatments.

Prevalence

Important to note is that prevalence rates may differ depending on the definition of the disorder, as well as assessment tool used to collect the data (Petry, 2006; Williams et al., 2012). Petry (2006) provided a brief discussion of the SOGS and NODS and how these relate to prevalence rates of pathological gambling. Prevalence rates throughout the world, Canada, provincially, and in various groups of people are outlined subsequently.

Worldwide. Problematic gambling behaviours can place a significant burden on those affected by them, and high prevalence rates suggest that many people struggle with this (Cox et al., 2005; Williams et al., 2012). Worldwide, the lowest reported rates are in Denmark, the Netherlands, and Germany, while the highest rates occur in Singapore, Macau, Hong Kong, and South Africa, with the average prevalence rate across all countries estimated to be 2.3% (Williams et al., 2012).

Canada. In Canada, gambling began to increase in the late 1980s and achieved its peak prevalence about a decade later, likely due to the rapid expansion of gambling opportunities (Cox et al., 2005; Williams et al., 2012). In 2002, 18.9 million Canadians reported having gambled, with 1.2 million deemed at risk for, or already classified as, PGs (Marshall & Wynne, 2003). Studies published in 2005 reported that the lifetime prevalence of adult PGs in North America was between 5.0–10.0% (Pallesen et al., 2005) and the past-year prevalence of Canadian problem gambling was approximately 2.0% (Cox et al., 2005). More recently, research has concluded that the past-year prevalence rates of problem gambling in Canada averages approximately 1.8% (Williams et al., 2012).

Provincial. Across the provinces, the lowest average past-year prevalence rates of problem gambling occur in Québec (1.3%) and Prince Edward Island (1.4%), while the highest average rates occur in Alberta (2.8%), New Brunswick (3.7%), and British Columbia (3.3%; Williams et al., 2012). In earlier years, only 18.0% of a sample of 1,804 Albertans were said to be nongamblers (Smith & Wynne, 2002), and the provinces with higher proportions of at-risk or problem gamblers were Manitoba (9.4%) and Saskatchewan (9.3%; Marshall & Wynne, 2003). These results were echoed by a 2005 study that found that Manitoba (2.9%) and Saskatchewan (2.9%) had the highest past-year prevalence of gambling problems, while Québec (1.7%) and New Brunswick had the lowest (1.5%; Cox et al., 2005). In this vein, Cox et al. (2005) reported that the provinces with higher gambling prevalence rates were correlated with a higher number of casinos and VLTs in those areas.

Specific groups. Regarding low- and moderate-risk gambling in Canadian youth (ages 15 to 24), an estimated past-year prevalence of 2.2% has been reported, with the highest prevalence reported to be in Ontario (2.8%), and the lowest in British Columbia (1.4% Huang & Boyer, 2007). In offender populations, the prevalence of moderate and severe problem gambling is much higher than the general population. One study conducted in Ontario reported that the prevalence of severe problem gambling amongst offenders was between 7.8% and 13.6%, depending on the assessment tool used, and averaged 8.9% prior to incarceration (approximately 7–12 times higher than the prevalence in the general population) and 4.4% during (4–5 times higher than the general population; Turner et al., 2013).

Gender. The demographic correlates of problem gambling reported by Williams et al. (2012) suggest that, in Canada, younger males are more likely to be PGs than females. In 2002, 8.0% of men versus 5.0% of women were deemed to be at higher risk of becoming a PG (Marshall & Wynne, 2003). Nordmyr et al. (2014) reported a higher prevalence of problem gambling among Finnish men (7.6%) versus women (3.1%), and Blanco et al. (2006) found that American males had a lifetime prevalence rate of pathological gambling of 0.6% (compared to 0.2% for females), and a 6.8% rate of subclinical pathological gambling (3.3% for females). In youth, this trend persists (Afifi et al., 2016; Huang & Boyer, 2007), with significantly higher proportion of males (3.3%) than females (1.1%) being affected by gambling issues (Huang & Boyer, 2007).

Form of gambling. Despite the higher rates of gambling for males, high gambling participation rates for both genders have been reported (e.g., 65.0% of people bought lottery tickets, 36.0% bought instant-win tickets, and 22.0% went to a casino), particularly for those over 24 years of age (78.0% for men and 73.0% for women; Marshall & Wynn, 2003). Males are more likely to gamble with VLTs (7.0% compared to 5.0% of women) and bet on horse racing (5.0% compared to 3.0% of women), while women were more likely to play bingo (12.0% compared to 5.0% of men; Marshall & Wynn, 2003). In contrast, Turner et al. (2013) discovered that, compared to 8% of males, 45% of female offenders reported having problems with slot machines prior to incarceration; as such, females were less likely to experience gambling issues while incarcerated, due to the lack of preferred form of gambling (Turner et al., 2013).

Geographic location, availability of gambling games, and individual characteristics may contribute to increased prevalence rates of problem gambling. These

factors may also factor into a heightened risk of becoming a PG and affect treatment approaches for different PG groups (e.g., interventions focusing on abstinence from VLTs for WPGs who experience issues with that specific form of game). As such, individual differences that affect the risk and prevalence of gambling should be kept in mind, particularly when designing treatment and harm reduction programs. In the rest of the chapter, I outline various facets of gambling disorders, while keeping gender differences at the forefront of the discussion.

Consequences of Gambling

Individual. Problem gambling is associated with consequences for PGs, particularly when compared to non-PGs (Afifi et al., 2010b; Hodgins et al., 2006; Marshall & Wynne, 2003; Yi & Kanetkar, 2011). Mental health and substance use disorders are highly associated with problem gambling. For instance, higher rates of PGs have reported extreme levels of stress (42.0% in comparison to 23.0% of nongamblers), clinical depression (24.0% in comparison to 11.0% of nongamblers), suicidality (18.0% of PGs had contemplated suicide compared to 3.0% of nongamblers), and alcohol dependence (15.0% compared to 7.0% of low-risk and 2.0% of non-problem gamblers; Marshall & Wynne, 2003). Other studies have suggested higher rates of comorbidities (Lorains et al., 2011), which will be discussed in the section pertaining to comorbidities.

Shame and guilt have been associated with gambling, particularly after a financial loss (Echeburúa et al., 2011; Yi & Kanetkar, 2011). PGs at the far end of the gambling spectrum may experience advanced psychological and financial difficulties, such as bankruptcy and suicide attempts (Hodgins et al., 2006; Komoto, 2014). Both of these have been positively correlated with female gender, having a history of addiction within

the family, and being unemployed (Komoto, 2014). In addition, bankruptcy has been associated with being single (Grant, Schreiber, et al., 2010; Komoto, 2014), having mental health and addiction issues, and increased financial, relationship, and legal strains (Grant, Schreiber, et al., 2010). Afifi et al. (2010b) outlined several associations between problem gambling and various mental and physical health concerns in Canadian women. They found that WPGs were likely to experience poor overall physical health (i.e., bronchitis, fibromyalgia, and migraines) and reduced psychological health (i.e., increased suicidality, higher distress, and increased risk for several mental disorders, with the exception of drug dependence; Afifi et al., 2010b). Finally, problem gambling has been associated with crime (Granero et al., 2015) and being an offender (Turner et al., 2013).

The consequences experienced by individual PGs may complicate treatment planning, initiation, and response (e.g., guilt associated with gambling may limit one's help-seeking; Yi & Kanetkar, 2011). Furthermore, the varying severities and individual characteristics of PGs may warrant specific interventions aimed at treating the primary concerns of different groups (Granero et al., 2015).

Cost. The financial and health costs associated with gambling seem to increase in tandem with the rise of problematic gambling behaviour. Marshall and Wynne (2003) found that gambling wagers increased from \$2.7 billion to \$11.3 billion—alongside prevalence increases—between 1992 and 2002. In addition, they discovered that 62% of PGs, 43% of at-risk gamblers, and 21% of low-risk gamblers were likely to spend over \$1,000 per year (Marshall & Wynne, 2003). In 2009, gambling costs per the average Canadian over 18 years of age was approximately \$515 per year (Marshall, 2011).

Approximately 85% of PGs have admitted to betting more than they can afford, in comparison to 47% and 14% of moderate- and low-risk gamblers, respectively (Marshall & Wynne, 2003).

The literature consistently found men spend more money than women on gambling. Among those who spent over \$1,000 in 2001, the median value for men was \$2,280 (compared to \$1,900 spent by women; Marshall & Wynne, 2003). A decade later, males were reported to have spent almost twice as much as females (\$615 compared to \$335; Marshall, 2011). Overall, Wenzel and Dahl (2009) reported that males and females with gambling problems both grapple with financial and legal issues, although results are contrasting as to who is more affected.

Family. Along with significant costs to PGs, gambling disorders can also impact families (e.g., financial strain and unpaid bills; Marshall & Wynne, 2003). The shame and stigma associated with family member's debts can be incredibly detrimental to family members, particularly in collectivist cultures (Mathews & Volberg, 2013). Relatedly, problem gambling has been associated with consequences to families and marriages, including higher rates of dysfunction, divorce, and childhood maltreatment (Black et al., 2012). In Black et al.'s (2012) study, PGs reported higher divorce and childhood maltreatment rates and the majority (61%) reported abuse, compared to 25% of controls. In another study, overall rates of domestic violence victimization among PGs were reported to be 27.0% (Dowling, Jackson, et al., 2014). For readers interested in more information, Mathews and Volberg (2013) provide a literature review detailing the impact of gambling on the family.

Regarding gender differences, Echeburúa et al. (2011) found that 68.6% of females in their study on PGs had been victims of intimate partner violence, while WPGs in another study were 2.1 times more likely to report having been victimized than men (Dowling, Jackson, et al., 2014). In a study examining the help-seeking characteristics of PGs' spouses, results indicated that spouses were often young females and were affected by their partners' gambling in various ways (e.g., emotional distress, relationship, social life, financial, employment, and physical health impacts; Dowling, Rodda, et al., 2014). In this vein, females' gambling behaviours have been found to be more likely to be affected by strain within their marriage, while male gambling behaviour is typically less affected by negative emotions (Cheung, 2015). The serious impact of gambling on a family, including violence, highlights the importance of providing specialized and effective treatment (Dowling, Jackson, et al., 2014), particularly for WPGs (Cheung, 2015).

Society. Problematic gambling behaviours also affect society and the economy. Williams et al. (2011) provided an in-depth report on this for those who are interested. Overall, an increase in gambling venues results in increased infrastructure value (e.g., new roads and associated upgrades), economic growth, and the provision of more employment opportunities (Williams et al., 2011); however, social costs are also likely, including heightened incidences of problem gambling, crime rates, and job interference (Marshall & Wynne, 2003; Walker & Kelly, 2011; Williams et al., 2011). Thompson, Gazel, and Rickman (1997) listed the social costs of gambling, including employment (lost work hours and productivity and unemployment compensation), debt, costs

associated with court and criminal justice (including theft), therapy, and welfare (see also Walker & Kelly, 2011).

The consequences associated with gambling may be further compounded by the difficulty of quitting these behaviours, even when individuals are aware that their gambling is problematic (Marshall & Wynne, 2003), which could be due to a lack of specialized treatment interventions. In increasing awareness of the consequences, risk factors, and effective treatments for PGs, practitioners may be able to mitigate some of the devastating consequences associated with gambling disorders.

Risk Factors

There are many factors associated with an individual's increased risk of developing problematic gambling behaviours (LaPlante et al., 2006; Marshall & Wynne, 2003; Oliveira & Silva, 2001), including gender (Blanco et al., 2006; Echeburúa et al., 2011; Grant & Kim, 2002; Hing & Breen, 2001; Nordmyr et al., 2014). Two hypotheses should be mentioned prior to this discussion: gender as proxy and direct gender effect.

Gender as proxy hypothesis. The gender as proxy hypothesis examines “the degree to which gender is a proxy for factors commonly associated with gender rather than being a direct risk factor” (Dowling, 2013, p. 230). This indicates that gender is a contributor to gambling, although is not a sole predictor in how gambling patterns will evolve; thus, gender should not be considered alone, but rather in tandem with other factors (e.g., demographic or economic; Dowling, 2013; Nelson, LaPlante, LaBrie, & Shaffer, 2006).

With this in mind, there are common traps associated with the consideration of gender differences in mental health and addiction disorders. These include (a) making

inaccurate generalizations on the basis of gender differences, (c) forming assumptions about the causative role of gender, and (c) neglecting the underlying mechanisms that may affect the differences in individuals (Nelson et al., 2006). LaPlante et al. (2006) also stated that their study findings highlighted the necessity to be aware of overgeneralizing one characteristic over other relevant ones in the context of treatment planning.

Direct gender effect hypothesis. Despite this, gender differences remain an important consideration for many aspects of the development of gambling disorders and can impact how one experiences the disorder as well as treatment interventions. For instance, the motivations for WPGs to engage in gambling behaviours (e.g., to escape negative emotions) may lead directly to the telescoping effect (i.e., develop gambling problems later in life, progress to a severe disorder quickly, and seek help quickly; Nelson et al., 2006). Figure 1 demonstrates the difference between these two hypotheses (Nelson et al., 2006).

Nelson et al. (2006) suggested that the various ways that men and women differ in terms of the consequences of their gambling disorders may impact the trajectory of the disorder differently in men and women. In this vein, Afifi (2007) stated,

Effective strategies for risk factors' reduction in relation to mental health cannot be gender-neutral, while the risks themselves are gender-specific, and women's status and life opportunities remain low worldwide. Low status is a potent mental health risk. . . . It should be a standard practice to disaggregate all epidemiological data by sex and age for all diseases and health conditions, allowing gender analysis of data and monitoring the sex-specific burden of disease over the lifetime. Besides documenting differences in prevalence rates of

mental disorders and other diseases, it is crucial to examine how women's and men's differences – such as their roles and responsibilities, their knowledge base, their position in society, their access and use of health resources – influence the vulnerability to mental disorders. There is also a need to strengthen women's access to and control over resources that promote and protect health through addressing gender-based barriers to utilise services. We should not forget the importance to integrate a gender approach to health in training primary care providers to identify and to treat mental illness. Linking gender sensitivity to training as well as performance appraisals assures that the issue is taken seriously and translated into practice. More attention should be given to identify factors that would facilitate coping with stress or distress and to design intervention programmes on the communal as well as the primary care level. (p. 389)

The risk factors discussed in this chapter may be interpreted within the scope that there are many gender differences inherent in problem gambling, although there is not a separate section focused on gender differences, as this would be redundant. However, this should not reduce the importance placed on the gender differences and the potential treatment implications inherent in gambling issues. A table summarizing the gender differences in this literature review has been included in Appendix D.

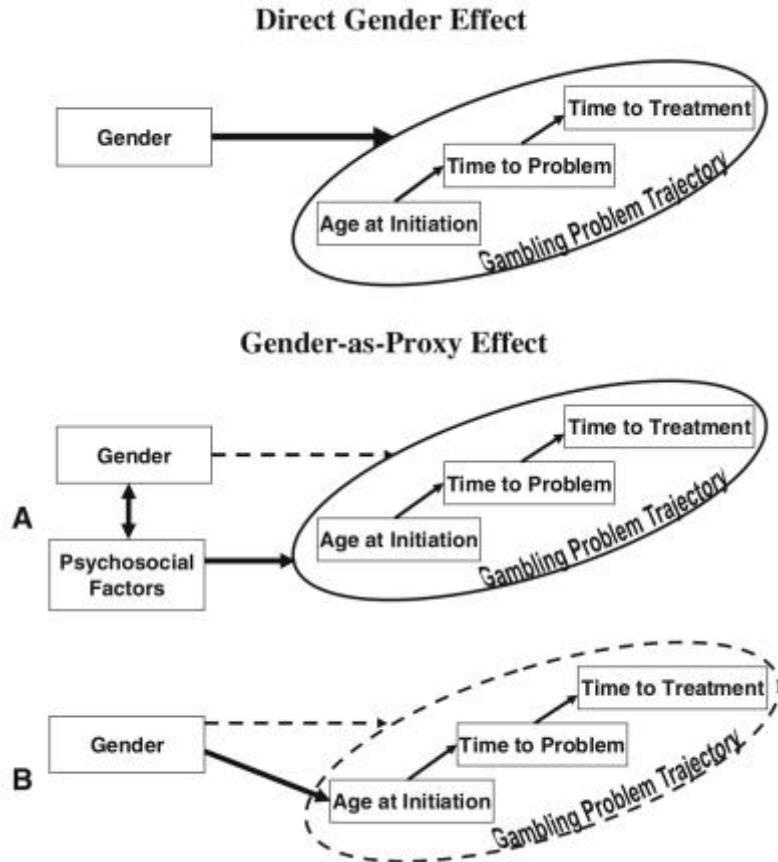


Figure 1. Direct gender effect and gender-as-proxy effect.

Note. Journal of Gambling Studies, The Proxy Effect: Gender and Gambling Problem Trajectories of Iowa Gambling Treatment Program Participants, 22, 2006, p. 224, Nelson, LaPlante, LaBrie, & Shaffer (© Springer Science+Business Media, Inc. 2006). With permission of Springer.

Type of gambling. Certain gambling games may be more addictive than others and lead to different levels of risk of becoming a PG. Online gambling has been shown to have a stronger link to becoming a PG than land-based gaming (Nordmyr et al., 2014). Similarly, Brazilian video poker players may have an increased risk of developing pathological gambling behaviours (Oliveira & Silva, 2001). VLTs have been said to accelerate the severity of problem gambling (LaPlante et al., 2006). For instance, 25% of those who played VLTs have been shown to be at risk or PGs already, while only 7% of the 16 million people buying lottery tickets ran the same risk (Marshall & Wynne, 2003).

In a recent study on the impact of jackpots on electronic gaming machines (e.g., VLTs), authors discovered that the intensity of gambling (i.e., speed, risk, and persistence) was increased when the participant was not shown the value of the jackpot (Donaldson, Langham, Rockloff, & Browne, 2015).

Regarding gender differences, Wenzel and Dahl (2009) discovered that WPGs have a narrow scope in comparison to male PGs, meaning they are less likely to prefer a wide range of gambling forms. Nordmyr et al. (2014) reported that more women (75.2%) than men (62.4%) are engaged in land-based gambling, while the inverse is true for online gambling. Females have been shown to prefer bingo, lotteries, and slot machines (i.e., games of chance), whereas men prefer casino games, blackjack and cards, and sports or track betting, which are considered games of skill (Hing & Breen, 2001; Grant & Kim, 2002; Wenzel & Dahl, 2009). Women have also been reported to be more likely to gamble in such a way that their time on gaming machines is maximized (Hing & Breen, 2001). In a more recent study, Echeburúa et al. (2011) concluded that both men and women overwhelmingly preferred slot machines, although females were more likely to become addicted to bingo (25.5% for females, 0% for males) and men to slot machines (92.3% for men and 66.7% for females).

While many authors have found that males and females differ in terms of gambling, LaPlante et al.'s (2006) particular study found that gender was not significantly associated with play patterns. However, the authors noted that gender provides distinctions that are important to note in gambling patterns, such as genetics, social norms and stereotypes, motivations for gambling, measures of impulsivity, and availability of money (LaPlante et al., 2006). In this vein, paid employment and younger

age predicted problem gambling in another study, although gender was not a predictive factor for gambling severity (Christensen, Dowling, Jackson, & Thomas, 2015). This is despite the fact that males have consistently been at a higher risk for problem gambling, and could be due to the fact that female gambling has been increasing (Christensen et al., 2015; Dowling, 2013). While I found the research to be mixed on the effect of gender and game preferences, knowing more about the motivations and approaches of gambling for men and women could enable harm reduction and treatment strategies to more effectively address these issues.

Gambling trajectory. Regarding how individuals progress to problematic gambling, men have been shown to have an earlier age of onset, whereas women have a tendency to telescope (Grant & Kim, 2002; LaPlante et al., 2006; Wenzel & Dahl, 2009). In this vein, one study found that females became addicted to gambling after 5.88 years on average, while men took 9.66 years (Echeburúa et al., 2011). Wenzel and Dahl (2009) amalgamated the study results from their literature review and concluded that women start gambling around the age of 30.0–37.5 years, whereas men are significantly younger when they begin gambling (21.9–28.3 years). As such, these researchers have suggested that the age difference may level out as the severity of the gambling disorder increases (Wenzel & Dahl, 2009).

Motivation for gambling. Women may be motivated to gamble due to feelings of loneliness and avoidance or use gambling as a way to relieve depressed affect or emotional distress, which is also known as escape gambling (Blanco et al., 2006; Echeburúa et al., 2011; Grant & Kim, 2002; Wenzel & Dahl, 2009). In contrast, men are more likely to gamble because of social pressure, to earn money, and due to thoughts

about winning, also considered action gambling (Echeburúa et al., 2011; Wenzel & Dahl, 2009).

Sociodemographic factors. Sociodemographic factors are briefly outlined in this section. These factors are important in the consideration of treatment and prevention strategies alongside gender (Dowling, 2013; Nelson et al., 2006), given that it may be important to consider targeted programs for certain groups (e.g., middle-aged women).

Age. Women typically have a later age of onset to problem gambling (i.e., middle aged), while men who are over 70 years of age have less of a chance of becoming a PG (Afifi et al., 2010a; Blanco et al., 2006; Echeburúa et al., 2011). Nordmyr et al. (2014) found that men between 50 and 64 years of age had a decreased risk of problems with gambling compared to those aged 15–29 years, although they reported no significant results associating age and problem gambling for women.

Relationship status. Research on marital and relationship status in PGs is mixed (Wenzel & Dahl, 2009). Recent research has suggested that pathological gamblers are more likely than their control group counterparts to be divorced (47.0% compared to 25.0%) and to live alone (35.0% versus 10.0%; Black et al., 2012). In another study comparing men and women, WPGs were more likely to be divorced (23.5% compared to 5.8% of their male counterparts) or widowed (13.7% compared to 3.8%), while males are reportedly much more likely to be single (51.9% compared to 15.7%; Echeburúa et al., 2011).

Income and education. WPGs may be more likely to have a lower income than their male counterparts (Afifi et al., 2010a; Echeburúa et al., 2011; Wenzel & Dahl, 2009). In one study, the low-income bracket contained 18.0% of females and only 7.7%

of males and the medium-low socioeconomic level had 24.0% of females and 7.7% of males (Echeburúa et al., 2011). Another study showed a similar pattern of results: 15.9% of WPGs made between \$0 to \$14,999, compared to 6.9 % of men (Afifi et al., 2010a). The inverse was true of PGs who made \$80,000 or more (13.1% of women and 25% of men; Afifi et al., 2010a).

In terms of education, results are mixed (Wenzel & Dahl, 2009). Afifi et al. (2010a) reported that 4.7% of WPGs achieved a university degree compared to 11.4% of male PGs; however, a later study found more females (12.0%) than males (7.7%) had completed college (Echeburúa et al., 2011).

Culture. Cultural differences may also be associated with becoming a PG and how one experiences gambling disorders. Aboriginal individuals living outside of reservation communities were shown by one study to be much more likely (18.0%) to become a PG than non-Aboriginal gamblers (6.0%; Marshall & Wynne, 2003). Cultural differences are also prevalent in the stigmatization of problem gambling. Dhillon et al. (2011) discovered that East Asian students had more stigmatizing attitudes towards gambling vignettes, when compared to Canadian students, particularly if the vignette described an East Asian PG. The level of vulnerability associated with becoming a PG may vary by culture, and there is a need to understand how culture contributes to gambling in order to tailor treatments accordingly (Raylu & Oei, 2004).

Comorbidity. Along with many sociodemographic factors associated with problem gambling, other addictions, mental health issues, and comorbidities are also highly correlated with gambling issues (Haw & Holdsworth, 2015; Holdsworth et al., 2012; Lorains et al., 2011; Wenzel & Dahl, 2009). These are discussed subsequently.

Psychological factors. The highest comorbid disorders in relation to problem and pathological gamblers included nicotine dependence, depression, anxiety, substance use, and personality disorders (Holdsworth et al., 2012; Lorains et al., 2011; Wenzel & Dahl, 2009). Echeburúa et al. (2011) found that 51.5% of their participants had a history of psychiatric illness and that more women (60.8%) than men (40.4%) showed this trend. Furthermore, female participants presented with more issues with anxiety, depressive symptoms, and self-esteem, while males had issues with substance abuse (particularly alcohol-related disorders) and sensation seeking (Echeburúa et al., 2011; Wenzel & Dahl, 2009).

Substance use. Researchers found some gender differences regarding comorbid substance use disorders (Blanco et al., 2006; Echeburúa et al., 2011). Males who have subclinical pathological gambling diagnoses have been shown to be more likely to smoke more cigarettes, drink heavily, and have diagnoses related to substance use disorders, whereas women within this diagnostic category were more likely to have psychological distress, and mood or anxiety disorders (Blanco et al., 2006; also see Echeburúa et al., 2011). Interestingly, Nordmyr et al. (2014) found that men who were psychologically distressed had an increased risk of becoming a PG and that women's chances of becoming a PG were significantly heightened if they also presented with alcohol-related issues.

Temporal sequencing. Temporal sequencing refers to the study of the relationship between comorbid disorders and ordering the disorders sequentially (i.e., which disorder had its onset first; Holdsworth et al., 2012). The temporal relationships have been reported to be largely dependent on individual characteristics

rather than an overall pattern (Holdsworth et al., 2012). A longitudinal study examining problem gambling in youth discovered that at-risk or problem gambling may predict future development of mental and substance use disorders, while drug use may predict the development of problem gambling (Afifi et al., 2016). This has implications for preventative strategies aimed at gambling, in the sense that such strategies could reduce the development of comorbid disorders.

Regarding gender, women reported that the age of onset for problem gambling occurred after the onset of another comorbid disorder, whereas males reported that problem gambling typically occurred first (Haw & Holdsworth, 2015). The authors offered several reasons for this difference, including the fact that women typically experience problem gambling later in life, allowing other disorders more time to develop first. Furthermore, given that females are typically motivated to engage in gambling as a way to avoid negative emotions, they may use gambling as a way to cope with preexisting disorders (Haw & Holdsworth, 2015). In order to provide integrated and tailored treatments, temporal sequencing can provide valuable information on the various pathways that determine whether and how a disorder develops. Furthermore, this supports the idea that early intervention during key periods of development may be helpful in preventing gambling and related disorders.

Internet dependence. Given that online gambling has been linked to problematic gambling (Nordmyr et al., 2014), Internet dependence is an important comorbidity to consider. One study found that individuals who have problems with gambling or a dependence upon the Internet reportedly had similar psychological issues (i.e., anxiety and loneliness, along with student stressors such as financial and interpersonal

difficulties), but noted no overlap between gambling and Internet dependence (Dowling & Brown, 2010).

Crime. At least one-third of forensic populations in a literature review met the diagnostic criteria for problem or pathological gambling (Williams et al., 2005), and Mishra et al. (2011) found a link between antisocial personality characteristics and all types of gambling among male students in their study. Somewhat related to criminality is the issue of money. Women are reported to be more likely to have written bad cheques as a result of pathological gambling, while men were more likely to have lost financial savings due to their gambling behaviours (Grant & Kim, 2002). One literature review posited that males who gamble are more likely to have criminal histories than WPGs (Wenzel & Dahl, 2009).

Alcohol Use Disorder

Prior to discussing the issue that this thesis proposes to address, it is important to briefly outline some facts on alcohol use disorders. This is due to the fact that this project compares a behavioural disorder (i.e., problem gambling) and a substance use disorder (i.e., alcohol) in a survey (I provide more detail on how the survey was constructed in Chapter 3: Methods, and a copy of the survey is available in Appendix C). Exploring the education that graduate students receive in regards to substance abuse provided a comparison between an established and heavily researched area, with one that has been less investigated.

Definition. According to the DSM-5 (American Psychiatric Association, 2013), alcohol-related disorders encompass many categories (e.g., alcohol-related disorders, alcohol use disorder, alcohol intoxication) all listed under “Substance-Related and

Addictive Disorders" (American Psychiatric Association, 2013, Section 2, para. 1). For the purposes of this brief section, I focus on alcohol use disorder. This is defined as alcohol use that is problematic and that leads to clinically significant distress, impairment, or both, as well as physical (e.g., withdrawal, cravings) and behavioural (e.g., spending a lot of time obtaining alcohol) symptoms (American Psychiatric Association, 2013).

Prevalence. The American Psychiatric Association (2013) has outlined the past-year prevalence of alcohol use disorder in the United States as highest in those who are 18–29 years of age (16.2%), decreasing in middle-aged populations, and being lowest in adults 65 years of age and older (1.5%), similar to the pattern of gambling in males (Afifi et al., 2010a; Blanco et al., 2006; Echeburúa et al., 2011; Nordmyr et al., 2014; Williams et al., 2012). The prevalence is highest in Native American and Alaskan Native populations (12.1%) and lowest in Asian Americans and Pacific Islanders (4.5%; American Psychiatric Association, 2013). Gender differences are particularly important when looking at substance use disorders, and one study found that males had a significantly higher lifetime prevalence of alcohol use disorders (19.6%) than females (10.3%; Lev-Ran, Le Strat, Imtiaz, Rehm, & Le Foll, 2013), similar to the pattern of lifetime prevalence rates of pathological gambling between the genders reported by Blanco et al. (2006).

Consequences. The American Psychiatric Association (2013) detailed several consequences associated with alcohol use disorder. Alcohol use disorder is often accompanied by unpleasant withdrawal symptoms (e.g., sleep problems and cravings) that occur after the intake of alcohol has been reduced, which can spur someone on to

continue ingesting alcohol in order to avoid these symptoms. Other consequences include deficits in performance at school, home, or at work, and placing oneself in danger (e.g., deciding to operate a motor vehicle or machinery after having consumed alcohol). Higher accident, violence, and criminal risks have been associated with alcohol use disorders, as well as adverse physical effects of drinking heavily and often (American Psychiatric Association, 2013). In this vein, repeated alcohol intoxication has been linked to a suppressed immune system, increased risk of developing certain cancers, and may also contribute to interpersonal problems (American Psychiatric Association, 2013).

Risk factors. Similar to most disorders, including gambling, certain factors may predispose individuals to developing an alcohol use disorder. Attitudes towards drinking, ways of coping with stress, availability of—and experience with—the substance, genetics, impulsivity and comorbidities all present risks to developing alcohol use disorder (American Psychiatric Association, 2013).

Gender differences. The American Psychiatric Association (2013) found that males tend to have higher rates of drinking disorders, which was also found to be true in gambling (Williams et al., 2012). Additionally, due to their biology (i.e., more fat, less water), females cannot metabolize alcohol as much as males, and as such develop higher blood alcohol levels when drinking (American Psychiatric Association, 2013).

Comorbidity. Similar to gambling, there are certain disorders that are highly comorbid with alcohol use. Conduct problems, anxiety, depression, bipolar, schizophrenia, and antisocial personality disorders have been linked with alcohol use disorder, and there is an increased risk of suicide in those suffering from this disorder (American Psychiatric Association, 2013). It should be noted that it is unclear whether

these comorbidities are caused by or are contributing factors to the development of the disorder (American Psychiatric Association, 2013).

Course of disorder. Typically, first exposure to alcohol occurs when one is in adolescence, the age of onset of an alcohol related disorder is often highest in the early to mid-20s, and the majority of those who develop alcohol-related disorders will do so by the time they are in their mid-30s (American Psychiatric Association, 2013). The development of this disorder during adolescence is often associated with a preexisting conduct disorder, and for those who develop problems in later years, body changes are often the result of an increased risk of intoxication (e.g., decreased body water), as well as other medical complications (American Psychiatric Association, 2013). The course of this disorder is often punctuated sporadically by remission and relapse; one must typically experience a crisis to become motivated to stop drinking, and abstinence is often followed by a period of controlled drinking, with a high likelihood that the use will escalate and problems will reemerge (American Psychiatric Association, 2013).

Statement of Research Problem

The previous sections aimed to highlight the gender differences inherent not only in the risk factors associated with problematic gambling, but also within the broader spectrum of gambling overall. The following sections outline the gaps in research and how it has contributed to the issue that this thesis addresses (i.e., the knowledge and training of Canadian counselling graduate students regarding PGs, and specifically, WPGs).

Lack of research on WPGs. The unique experience of women within addiction and mental health is an area that should be further explored, particularly given that

gender differences may translate into divergent treatment seeking behaviours (Afifi, 2007). There is a need to further understand WPGs, particularly the context in which their gambling behaviour began and how it has been sustained (Li, 2007).

While there is a plethora of research on problem gambling, a disproportionate amount of this research has been conducted on males, likely because many of the existing studies include women for gender comparison purposes, eliminating the ability to study the patterns for women only (Li, 2007). Moreover, there is little research on the social aspects and contexts of gambling in females, and as such, “gambling research, prevention, and treatment services have not responded adequately to the diversity and complexity of contemporary gambling culture, particularly to the changing demographic composition of the gambling population” (Li, 2007, p. 627).

The gender differences discussed thus far highlight the need to move away from the trend of generalizing findings from studies of men to the experiences of women, a mistake that has also affected research on treatment of female alcoholics (Wilke, 1994). As such, it is necessary to begin focusing research more exclusively on WPGs for maximum efficacy in treating this population. Li (2007) provided several suggestions for future research on PGs:

First, given the prevalence of gambling and problem gambling, contemporary gender studies need to give sufficient attention to women who gamble. In order to understand women’s ways of gambling, more qualitative inquiry into gambling addiction should be conducted by women and for women. Future gambling research should tailor its methods to the sensitivity of the topic and the vulnerability of female gamblers, addressing the lack of alternative paradigms and

methodologies in gender-specific gambling research (Hing and Breen 2001; Lesieur 1989; Mark and Lesieur 1992).

Second, because no woman is born a problem gambler, research on women's gambling-related problems should go beyond a sheer analysis of gamblers' minds. To avoid stereotypic labeling and victim blaming, female gamblers' experiences should be contextualized and understood in given socioeconomic, historical, cultural, family, and personal circumstances in which these experiences are produced. Such efforts can help uncover the multiple realities of female gambling, give voice to the voiceless, and raise public awareness and understanding about social and psychological constructions of female gambling addiction.

Third, given the increasing number of female excessive gamblers from disadvantaged backgrounds, more interdisciplinary gambling research should be designed and conducted to examine the interweaving of class, gender, race, and age in contemporary female gambling prevalence. Although gender-specific research cannot directly lift underprivileged female gamblers out of a world of suffering, it can inform better policy and practice to help prevent women from regulating their negative emotions through problem gambling. (p. 634)

Gambling treatment effectiveness and suggestions. A meta-analysis review found that psychological treatments for PGs typically yield positive outcomes (Pallesen et al., 2005). A literature review found that treatment organizations attract gamblers of both genders, although the authors stated that there is not enough evidence to make any formal conclusions on treatment forms and outcomes (Wenzel & Dahl, 2009). What is

considered effective treatment for gambling disorders overall is a topic of controversy for several reasons: (a) many models of treatment for gambling are derived from those originally designed for substance abuse, (b) a small number of people have participated in gambling research resulting in a less than representative or generalizable sample, and (c) research may only represent those who cannot recover on their own (i.e., the more severe cases; Nathan, n.d.). Furthermore, Crisp et al. (2000) provided several references suggesting that the lack of WPGs in treatment may be due to the fact that treatment programs typically do not account for needs that are important to women, such as child care or domestic and sexual assault treatment. They recommend community-based services that are not in residential settings, allowing WPGs with children more access to the treatment (Crisp et al., 2000; see also Wenzel & Dahl, 2009).

Authors have proposed several suggestions regarding treatment research for problem gambling overall. More studies with larger sample sizes would increase chances of significant findings and heterogeneity should be addressed within future studies as well (Toneatto & Millar, 2004). Pallesen et al. (2005) advocated for more control and standardization in future studies, and suggested that more focused treatments are needed for specific populations. Many individual factors and characteristics contribute to how one will respond to treatment, making it important to tailor treatments to different groups of PGs, rather than taking a blanket approach to all individuals presenting with gambling issues (Toneatto & Millar, 2004). For instance, Williams et al. (2005) suggested, given the high rates of problem gambling within incarcerated populations, screening practices and specialized treatment should be offered in correctional facilities. In this vein, research has typically not taken into account the fact that generalizations cannot be made

to female or adolescent gamblers based on research conducted on men (Nathan, n.d.).

Other researchers suggested that future gambling research should focus on issues that may affect treatment planning for WPGs, including focusing on the emotional needs of WPGs, potential comorbidities, and intensive early intervention practices (Wenzel & Dahl, 2009).

Gender and individual differences. Dowling (2013) posited that while there are not significant gender differences in response to gambling treatments, gender differences in problem gambling should be taken into consideration when determining a treatment plan. Despite this recommendation, treatment strategies have been largely based on male PGs (Crisp et al., 2000; Dowling, 2013). This may have implications for treatment outcomes (Dowling, 2013; Grant & Kim, 2002; Grant & Potenza, 2004), given that the gender gap is narrowing and more equal numbers of both genders are accessing gambling services than ever before (Dowling, 2013).

Dowling (2013) provided a thorough overview of gender differences in treatment and recovery, which are briefly summarized here and should be considered alongside the gender differences outlined earlier in this chapter. Treatment seeking is relatively higher in women, although women may be less likely to report a gambling issue than males (Dowling, 2013). Women have been found to be more guilt and shame prone than men, which could impact treatment seeking, reporting, and outcomes (Kushnir, Godinho, Hodgins, Hendershot, & Cunningham, 2015). Men and women may also differ in what they seek treatment for. In one study, men were more likely to seek legal and employment assistance and women were more likely to seek out a counsellor for family or interpersonal issues, although rates of attending Gamblers Anonymous were found to

be similar between the genders (Crisp et al., 2000).

Treatment implications. Gender, and other factors that may be a proxy to gender, should be a focus of future treatment research, and the message remains clear that individual PG differences drives the need for tailored treatment and prevention practices (Toneatto & Millar, 2004). For instance, prevention, screening, and early intervention strategies should be highlighted, particularly for females who are in the window of high risk (i.e., middle aged; Afifi et al., 2010a; Blanco et al., 2006; Nordmyr et al., 2014) or who may be highly motivated to gamble (e.g., depressed affect, experiencing domestic violence; Dowling, 2013; Haw & Holdsworth, 2015). Location and ease of access should also be a consideration in creating effective treatment interventions (Crisp et al., 2000; Dowling, 2013), as well as methods of treatment (e.g., complete abstinence versus controlled participation; Dowling, 2013). In general, counsellors should have a good understanding of the diversity within the realm of gambling disorders in order to provide effective treatments for individual clients (Grant & Kim, 2002; Grant & Potenza, 2004). In this vein, researchers have advocated increased healthcare practitioner awareness around PGs, particularly for vulnerable and at-risk populations, including women (Korn, 2000).

Specifically, counselling and therapeutic practices put into place for WPGs should result in a benefit to the affected individuals and their loved ones. As such, it is vital that research be conducted to evaluate counsellor knowledge of gender differences in assessment of, and effective treatments for, WPGs. Moreover, it is of extreme importance that the knowledge of practitioners be evaluated at the foundational level

(i.e., when future practitioners are being trained to work with clients) in order to decipher where the gaps in knowledge and training exist.

Current Knowledge and Training Regarding PGs

Practitioners. Unfortunately, little research has been conducted on the knowledge of counsellors already established in practice regarding PGs. Clinical psychologists working in the Veterans Healthcare Administration (VHA) reported little to no formal training or any experience with PGs, resulting in many of the participants feeling as though they were incompetent in working with this population and reporting that they desired further training (Drebing et al., 2001). Mello (2003) also examined VHA clinical psychologist training and experience with clients who present with problem gambling and confirmed that only 19 psychologists had experience with PGs and over half of them (55.0%) expressed interest in receiving additional training.

Another study sought to examine health care providers' awareness surrounding problem gambling and associated treatments (Christensen et al., 2001). While 96.0% of their participants reported having some sort of knowledge about problem gambling, only 30.0% reported having asked clients about problem gambling. Drebing et al. (2001) also cited an earlier study by Federman et al. (1998), in which the authors reported clinicians rarely identify a gambling issue until it is quite severe and that only 10.0% of 30 facilities screened for problematic gambling behaviours. The majority of information that Christensen et al.'s (2001) participants had on problem gambling was reported to be gained from media (85.0%) or professional journals (30.0%) and only 10.0% of the participants reported having been educated about problem gambling, indicating a

pressing need to begin informing health care workers of this disorder during their formal training and education.

One study identified the intervention needs for Asian PGs, revealing some trends, including an increase in help seeking from Asian mothers of young children (Tse et al., 2007). Tse et al. (2007) put forward recommendations based on the gaps they found within the health system of New Zealand, including more supports for this specific population. Consistent with this, more supports are needed, both for specific PG populations and for those who are working with this population.

Specific training manuals. Perhaps not surprisingly, I found very few standardized training manuals available for therapists working with PGs. There is a guide for practitioners working with people with gambling issues from diverse backgrounds designed specifically for those who work in Ontario (Ontario Resource Group on Gambling Ethnicity and Culture, 2010). There is a more in-depth document containing information on the cultural competence of practitioners, although it is not aimed specifically at treatments for PGs (Haarmans, Noh, & Munger, 2004). Another guidebook focused specifically on health service providers who work with female clients, although it did not deal specifically with gambling, but rather working with clients who have alcohol and drug issues (Addiction Research Foundation, 1996).

Luckily, there are some books that focus specifically on problem gambling. One is a self-regulation manual for therapists who work with families, as well as individuals affected by problem gambling, titled *Counseling Problem Gamblers* (Ciarrocchi, 2001), and the other is a *Clinician's Guide to Working with Problem Gamblers* (Bowden-Jones & George, 2015). Once again, it is likely that the research has been generalized to

females based on male results. In more promising news, Karter's (2014) book, *Working With Women's Groups for Problem Gambling*, deals directly with women's groups for problem gambling, although, to my knowledge, this is the only one available thus far.

The lack of current training manuals for psychologists dealing specifically with WPGs suggests an urgent need for increased knowledge and training, particularly for those about to become practitioners (i.e., graduate students in counselling programs; Drebing et al., 2001). The commencement point for analyzing the knowledge that practitioners have in regards to PGs is to consider what is being taught to graduate students about problem gambling issues and treatment implications.

Counselling psychology graduate students. In terms of graduate student knowledge of problem gambling, I found even less data available. Drebing et al. (2001) hypothesized that newer psychology graduates in their study would have an increased amount of formal training related to PGs, although they did not report a significantly higher amount of training in problem gambling (Drebing et al., 2001). Moreover, Christensen et al. (2001) found that information related to PGs is rarely taught in schools.

Additional. A few more studies should be mentioned, as they relate to the overall knowledge of problematic gambling. Derevensky and Gupta (2004) examined the current information available regarding adolescent PGs, and another study sought to increase knowledge of problem gambling among students in 7th and 8th grade (Ferland, Ladouceur, & Vitaro, 2002). In this thesis, I deal specifically with knowledge of graduate students regarding adult PGs; thus, I do not discuss these papers further. However, it is important to be aware that problematic gambling can begin at a young age, further highlighting the need for early intervention and prevention practices. Future

research should consider how differences between men and women may contribute to the development of problem gambling at various maturation stages.

Knowledge and Training Gap

The current training students receive to become counsellors or psychologists in Canada vary depending on provincial legislation regarding therapists, although typically requirements involve at minimum an undergraduate degree in a related field and, more typically, a master's or doctorate degree (College of Alberta Psychologists, 2015). Usually, in graduate counselling psychology programs, students are exposed to practicums in which they conduct therapy with clients directly, in addition to general counselling classes.

The overall lack of gambling training and knowledge for both current (i.e., those already practicing in the field of counselling psychology) and future (i.e., graduate students in counselling psychology programs) practitioners suggests a need to increase education in this area of research. As it stands, there are still several gaps in knowledge regarding PGs in the areas of assessments and screening as well as psychological and biological understanding of problem gambling (Toneatto & Millar, 2004). Highlighting gaps in knowledge in graduate student education and focusing the lens on WPGs enabled me to concentrate on a salient area of research that needed to be conducted in order to better serve a deserving and understudied population.

Current Study

Problematic gambling has many consequences associated with it and there are several factors associated with one's propensity to develop issues with gambling, including gender. There is limited knowledge of the unique experience of WPGs and on

the effectiveness of treatment options in comparison to male PGs. In addition, I found very little research on the current knowledge of present and future practitioners who may work with PGs.

As such, the purpose of this thesis was to determine how much knowledge and training current graduate students in Canadian counselling psychology programs have in regards to problematic gambling, specifically for WPGs. I intended to add to the small amount of research that has, thus far, has been conducted within the realm of practitioner knowledge of gambling disorders. In addition, this thesis contributes to the research conducted in the field of addiction, mental health, and counselling, and more precisely, in the treatment of gambling disorders. Furthermore, this research has the added benefit of shedding light on potential treatment barriers and informing policy considerations or initiatives. This may impact educational institutions, governmental organizations, training facilities, and psychologist associations that are interested in this field. Perhaps most importantly, my intent in conducting this study was to increase awareness and research in order to have a positive effect on WPGs.

Chapter 3: Methods

There is an essential need to increase the amount of knowledge available to future practitioners (i.e., graduate students in Canadian counselling psychology programs) in order to improve treatment practices for WPGs. The aim and purpose of this thesis was to determine graduate students' existing knowledge and training gaps relating to WPGs through using an online survey. The methods of the project have been detailed within this chapter.

Research Design

Creswell (2012) specified eight steps for conducting quality survey research, which is how this chapter has been organized. The first step consists of deciding whether or not a survey is the best design for one's study. This thesis collected quantitative data in order to answer the RQs; thus, a cross-sectional quantitative survey research design seemed most appropriate (Creswell, 2012).

Research Questions

Both RQs and hypotheses are acceptable for survey research designs, though RQs were more fitting given that this survey was the first of its kind. It may be necessary for replications of this survey study to be conducted or for additional tools measuring this construct to be developed before hypotheses are formulated. Creswell's (2012) second step in conducting survey research consists of determining the RQs, provided below:

RQ1: What is the demographic profile of survey respondents?

RQ2: What knowledge and training is provided to graduate students in recognized Canadian counselling psychology graduate programs regarding

addiction, specifically knowledge and training in regards to gambling and alcohol use disorders?

- RQ3: What knowledge and training is provided to graduate students in recognized Canadian counselling psychology graduate programs in regards to gender differences in gambling disorders?
- RQ4: Based on education and training thus far, what is the current level of comfort, competence, and preparedness that current graduate students in recognized Canadian counselling psychology graduate programs report in relation to working with clients, particularly female clients, presenting with gambling-related problems?
- RQ5: What are the current levels of willingness and interest in gaining more training and knowledge regarding PGs and WPGs?

Participants and Sampling

Creswell's (2012) third step consists of identifying the population, sampling frame, and sample. These have been outlined subsequently.

Participants and eligibility criteria. Originally, my aim was to recruit 250 survey participants in order to generalize the survey sample to a larger population, maintain sufficient statistical power, and retain the ability to remove participants who do not fully complete the survey. I arrived at this estimated figure through speaking with my thesis committee, Drs. Noëlla Piquette, James Sanders, and Darren Christensen. This estimation was based on an initial evaluation of enrolment numbers in Canadian counselling psychology graduate programs. I collected many current or most recently available enrolment numbers from counselling psychology and related programs

throughout Canada in order to estimate how many students are enrolled per province and per school (Table 1). Overall, the numbers suggested the current enrolment of students in Canadian counselling psychology graduate programs is currently 2,411; thus, 250 survey respondents would comprise approximately 10.4% of the total population being studied.

Table 1

Most Recently Available Enrolment Numbers in Canadian Counselling Psychology-Related Programs

Province or Territory	Schools Contacted	No. of Students Enrolled*	No. of Schools**	Enrolment Data Missing from Schools
Alberta	<ul style="list-style-type: none"> • University of Alberta • St. Stephen's College • University of Lethbridge • University of Calgary • Athabasca University • City University (Calgary) • City University (Edmonton) 	507	7	<ul style="list-style-type: none"> • Athabasca University
British Columbia	<ul style="list-style-type: none"> • Trinity Western University • University of Victoria • Simon Fraser University • University of British Columbia (Vancouver) • Adler Professional School of Professional Psychology (Vancouver campus) • City University (Vancouver) • City University 	431	10	<ul style="list-style-type: none"> • Adler Professional School of Professional Psychology (Vancouver campus) • City University (Vancouver) • City University (Victoria) • Thompson Rivers University

Province or Territory	Schools Contacted	No. of Students Enrolled*	No. of Schools**	Enrolment Data Missing from Schools
	(Victoria)			
	<ul style="list-style-type: none"> • Gonzaga University • Thompson Rivers University • University of Northern British Columbia 			<ul style="list-style-type: none"> • University of Northern British Columbia
Manitoba	<ul style="list-style-type: none"> • Université de Saint-Boniface • Brandon University • University of Manitoba • University of Winnipeg 	238	4	0
New Brunswick	<ul style="list-style-type: none"> • University of Moncton • University of New Brunswick (Fredericton) • University of New Brunswick (Saint John) 	80	3	1
Newfoundland and Labrador	<ul style="list-style-type: none"> • Memorial University of Newfoundland 	132	1	0
Nova Scotia	<ul style="list-style-type: none"> • Acadia University 	114	1	0
PEI		0	0	0
Ontario	<ul style="list-style-type: none"> • Western University • University of Toronto • Saint Paul University • University of Guelph • University of Ottawa • Wilfrid Laurier University • Tyndale Seminary 	210	7	<ul style="list-style-type: none"> • Saint Paul University • University of Ottawa • Tyndale Seminary

Province or Territory	Schools Contacted	No. of Students Enrolled*	No. of Schools**	Enrolment Data Missing from Schools
Québec	<ul style="list-style-type: none"> • McGill University • Laval • Université du Québec à Trois-Rivières • University of Québec in Montreal • University of Québec in Rimouski • University of Montreal • University of Sherbrooke • Concordia • Université du Québec en Abitibi-Témiscamingue • Université du Québec en Outaouais 	596	10	<ul style="list-style-type: none"> • University of Québec in Montreal • University of Québec in Rimouski • University of Montreal • Concordia • Université du Québec en Abitibi-Témiscamingue • Université du Québec en Outaouais
Saskatchewan	<ul style="list-style-type: none"> • University of Regina • University of Saskatchewan • Briercrest College and Seminary Marriage and Family Counselling 	103	3	<ul style="list-style-type: none"> • University of Saskatchewan • Briercrest College and Seminary Marriage and Family Counselling
NWT		0	0	0
Nunavut		0	0	0
Yukon		0	0	0
Total		2,411	46	18

Note. * Number of students enrolled in counselling psychology programs across the province. ** Total No. of Schools Containing the Eligible Programs. PEI = Prince Edward Island; NWT = North West Territories.

Participant eligibility criteria allowed currently enrolled students in recognized graduate counselling programs at Canadian universities, and who were over the age of 18, to take part in the survey. I restricted participation in order to ensure a widely representational pool of future counsellors was surveyed.

I set limitations on participation for several reasons. This study aimed to identify gaps in knowledge and training for future psychologists or counsellors, which are likely represented by graduate students more so than undergraduates. Future practitioners typically receive formal training in regards to specific disorders and populations (e.g., PGs) through graduate-level programs, and there may be licensing requirements that could standardize the process. Limiting the participant pool to graduate students provided a more representational picture of the knowledge of students who intend to work with populations such as PGs. This strategy also eliminated those who likely did not desire to go into practice in a counselling setting.

I chose to limit the participant pool to students attending Canadian universities for several reasons. First, I intended for the outcomes of this thesis to inform Canadian research and policies; thus, it was logical to limit the findings to the relevant area in which the research would be utilized and applied. Second, the aim of the study was to identify gaps in knowledge and training of future counsellors within Canada. Limiting the study participants to Canada restricted potential confounding factors associated with different curriculum standards in other countries. International students were able to participate provided they were enrolled in a recognized graduate-level counselling program in Canada. Moreover, using only students attending Canadian schools enabled me to identify areas of strengths and weakness of knowledge as it related to counsellors

who will be affiliated with Canadian registrations and colleges in order to practice.

Sampling strategy. Given the quantitative nature of the survey, a large sample size was necessary for statistical analysis purposes. I used online dissemination and recruitment in order to guarantee a large number of participants were contacted and to ensure a representative sample.

The sampling frame included any and all graduate students in recognized Canadian counselling psychology programs (e.g., counselling psychology, addictions, neuroscience – counselling, psychiatry – counselling, etc.). A large target population generally reduces sampling and coverage error as much as possible and ensures the study sample is representative of the population (Creswell, 2012; Streiner & Norman, 2008). The study sample constituted any graduate students who responded to the survey.

Survey Design

In Creswell's (2012) fourth step, one needs to determine the survey design and data collection methods, and in the fifth step, a design instrument must be located or developed. These steps have been combined for a succinct description of the development and administration of the survey.

Designing a survey can be done by modifying old measurement instruments or by formulating a new one by researching the construct and examining what others have done in the past (Creswell, 2012; Streiner & Norman, 2008). During the literature review, I discovered existing surveys that partially addressed the RQs asked in this thesis project. It is important to note that I based the survey in this thesis upon the works of Drebing et al. (2001) and Christensen et al. (2001), which I have detailed in the sections that follow. Although Mello (2003) also similarly examined clinical psychologists' training and

practice in problem gambling, I did not use Mello's survey, as it was unavailable to me at the time of survey construction.

Drebing et al.'s (2001) hypotheses. Drebing et al. (2001) surveyed clinicians to determine their level of training, experience, and competence for working with PGs and sought to test several hypotheses:

1. Most practitioners have not received much training regarding problem gambling, have hardly any experience working with PGS, and do not see themselves as being competent to assess or treat PGs.
2. The majority of clinical psychologists have not referred gambling clients, nor do they know of someone they can refer PGs to.
3. The subgroup of psychologists who provide services to PGs do so as a regular part of their clinical practice and have received more training.
4. Training is positively correlated with experience, practice, and competence in working with PGs.
5. Due to more awareness around PGs, recent graduates will have more experience and competence.
6. Most practitioners are willing to receive more training in treating PGs.

Drebing et al.'s (2001) survey. Drebing et al. (2001) constructed items that were reviewed by three clinical psychologists and two psychiatrists, all of whom had experience in working with people who had gambling problems. The initial questionnaire was developed based on their expertise and then retested on 20 mental health professionals, whose feedback was then incorporated into the final result, which consisted of 50 items presented in four sections (Drebing et al., 2001).

The first section of Drebing et al.'s (2001) survey consisted of determining background information (e.g., age, gender, income, etc.). The second section consisted of questions that asked about respondents' formal education, training, and other educational activities that related to problem gambling (e.g., graduate, internship, journal articles read, etc.). The authors then asked similar questions related to substance abuse (Drebing et al., 2001). The third section contained questions aimed at determining prior clinical experience with PGs (e.g., how many patients were seen in graduate training who have gambling problems, or evaluated, treated or referred for problematic gambling behaviours, etc.). The fourth section of Drebing et al.'s survey consisted of Likert scales related to current clinical practice with PGs (e.g., to what degree treating or evaluating for pathological gambling is part of one's current practice); how competent the practitioner feels to evaluate, treat, or refer clients for pathological gambling; practitioner's level of willingness to receive more training regarding working with PGs, and so forth.

Drebing et al.'s (2001) analyses. Drebing et al. (2001) summarized the first two hypotheses using descriptive statistics; the third hypothesis was tested by first defining the subgroup of practitioners considered specialists (i.e., any psychologist who had treated more than 10 patients, reported that this was part of their current practice, and determined they were competent to assess and treat PGs). This subgroup was then compared to the rest of the sample (e.g., variables that described demographic and current practice variables), and the correlations tested with T-tests using the Bonferroni correction (Drebing et al., 2001). Drebing et al. (2001) correlated training with the number of patients seen, current practices, and competency evaluations to test Hypothesis

4. They tested correlations with T-tests using the Bonferroni correction (Drebings et al., 2001). For Hypothesis 5, Drebings et al. calculated correlations between training, current practices, and competence measures. Descriptive statistics summarizing the interest for further training were used to address Hypothesis 6 (Drebings et al., 2001).

Drebings et al. (2001) acknowledged that self-reported competence might raise issues of validity, although no data were provided regarding the scale's reliability or validity. Nevertheless, the authors had a rigorous method of pilot testing the survey among relevant professionals, although no details regarding professional feedback were included in the article (Drebings et al., 2001).

Christensen et al.'s (2001) hypotheses. Christensen et al. (2001) conducted an exploratory survey. They sought to determine health care providers' level of awareness regarding problem gambling and the frequency at which these providers would assess and treat problem gambling (Christensen et al., 2001).

Christensen et al.'s (2001) survey. Christensen et al.'s (2001) survey contained demographic questions (e.g., gender, profession, and practice setting). Their survey also contained questions related to gambling (e.g., had participants read or heard about problematic gambling, whether they believed that problem gambling exists, how many of their clients described a gambling-related problem, etc.; Christensen et al., 2001).

Christensen et al.'s (2001) analyses. Christensen et al. (2001) calculated a mean and standard deviation for each of the demographic questions. In terms of where gambling information was obtained, the number and percentage for the 172 instances of sources was calculated. Given some issues with discrepancies (i.e., numbers vs. percentage), Christensen et al. treated the gambling Questions 4–7 as dichotomous

(i.e., yes or no). They calculated chi-square and *p* values to determine which group of health care practitioners were more likely to ask about and identify problems with gambling (Christensen et al., 2001). Variance was also reported, along with *p* values (Christensen et al., 2001).

The authors acknowledged that the survey could not be generalized to a larger population given the sample (Christensen et al., 2001). Moreover, Christensen et al. (2001) recognized that validity and reliability issues might arise given that respondent identity was not confirmed (e.g., whether one was a nurse or a social worker). No more information was available on additional reliability and validity issues of the survey (Christensen et al., 2001).

Current survey. The current survey is provided in Appendix C. Each survey section was designed to answer the corresponding RQ number (e.g., section 1 of the survey answered RQ1, section 2 answered RQ2, and so on). The first survey section collected demographic information and included very few sensitive questions to minimize concern that respondents would over or underrepresent their views and bias the results (Creswell, 2012).

The second section sought to determine how much information graduate students are provided regarding addiction-related problems, specifically in gambling and alcohol use disorders. The comparison between substance abuse and behavioural disorders was made on the basis of two points. First, a previous survey also compared knowledge regarding these similar, yet distinct, fields of study (Drebing et al., 2001). Second, further study of behavioural addictions is warranted in order to even out the levels of knowledge held for behavioural and substance abuse disorders (Grant, Potenza, et al.,

2010); thus, alcohol use disorders were used as somewhat of a baseline, given their more heavily researched status.

The third section of the survey sought to determine how much information students have regarding gender differences in gambling-related problems. Initially, gambling and alcohol use were to be compared in this section as well; however, after discussion with the committee members, I determined that this would make the survey much longer than necessary, potentially increasing rates of attrition (Creswell, 2012). Given that the main focus of this thesis is gender and gambling, this was considered an acceptable modification.

The fourth section focused on respondents' comfort, competence, and preparedness levels to work with clients presenting with gambling-related problems, particularly WPGs. Respondents were also asked whether they felt they have been effectively educated and trained to deal with PGs, particularly WPGs.

Finally, the fifth section asked survey respondents to rate their levels of interest and willingness to gain more knowledge regarding PGs, specifically WPGs. Some questions in the fifth section of the survey may be construed as sensitive (i.e., asking someone's willingness to learn more about a population). This issue was mitigated in two ways. First, I was sure to pose these questions after the respondents had become accustomed to the survey by answering more neutral questions. In addition, I utilized Likert scales in an effort to make respondents feel more comfortable in answering, knowing that the parameters for responses had been set (Creswell, 2012).

I considered several other factors in the development of the survey questions. Many of the questions were closed to allow for ease of answering, given that these

questions were chosen to have mutually exclusive options. Open questions were indicated as such throughout the survey, and any question that provided an option for the respondent to expand upon his or her answer was also considered an open question. Efforts were made to reduce vagueness in the wording (i.e., minimally worded and did not contain negatives or jargon unless necessary), and only one question per survey item was asked. Response categories were designed to ensure no overlap between options, options were balanced, branching was used when appropriate, and response options matched the questions being asked (Creswell, 2012).

Another step I took to ensure minimal error was through delivering the survey online, thus eliminating data-entry errors, as each respondent entered his or her own data. Surveys allow for short administration times and the reduction of respondent fatigue, economical data collection, and the ability to canvas geographically distant regions anonymously and without bias (Streiner & Norman, 2008). Streiner and Norman (2008) suggested, when implementing a computer-based survey, researchers should allow participants to interrupt the testing and return to their original spot without losing data. I attempted to facilitate this as much as possible by telling participants how many questions there were in the survey description, utilizing a completion percentage bar on each survey page, and allowing participants to navigate back and forth through the questions before submitting the survey.

Furthermore, Streiner and Norman (2008) suggested participants should have the option to skip questions or should be given an explicit explanation if they must answer all questions. This may have been a limitation of the current survey, given that respondents were required to answer all of the questions (except for three) and could not move

forward without doing so. However, this was explained in the survey, as well as the fact that only fully completed surveys would be considered in the analysis.

Survey Administration

Creswell's (2012) sixth step is that the instrument must be administered. This step was completed after I had received ethical approval to conduct the project.

Ethics approval. Along with the ethics approval from the Faculty of Education Human Subject Committee at the University of Lethbridge, other schools also required that their ethics boards approve the study. I sought and received approval from the University of Calgary Conjoint Faculties Research Ethics Board, University of Regina (REB #: 2015-147), and Adler University Research Ethics Boards.

Contacting schools. I found relevant Canadian universities and programs online (specifically, counselling psychology graduate programs). I then sought permission to disseminate the emailed survey link to the applicable graduate students. Each department received an email explaining the survey, as well as an email that administrators could forward to their graduate students (Appendices A and B). A brief summary of the research was also attached to the email (Appendix E). Reminder emails were sent out as well (Appendix F) to avoid errors associated with nonresponse as much as possible (Creswell, 2012). Table 2 details the dates that I contacted the schools, as well as the resulting responses I received from schools.

Table 2

Dates Schools Were Contacted Regarding the Survey and Any Follow-Up Contact That Occurred

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
Acadia University	Yes, November 6, 2015	Yes, November 13, 2015	No	4
Adler Professional School of Professional Psychology (Vancouver campus)	Yes, September 16, 2015; followed up on October 30, 2015, after ethics approval	Unknown	Yes, December 1, 2015	0
Athabasca University	Yes, September 5, 2015	Yes, September 8, 2015	Yes, October 30, 2015	2
Brandon University	Yes, September 15, 2015	Yes, September 15, 2015	Yes, October 30, 2015	1
Briercrest College and Seminary Marriage and Family Counselling	Yes, August 25, 2015 and September 25, 2015; followed up on November 6, 2015	No	No	No response from department
Cape Breton University	Yes, November 6, 2015	No	No	No response from department

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
City University (Calgary)	Yes, September 5, 2015	No	Followed up on September 25, 2015, due to no response	No response from department
City University (Edmonton)	Yes, September 5, 2015	No	Followed up on September 25, 2015, due to no response	No response from department
City University (Vancouver)	Yes, September 5, 2015	No	Followed up on September 25, 2015, due to no response	No response from department
City University (Victoria)	Yes, September 5, 2015	No	Followed up on September 25, 2015, due to no response	No response from department
Concordia	Yes, September 6, 2015; followed up on September 25, 2015	Yes, October 13, 2015	Yes, November 11, 2015	6
Gonzaga University	Yes, September 5, 2015; followed up on September 25, 2015	No	No	Declined. Get too many requests for students to participate in research

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
McGill University	Yes, September 30, 2015	Yes, date unknown	Yes, October 30, 2015	8
Memorial University of Newfoundland	Yes, September 5, 2015	Yes, September 9, 2015	Yes, October 30, 2015	6
Saint Paul University	Yes, September 5, 2015; followed up on September 25, 2015, and on October 30, 2015	No	No	0
Simon Fraser University	Yes, September 5, 2015; followed up on September 25, 2015	Yes, date unknown	Yes, October 30, 2015	0
St. Stephen's College (affiliated with University of Alberta)	Yes, September 29, 2015	No	Kept option open should they decide to forward the email	Declined, because of a very small student body in our Master of Psychotherapy and the Art Therapy Specialization. The subject of the survey is not included.
Thompson Rivers University	Yes, September 9, 2015	Unknown	Yes, October 20, 2015	0

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
Trinity Western University	Yes, September 5, 2015; followed up on September 25, 2015, for the MA (Marriage and Family Therapy program)	Yes, September 11, 2015, for the MA Counselling Psychology program	Yes, October 20, 2015	4 (MA Counselling Psychology program)
Tyndale Seminary	Yes, September 15, 2015	Yes, date unknown	Yes, October 30, 2015	13
Université de Saint-Boniface	Yes, November 6, 2015	No	No	No response from program
Université du Québec à Trois-Rivières	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program
Université du Québec en Abitibi-Témiscamingue	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
Université du Québec en Outaouais	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program
University of Alberta	Yes, September 9, 2015	Yes, September 10, 2015	Yes, October 30, 2015	8
University of British Columbia (Vancouver)	Yes, October 30, 2015; followed up on November 3, 2015	Yes, November 3, 2015	Yes, December 1, 2015	5
University of Calgary	Yes, November 13, 2015	Yes, date unknown	N/A was unable to send a reminder email, given the way it was disseminated	14
University of Guelph	Yes, September 9, 2015	No	No	Declined. Students are not in a counselling psychology program, nor is their program related to the psychology department.

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
University of Lethbridge	Yes, September 5, 2015; followed up on September 11, 2015, for Master of Counselling program	Yes, date unknown	Yes, October 30, 2015	13
University of Manitoba	Yes, September 16, 2015	Yes, September 23, 2015	Yes, November 11, 2015	2
University of Moncton	No	No	No	1
University of Montreal	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program
University of New Brunswick (Saint John)	Yes, September 11, 2015; followed up on September 25, 2015, and November 6, 2015	No	No	Declined. They do not have Education grad programs on campus, Fredericton campus does.
University of New Brunswick (Fredericton)	Yes, September 29, 2015	Yes, date unknown	Yes, October 30, 2015	5

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
University of Northern British Columbia	Yes, September 5, 2015	No	No	Declined based on PATRIOT Act
University of Ottawa	Yes, September 16, 2015	Unknown	Yes, October 30, 2015	0
University of Quebec in Montreal	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program
University of Quebec in Rimouski	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program
University of Regina	Yes, September 27, 2015	Unknown	Yes, October 30, 2015	2
University of Saskatchewan	Yes, September 30, 2015 Darren Christensen followed up on November 25, 2015	Unknown	Yes, October 30, 2015; also called on December 4, 2015, and left a voicemail due to lack of survey responses	0

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
University of Sherbrooke	Yes, November 6, 2015, to inquire whether their programs included a counselling component	No	No	No response from program
University of Toronto	Yes, September 30, 2015	Unknown	Yes, October 30, 2015; also called on December 4, 2015, and left a voicemail due to lack of survey responses	6
University of Victoria	Yes, September 5, 2015; followed up on September 25, 2015 (MA and MEd Counselling Psychology programs) Yes, November 15, 2015 (Indigenous Communities Counselling Psychology)	Yes, September 28, 2015 (MA and MEd Counselling Psychology programs) Yes, November 19, 2015 (Indigenous Communities Counselling Psychology)	Yes, October 30, 2015 (MA and MEd Counselling Psychology programs)	3

School	Department Contacted?	Student Email Forwarded?	Reminder Email Sent?	Response
University of Winnipeg	Yes, October 16, 2015	Unknown	Yes, November 11, 2015	0
Western University	Yes, September 6, 2015; followed up on September 25, 2015	Unknown	Yes, October 30, 2015	0
Wilfrid Laurier University	Yes, September 5, 2015	Yes, date unknown	Yes, October 30, 2015	1
Yorkville University	Yes, November 13, 2015	No	No	No response from program

Note. MA = Master of Arts degree; MEd = Master of Education degree.

Administration. The survey was administered online using the SurveyMonkey® (2016) survey tool. Following a full description of the study, the survey provided a page titled “Consent Form,” explaining that participants were giving their consent by proceeding past that page to the actual survey. I have included copies of the study description, consent form, and survey in Appendix C. As the principal investigator, only I had access to the online survey and the responses.

Data collection. Data collection occurred on the Internet through SurveyMonkey® (2016) over the span of 5 months (September 2015 to January 2016). Once the survey had closed, I exported the survey response data from SurveyMonkey® (2016) into a Microsoft Excel spreadsheet as well as an SPSS file.

Data Analysis

Reliability. Reliability determines whether the survey instrument measures a construct in a reproducible fashion (e.g., should the survey be administered to people at different times or in different formats, similar results would occur with each administration; Streiner & Norman, 2008). Inviting all eligible schools to participate, along with exclusion criteria, ensured reliability by increasing the representativeness of the sample. The participation invitation letters and the survey itself (Appendices B and C) intended to increase reliability by ensuring that the survey responses would represent differences in knowledge and training for people who may work with WPGs.

Reliability scores were calculated using an internal consistency coefficient analysis (i.e., Cronbach's alpha, α ; Streiner & Norman, 2008) in SPSS and were conducted on various subscales, which were chosen based on the construct they likely measured (e.g., willingness to learn more about PGs, competence in working with PGs, etc.).

Validity. A survey's validity determines whether one can make inferences about the RQs based on the data that the survey respondents provided, or in other words, whether the study is measuring or gathering data on what it is supposed to (Streiner & Norman, 2008). Validity was increased by several methods, including face validity, content validity, construct validation, and criterion validation.

Face validity. Face validity indicates whether an instrument is measuring what it says it is measuring (Streiner & Norman, 2008). Survey items were selected to be representative of the constructs being measured by the investigation and were also consistent with the research title, purpose, participant invitation email, and with the

empirical information that was discovered. Face validity cannot be measured statistically and is not discussed in the results.

Content validity. Content validity judges whether the survey adequately addresses all relevant domains of the construct being measured, which ensures that inferences can be made about the results in a variety of conditions (Streiner & Norman, 2008). The survey was constructed with the aid of research and by basing the survey off of two previous measurement tools (Christensen et al., 2001; Drebing et al., 2001). Consulting experts (i.e., validity by assumption) in the field, such as my thesis committee members and the various ethics review boards who approved the study, ensured this (Streiner & Norman, 2008). Item selection was conducted to be representative of all of the possible items in the domain of graduate student knowledge and training about PGs and WPGs, increasing content coverage. In this case, the domains are represented by the RQs. This type of validity is typically assessed by expert judgment rather than statistically.

Construct validation. Construct validation refers to the use of theory in the development of surveys, including researching relevant theoretical constructs (Chapter 2), developing a scale (Chapter 3), and testing how the scale or survey performs in relation to the theory (Chapter 4; Streiner & Norman, 2008). Based on the fact that there is very little available research on gender difference considerations in treatments for PGs, is it likely that the survey results reflect a similar trend (e.g., limited training or information available).

Criterion validation. Criterion validation determines how respondents will perform on different scales that measure the same construct. However, this was the first

survey to measure this particular construct, so there were no external criterion measures or “gold standards” by which to compare this survey (Streiner & Norman, 2008). Nevertheless, the surveys measuring practitioner knowledge (Christensen et al., 2001; Drebing et al., 2001), upon which this survey was based, were used in the development of this survey, so partial criterion may be implied, given that many of the questions were similar. There were no other acceptable ways to obtain measures of criterion validation. Further, concurrent validity was not possible to measure, as only one measurement examining this construct exists. Predictive validity tests may be possible later on (e.g., competence could be determined by administering this survey with the caveat that students who take it also agree to complete it once they are practitioners in the field of gambling).

Completion and response rates. Creswell’s (2012) seventh step specifies that that the data be analyzed, beginning with identifying the response rate. I determined the response rate by dividing the number of people who returned the survey by an approximate number of those who received it (based upon the enrolment numbers gathered prior to the survey being disseminated; Table 1 in Chapter 3). Completion rate was determined by dividing the number of people who began the survey with the number of those who fully completed the survey.

Survey results. The final step in conducting research includes reporting the results, describing the most salient and important findings, and evaluating the survey (Creswell, 2012). I analyzed survey response data to identify any trends and to answer the RQs as best as possible. Tables and figures are used to display the essential features of the data in Chapter 4.

For questions that contained Likert scales, I averaged answers among respondents. Furthermore, chi-square tests of independence were conducted on the responses to survey questions associated with RQ4 and RQ5. Likert scale data were recoded so that response options indicating positive (e.g., extremely and somewhat comfortable, competent, willing, etc.) and negative responses (e.g., extremely and somewhat uncomfortable, incompetent, unwilling, etc.) were combined into two variables: positive and negative. Neutral response options were not included. These analyses sought to determine whether there were significant differences between positive and negative responses when comparing clients and female clients (i.e., will responses be equally distributed across client type and response type?). It should be noted that chi-square analyses were based on cases with responses to both questions (i.e., the question regarding clients and the corresponding question regarding female clients were both answered); thus, the number of cases in the analyses (N) will be lower than the variable frequencies as some survey respondents did not respond to both questions.

Additional Analyses

Correlation analyses were conducted posthoc in order to make inferences about the data. Given that this thesis did not outline any hypotheses (as it was the first of its kind, RQs were more fitting), there were no existing hypotheses on which to base correlation analyses. Nevertheless, certain hypotheses put forth by Drebing et al. (2001) and Christensen et al. (2001) have been utilized for correlation analyses to be conducted with this project's survey data.

Biases, Assumptions, and Ethical Considerations

In terms of researcher biases, a few considerations are important to note. Given that I am a part of the population recruited for the project, I took extra steps to ensure minimal bias. To mitigate biases resulting from relative naiveté regarding the fields of gambling, I relied on the experience of my thesis committee, who are well versed in the topic of gambling, conducted a thorough literature review prior to undertaking this research, and took measures to ensure that any biases had minimal impact upon the research being conducted. While I do not have a lot of experience in providing counselling support for PGs, I do have a broad array of experience within the fields of psychology, counselling, and mental health and addictions and have amassed experience working with female populations. Regarding other biases, I did not offer an incentive for people to complete the survey, given the ethical considerations surrounding incentives (e.g., it cannot be so big that it introduces bias; Creswell, 2012).

Some ethical issues of confidentiality are worthy of being addressed. For instance, the survey was designed in a way that did not require participants to disclose their names and information, such as name of school or program, was not linked to identifying information of survey respondents. Furthermore, in reporting the results, any data that may have revealed the identity of participants were amalgamated into an aggregate response, rather than reporting individual responses. Finally, all data will be destroyed after 5 years.

In accordance with the University of Lethbridge research policy, ethical approval for this thesis was sought through the University of Lethbridge Faculty of Education and adhered to the standards associated with conducting research on human subjects. This

process included submitting an ethics review application, providing informed consent to all research participants, and ensuring no names or identifying features were collected from the research participants. Important to note is that I also sought ethical approval from various schools (i.e., University of Calgary Conjoint Faculties Research Ethics Board, University of Regina, and Adler University Research Ethics Boards) that asked that the survey project be submitted through their individual ethics boards before disseminating the survey to their students.

Chapter 4: Results

In this chapter, I present the results of the reliability and validity analyses. Then, the responses correlating with each survey section are provided. The implications of the results are discussed in Chapter 5.

Reliability of the Test

The reliability analyses for the survey sections (where available to conduct these) have been completed in SPSS and outlined subsequently, as well as a few extra subscales that have been included, based on the qualitative similarity of the survey questions being asked. Given that an ideal internal consistency score should exceed 0.8, some of these subscales can be considered reliable (Streiner & Norman, 2008).

RQ2. Reliability analyses for the RQ2 subscale consisted of two items. The majority of RQ2 questions (applicable survey questions from 18–51; Appendix C) had zero variance among respondents and were removed from the analysis by SPSS. The remaining two questions yielded complete reliability ($\alpha = 1.00$) and pertained to survey questions asking about previous direct practicum client contact in gambling and alcohol (survey items 34 and 51). The high correlations between the items indicate that the items were measuring the same construct. An additional analysis that added these two variables to the variables measuring previous experience yielded slightly higher reliability than previously ($\alpha = 0.584$). Finally, an analysis was conducted to determine whether the three items pertaining to practicum client contact in particular yielded a higher reliability, which it did ($\alpha = 0.633$), although not an optimal score.

RQ3. Reliability analyses for the RQ3 subscale consisted of 20 items. The majority of RQ3 questions (applicable survey questions from 52–72; Appendix C) had

zero variance and were removed from the analysis by SPSS. There were not enough cases to conduct this analysis. Reliability analyses regarding questions pertaining to gender differences among those who have gambling issues, what these gender differences are from, and whether they relate to different treatment methods yielded a reliability score of $\alpha = 0.698$ (survey items 52, 54, 55).

RQ4. Reliability analyses for the RQ4 subscale consisted of 16 items (survey questions from 73–90; Appendix C). The 16 eligible items were used and yielded a high reliability score ($\alpha = 0.942$). The interitem correlations for these items were also satisfactory, suggesting that correlations between most of the items were high. Of note, there were no items that were negatively correlated, suggesting that the items were measuring similar constructs.

The reliability analysis for the two items (survey questions 73–74) related to comfort level asking clients and female clients about gambling yielded a high reliability score ($\alpha = 0.937$), the six items (survey questions 75–80) related to competence also yielded a high reliability score ($\alpha = 0.917$), and the six items (survey questions 81–86) related to preparedness also yielded a high reliability score ($\alpha = 0.918$). Finally, the reliability analysis for whether respondents felt they had been effectively educated and trained to deal with clients presenting with gambling-related problems consisted of two items (survey questions 87 and 89) yielded a high reliability score ($\alpha = 0.845$).

RQ5. Reliability analyses for the RQ5 subscale consisted of eight items (survey questions from 91–98; Appendix C). Once again, the reliability was high for RQ5 items ($\alpha = 0.946$), which is considered optimal internal consistency between these items (Streiner & Norman, 2008). The interitem correlations between these items were high

and indicated that deleting any items would reduce the reliability score. The reliability analysis for the level of interest in learning more about gambling only consisted of two items (survey questions 91 and 92) yielded a high score ($\alpha = 0.965$), as did the reliability analysis for the willingness to receive more training consisted of six items (survey questions 93-98; $\alpha = 0.931$).

Validity

I attempted to increase validity through several means. These have been discussed in Chapter 3.

Completion and Response Rates

Surveys were administered to Canadian counselling psychology graduate programs, although some schools chose not to disseminate the survey for various reasons, while others did not respond to the initial or reminder emails. Of the programs contacted, 151 graduate students responded, and 104 fully completed the survey (68.9% completion rate).

Regarding response rate, the exact number was impossible to calculate, given that it was difficult to know how many students actually received the survey. Nevertheless, response rate was approximated by calculating the number of people who likely received the survey ($n = 2,411$; based upon information presented in Table 1 in Chapter 3) versus the number of people who returned it ($n = 104$). This resulted in a response rate of 4.3%.

RQ1

The first RQ focused on the demographic profile of the survey respondents. The results of survey questions pertaining to this RQ are outlined below.

Gender. Of the 104 survey respondents who fully completed the survey, 92.3% ($n = 96$) identified as female, while 7.7% ($n = 8$) identified as male. No respondents identified an “Other” gender, despite the option being available.

I contacted Sarah Vranckx (personal communication, January 12, 2016), the data support officer for research, policy, and international relations at Universities Canada, in order to determine whether the gender disparity in survey respondents was due to an uneven gender distribution in relevant Canadian programs. The data support officer provided the most recent university enrolment numbers available from Statistics Canada; see Table 3 for more information (Statistics Canada, 2013).

Based upon the Universities Canada information provided (Statistics Canada, 2013), student enrolment numbers in all fields of graduate programs at Canadian universities indicate a fairly equal spread between the genders: 45.8% were male ($n = 95,043$) and 54.2% were female ($n = 112,542$). Despite this, psychology- and counselling-related programs show a different trend. In psychology graduate programs, 19.7% of students were male ($n = 1,581$) and 80.3% were female ($n = 6,453$) and six students were unaccounted for in the gender comparison (Statistics Canada, 2013). A similar pattern was seen in clinical, counselling, and applied psychology graduate programs. Of the 4,509 students enrolled, 15.4% were male ($n = 693$) and 84.5% were female ($n = 3,810$), leaving six students unaccounted for (Statistics Canada, 2013). In counselling psychology graduate programs, 84.8% of students were female ($n = 1,071$) and 15.4% being male ($n = 195$), leaving three students with gender that had not been unaccounted for (Statistics Canada, 2013). The gender disparity between male and

female respondents for this survey was, therefore, relatively on par with Canadian counselling psychology graduate programs.

Table 3

2013 Enrolments at Canadian Universities in Graduate Programs by Field of Study and Gender

Field of Study	Gender	Full-Time (n)	Full-	Part-Time (n)	Part-
			Time (%)		Time (%)
Psychology	Total	6,822*	100	1,218	100
	Male	1,401	20.5	180	14.8
	Female	5,415	79.4	1,038	85.2
	Unknown	-	-	-	-
Clinical, counselling and applied psychology	Total	3,531**	100	978	100
	Male	564	16.0	129	13.2
	Female	2,961	83.9	849	86.8
	Unknown	-	-	-	-
Counselling psychology	Total	1,017***	100	246****	100
	Male	156	15.3	39	15.9
	Female	858	84.4	213	86.6
	Unknown	-	-	-	-
Total: All fields of study (graduate programs only)	Total	155,406*****	100	52,218	100
	Male	74,412	47.9	20,631	39.5
	Female	80,964	52.1	31,578	60.5
	Unknown	33	0.0	9	0.0

Note. Adapted from *Statistics Canada, 2013 Enrolments at Canadian Universities in Graduate Programs by Field of Study and Gender* (p. 1), 2013. This does not constitute an endorsement by Statistics Canada of this product.

* Based on the totals in the gender categories, there are six students unaccounted for ($1,401 + 5,415 = 6,816$; the total indicates 6,822). The percentages are based on the totals given ($1,401 / 6,822 = 20.5\%$) due to the fact that it is impossible to tell which categories the unaccounted six students belong to; thus, be aware that the percentages may not total 100.

** Based on the totals in the gender categories, there are six students unaccounted for ($564+2,961 = 3,525$; the total indicates 3,531). The same process as above applies.

*** Based on the totals in the gender categories, there are three students unaccounted for ($156+858 = 1,014$; the total indicates 1,017). The same process as above applies.

**** Based on the totals in the gender categories, there are six students unaccounted for ($39+213 = 252$; the total indicates 246). The same process as above applies.

***** Based on the totals in the gender and unknown categories, there are three students unaccounted for ($33+80,964+74,412 = 155,409$; the total indicates 155,406). The same process as above applies.

Age. The survey respondents' ages ranged from 22 to 59 years. The average age was 32.6 years and the median age was 30 years.

School and province. Table 4 contains information regarding the survey responses per school. The breakdown of responses per province is also provided in Table 5.

Table 4

Schools Survey Respondents are Currently Attending

School	Response Percent (%)	Response Count (n)
Acadia University	3.8	4
Adler Professional School of Professional Psychology (Vancouver campus)	0.0	0
Athabasca University	1.9	2
Brandon University	1.0	1
Briercrest College and Seminary Marriage and Family Counselling	0.0	0
City University (Calgary)	0.0	0
City University (Edmonton)	0.0	0
City University (Vancouver)	0.0	0
City University (Victoria)	0.0	0
Concordia	5.8	6

School	Response Percent (%)	Response Count (<i>n</i>)
Gonzaga University	0.0	0
Laval	0.0	0
McGill University	7.7	8
Memorial University of Newfoundland	5.8	6
Saint Paul University	0.0	0
Simon Fraser University	0.0	0
St. Stephen's College (affiliated with University of Alberta)	0.0	0
Thompson Rivers University	0.0	0
Trinity Western University	3.8	4
Tyndale Seminary	12.5	13
Université de Saint-Boniface	0.0	0
Université du Québec à Trois-Rivières	0.0	0
Université du Québec en Abitibi-Témiscamingue	0.0	0
Université du Québec en Outaouais	0.0	0
University of Alberta	7.7	8
University of British Columbia (Vancouver)	4.8	5
University of Calgary	13.5	14
University of Guelph	0.0	0
University of Lethbridge	12.5	13
University of Manitoba	1.9	2
University of Moncton	1.0	1
University of Montreal	0.0	0
University of New Brunswick (Saint John)	0.0	0
University of New Brunswick (Fredericton)	4.8	5

School	Response Percent (%)	Response Count (n)
University of Northern British Columbia	0.0	0
University of Ottawa	0.0	0
University of Québec in Montreal	0.0	0
University of Québec in Rimouski	0.0	0
University of Regina	1.9	2
University of Saskatchewan	0.0	0
University of Sherbrooke	0.0	0
University of Toronto	5.8	6
University of Victoria	2.9	3
University of Winnipeg	0.0	0
Western University	0.0	0
Wilfrid Laurier University	1.0	1
Other - please enter the name of your school below:	0.0	0
Total	100.0	104

Table 5

Breakdown of Survey Responses by Province

Province	Schools Included	Respondents Per School		Respondents Per Province	
		%	n	%	n
Alberta	Athabasca University	1.9	2	35.6	37
	City University (Calgary)	0.0	0		
	City University (Edmonton)	0.0	0		
	St. Stephen's College	0.0	0		
	University of Alberta	7.7	8		
	University of Calgary	13.5	14		

Province	Schools Included	Respondents Per School		Respondents Per Province	
		%	n	%	n
British Columbia	University of Lethbridge	12.5	13		
	Adler Professional School of Professional Psychology (Vancouver campus)	0.0	0	11.5	12
	City University (Vancouver)	0.0	0		
	City University (Victoria)	0.0	0		
	Gonzaga University	0.0	0		
	Simon Fraser University	0.0	0		
	Thompson Rivers University	0.0	0		
	Trinity Western University	3.8	4		
	University of British Columbia (Vancouver)	4.8	5		
	University of Northern British Columbia	0.0	0		
Manitoba	University of Victoria	2.9	3		
	Brandon University	1.0	1	2.9	3
	University of Manitoba	1.9	2		
	Université de Saint-Boniface	0.0	0		
New Brunswick	University of Winnipeg	0.0	0		
	University of New Brunswick (Fredericton)	4.8	5	5.8	6
	University of New Brunswick (Saint John)	0.0	0		
	University of Moncton	1.0	1		

Province	Schools Included	Respondents Per School		Respondents Per Province	
		%	n	%	n
Newfoundland and Labrador	Memorial University of Newfoundland	5.8	6	5.8	6
Nova Scotia	Acadia University	3.8	4	3.8	4
Ontario	Saint Paul University	0.0	0	19.3	20
	Tyndale Seminary	12.5	13		
	University of Guelph	0.0	0		
	University of Ottawa	0.0	0		
	University of Toronto – Ontario Institute for Studies in Education (OISE)	5.8	6		
	Western University	0.0	0		
	Wilfrid Laurier University	1.0	1		
Other	No schools mentioned	0.0	0	0.0	0
Québec	Concordia	5.8	6	13.5	14
	Laval University	0.0	0		
	McGill University	7.7	8		
	University of Montreal	0.0	0		
	Université du Québec à Trois-Rivières	0.0	0		
	Université du Québec en Abitibi-Témiscamingue	0.0	0		
	University of Québec in Montreal	0.0	0		
	Université du Québec en	0.0	0		

Province	Schools Included	Respondents Per School		Respondents Per Province	
		%	n	%	n
	Outaouais				
	University of Québec in Rimouski	0.0	0		
	University of Sherbrooke	0.0	0		
Saskatchewan	Briercrest College and Seminary Marriage and Family Counselling	0.0	0	1.9	2
	University of Regina	1.9	2		
	University of Saskatchewan	0.0	0		
Total		100.1	104	100.1	104

Education. The majority of respondents (73.1%; $n = 76$) had obtained an undergraduate degree as their highest degree (Table 6). Respondents were also in the process of obtaining a variety of degree or academic levels (Table 7) and studying in a variety of fields (Table 8). The majority of respondents (86.5%; $n = 90$) were obtaining a master's degree or specializing in counselling psychology (77.9%; $n = 81$).

Table 6

The Highest Degree Respondents Have Obtained Thus Far

Degree	Response Percent (%)	Response Count (n)
Undergraduate	73.1	76
Master's degree	22.1	23
Doctorate	0.0	0
Other (please specify)	4.8	5
Total	100.0	104

Table 7

The Degree Respondents are Currently Obtaining

Degree	Response Percent (%)	Response Count (n)
Master's degree	86.5	90
Doctorate	12.5	13
Postdoctorate	0.0	0
Other (please specify)	1.0	1
Total	100.0	104

Table 8

Specialty Area that Survey Respondents are Currently Studying or Focus of Final Thesis, Project, or Research

Specialty Area	Response Percent (%)	Response Count (n)
Clinical psychology	12.5	13
Counselling psychology	77.9	81
Addictions and mental health	15.4	16
Neuropsychology	1.0	1
Geropsychology	2.9	3
Rehabilitation and vocational	1.9	2
Health	4.8	5
Administration	1.0	1
Other (please specify)	17.3	18

RQ2

The second RQ aimed at ascertaining the knowledge and training that is provided to graduate students in recognized Canadian counselling psychology graduate programs related to future client addiction issues. In particular, this thesis explored knowledge regarding gambling and alcohol use disorders.

Experience with addictions interventions. Regarding experience outside of their graduate programs (i.e., employment, volunteer), 42.3% ($n = 44$) respondents have had experience, while 57.7% ($n = 60$) have not. For those who had experience, on average respondents accrued 1,735.7 hours of experience, with the highest being 10,000 hours and a median of 100 hours.

Regarding direct client contact associated with one's graduate program (i.e., practicum), 47.1% ($n = 49$) of respondents have had experience, while 52.9% ($n = 55$) have not. On average respondents had 247.7 hours of direct client experience, with the highest being 2,200 hours, the lowest 2 hours, and a median of 150 hours. The number of practicum clients that the 49 respondents had seen ranged from 2 to 250 people. The average number of practicum clients seen was 41.0 people and the median was 24 people.

Setting. Survey respondents were able to choose more than one setting in which they had seen clients. Thus, the response percent does not total 100% (Table 9).

Table 9

Settings in Which Survey Respondents Have Seen Practicum Clients

Settings	Response Percent (%)	Response Count (n)
In-patient	20.4	10
Out-patient	73.5	36
Unknown	0.0	0
Other (please specify)	38.8	19

Program focus. I asked survey respondents a number of questions pertaining to the specific focus of their program and current classes (Table 10). The majority (78.8%; $n = 82$) of survey respondents revealed the programs and classes they attended did not

focus on addiction-related problems. Similarly, 87.5% ($n = 91$) reported no specific focus on alcohol use-related problems within their programs or classes. Perhaps not surprisingly, 100% ($n = 104$) of respondents stated their programs and classes did not focus on gambling-related problems.

Table 10

Particular Focus in Survey Respondents' Current Program or Classes

Question	Answer Options	Response Percent (%)	Response Count (n)
Is there a focus on addiction-related problems within your current program/classes?	Yes	21.2	22
	No	78.8	82
Is there a specific focus on alcohol use-related problems within your current program/classes?	Yes	12.5	13
	No	87.5	91
Is there a specific focus on problematic gambling-related problems within your current program/classes?	Yes	0.0	0
	No	100.0	104

Graduate school training. In this section, I first detail the degree to which current programs focus on alcohol-related problems. I then do the same for gambling-related problems (Table 11).

Alcohol-related problems. The data revealed a small amount of focus on alcohol use-related problems in current programs and classes. Respondents reported that the percentage of graduate school training in alcohol use-related problems they have received thus far (in relation to other training), is on average 3.3%. The highest percent reported was 50.0% and the lowest was 0.0%, with a median of 0.0%.

Respondents expect to receive an average of 7.3% of graduate school training in alcohol use-related problems in relation to other training. The highest percent of training

reported that students expect to receive is 80.0%, the lowest is 0.0% and the median is 2.0%.

Gambling-related problems. Despite not having a specific focus on gambling-related problems within programs or classes, some respondents reported that they had received some graduate school training in this area. Out of the 104 respondents, the highest percentage of graduate school training in gambling-related problems (in relation to other training) reported was 15% and the lowest was 0.0%. The average percentage of training in gambling (related to other training in graduate programs) was 0.9%, with a median of 0.0%.

Regarding how much training that respondents expect to receive in their current program (in relation to other training), many did not expect to receive any. Overall, the average percentage that the 104 survey respondents expected to receive, related to other training in their graduate programs, was 2.3%. The highest percentage that respondents expected to receive was 25.0% and the lowest was 0.0%, with a median of 0.0%.

Internship or practicum training. Here, I first detail the degree to which internships or practicums focus on alcohol-related problems. I then do the same for gambling-related problems (Table 11).

Alcohol-related problems. I also asked respondents to identify the percentage of internship or practicum training in alcohol use-related problems that they had received in relation to other training. Of the 104 respondents, 36 (34.6%) replied with nonapplicable, meaning that they have not yet had practicum or internship experience. On average, the remaining respondents have received 7.0% of training in alcohol use disorders, in relation

to other graduate school training. Respondents' highest percent reported was 80.0% and lowest was 0.0% with a median of 0.0%.

Regarding how much training they expected to receive, on average 9.6% of respondents receiving training in alcohol use-related problems in relation to other training. The lowest reported percentage was 0.0% and the highest was 100.0%, with a median of 2.5%. Regarding direct practicum client contact in alcohol, 33.7% ($n = 35$) of respondents said that they had experienced some client contact, while 66.3% ($n = 69$) had not.

Gambling-related problems. Of the 104 respondents, 39.4% ($n = 41$) responded with nonapplicable. The average percentage of training in gambling-related problems—in comparison to other training—that the remaining respondents had received was 1.0%, with the lowest being 0.0% and the highest being 30.0%, with a median of 0.0%

Regarding the percentage of internship or practicum training in gambling-related problems that they expect to receive in their current program—in relation to other training, respondents indicated that, on average, they expected to receive 3.0%. The highest percentage was 30.0%, lowest was 0.0%, with a median of 0.0%. Regarding direct practicum client contact in gambling, 11.5% ($n = 12$) said that they had some, while 88.5% ($n = 92$) had not.

Other experience and training. In this section I discuss other experience and training, such as reading articles. I first detail the degree to which current programs focus on alcohol-related problems. I then do the same for gambling-related problems (Table 11).

Table 11

Comparison of Results for Alcohol Use and Gambling Disorders

Survey Question	Alcohol Use Disorders	Gambling-Related Problems
Yes, there is a focus on this area within current programs or classes (%)	12.5	0.0
Graduate school training received thus far, in relation to other training (average %)	3.3	0.9
Graduate school training expected to receive, in relation to other training (average %)	7.3	2.3
Internship or practicum training received thus far, in relation to other training (average %)	7.0	1.0
Internship or practicum expected to receive, in relation to other training (average %)	9.6	3.0
Have had direct client contact in this area (average %)	33.7	11.5
Believe these issues exist (%)	100.0	99.0
Have read about this issues (%)	85.6	63.5
Have attended workshops, seminars, or conferences on this issue (%)	33.7	11.5
Have watched, read, and/or consulted mass media materials on this issue (%)	76.9	52.9

Alcohol-related problems. While respondents expected to receive a wide range (0–100%) of training in alcohol use disorders, all of them (100%; $n = 104$) believe that alcohol use-related problems exist. A large majority of the respondents (85.6%; $n = 89$) have read about alcohol-related problems prior to this survey, while 14.4% ($n = 15$) had not. Of those 89 who had, 95.5% ($n = 85$) indicated their reading contributed to their levels of perceived knowledge in the area of alcohol-related problems, while 4.5% ($n = 4$) did not. Similarly, 93.3% ($n = 83$) reported their reading would contribute to their future competence as a practitioner potentially working in the area of alcohol-related problems, while 6.7% ($n = 6$) did not.

Approximately two thirds of the respondents (66.3%; $n = 69$) had not attended any workshops, seminars, or conferences on alcohol-related problems. Of those who had (33.7%; $n = 35$), the number of events attended ranged from 0 to 30, with an average of 4.1 events and a median of 2.0 events. The majority of those who had attended the workshops, seminars, or conferences on alcohol-related problems, 97.1% ($n = 34$) indicated their attendance contributed to their levels of perceived knowledge and will contribute to their future competence as a practitioner potentially working in the area of alcohol-related problems, while 2.9% ($n = 1$) did not.

Of the 104 respondents, 76.9% ($n = 80$) respondents had watched, read, or consulted mass media materials on alcohol-related problems, while 23.1% ($n = 24$) had not. Of those who had, the number of materials accessed ranged from 1 to 200, with an average of 19.3 materials and a median of 10 materials. Overall, 92.5% ($n = 74$) of respondents reported watching, reading, or consulting these mass media materials had contributed to their levels of perceived knowledge in the area of alcohol-related problems, while 7.5% ($n = 6$) did not. Finally, 77.5% ($n = 62$) noted watching, reading, or consulting these mass media materials would contribute to their future competence as a practitioner potentially working in the area of alcohol-related problems, while 22.5% ($n = 18$) did not.

Gambling-related problems. Despite the relatively low numbers of training that respondents had received or expected to receive, 99.0% ($n = 103$) believed that gambling-related problems exist. In addition, 63.5% ($n = 66$) had read about gambling-related problems prior to taking this survey, while 36.5% ($n = 38$) had not. Of those 66 respondents who had previously read about gambling, 90.9% ($n = 60$) reported their

reading had contributed to their levels of perceived knowledge in the area of gambling-related problems, while 9.1% ($n = 6$) did not. Furthermore, of the 66 respondents who had read about gambling, approximately three quarters (74.2%; $n = 49$) indicated their reading would contribute to their future competence as a practitioner potentially working in the area of gambling-related problems, while 25.8% ($n = 17$) did not.

The majority (88.5%; $n = 92$) of the 104 respondents had not attended any workshops, seminars, or conferences on gambling-related problems. Of the 11.5% ($n = 12$) who had, the highest number of workshops, seminars, or conferences on gambling-related problems attended was 5 events, the lowest was 1 event, the median was 1 event, and the average was 1.8 events. Despite the small number of workshops, seminars, or conferences on gambling-related problems that the 12 respondents had attended, 91.7% ($n = 11$) reported these had contributed to their levels of perceived knowledge in the area of gambling-related problems, while 8.3% ($n = 1$) did not. Similarly, 91.7% ($n = 11$) noted their attendance at these workshops, seminars, or conferences on gambling-related problems would contribute to their future competence as a practitioner potentially working in the area of gambling-related problems.

Of the 104 survey respondents, 52.9% ($n = 55$) reported that they had watched, read, or consulted mass media materials on gambling-related problems, while 47.1% ($n = 49$) had not. Of those 55 respondents who had, the highest number of mass media materials accessed was 50 materials, the lowest was 1 material, the median was 4 materials, and the average was 7.7 materials. Overall, 90.9% ($n = 50$) found watching, reading, or consulting mass media materials contributed to their levels of perceived knowledge in gambling-related problems, while 9.1% ($n = 5$) did not. Similarly, 70.9%

($n = 39$) indicated watching, reading, or consulting mass media materials will contribute to their future competence as a practitioner potentially working in the area of gambling-related problems, while 29.1% ($n = 16$) did not.

RQ3

The third RQ focused on ascertaining the knowledge and training that is provided to graduate students in recognized Canadian counselling psychology programs related to gender differences in addiction. Specifically, the survey focused on knowledge of gender differences in gambling disorders.

Belief that gender differences exist and why. Out of the 104 survey respondents, 80.8% ($n = 84$) believe that there are gender differences among populations who have gambling-related problems. I asked the 19.2% ($n = 20$) who did not believe there are to expand on their reasons for this. Participants' responses varied, and generally fell under a few general categories, which I present in the list that follows. Please note that the examples provided are amalgamations of several responses, so as to protect the confidentiality of individual respondents.

- Not knowing enough about the topic (e.g., do not have enough information to determine whether gender differences do exist, do not know).
- Seeing the genders as similar in regards to gambling-related problems (e.g., disorders such as gambling are not affected by gender, the genders are similar in their risk of developing, and experience of, gambling disorders).
- Similarities in the brain function or addiction processes negate gender differences (e.g., the brain processes inherent in addictive processes apply to everyone, regardless of gender).

I also asked respondents whether any gender differences related to gambling-related problems stem from biological influences, social influences, a mixture of the two, none of the above, or if they thought gender differences did not affect gambling-related problems. The majority of respondents (70.2%; $n = 73$) believed that a mixture of biological and societal influences contribute to gender differences in gambling-related problems (the full results are available in Figure 2).

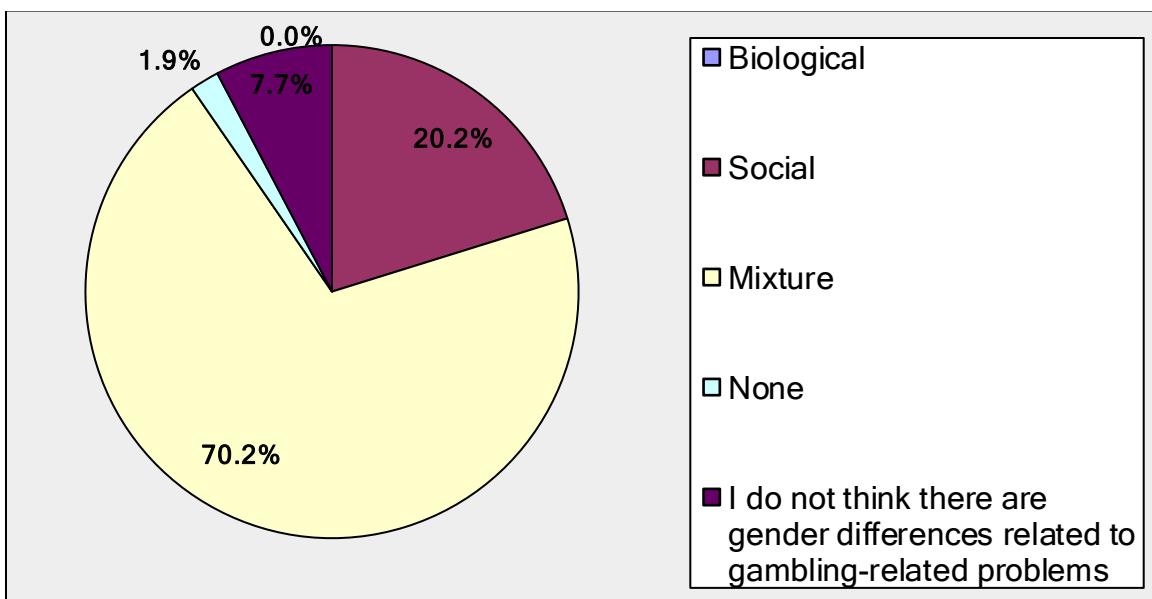


Figure 2. Participants' perceptions of gender differences of gambling-related problems being a result of biological, social, a mixture of these influences, or none of the above.

Gender differences and treatment for gambling disorders. I asked survey respondents, "Based on whether you think gender differences related to gambling-related problems exist, do you think that gambling-related problems lend themselves to different treatments for each gender?" The majority of respondents (66.3%; $n = 69$) believed gender differences affect gambling-related problems and that men and women have different treatment needs for gambling-related problems. Several respondents (16.3%; $n = 17$) believed gender differences affect gambling-related problems, but do not think that men and women have different treatment needs for gambling-related problems.

Fewer respondents (10.6%; $n = 11$) do not think there are gender differences related to gambling-related problems, but also think that men and women have different treatment needs for gambling-related problems. Finally, 6.7% ($n = 7$) of respondents do not think gender differences affect gambling-related problems, and do not believe that men and women have different treatment needs for gambling-related problems.

Respondents were given the chance to expand on their responses, which have been categorized under the main themes I observed in the responses. Once again, examples provided represent an amalgamation of several responses to protect confidentiality.

- Some respondents focused on the differing treatment needs and approaches for both genders (e.g., gender and social forces are important considerations in terms of treatment needs, particularly if those differences contribute to the etiology of the gambling disorder).
- Some respondents focused on tailored treatments in general, regardless of gender (e.g., there is a need to individualize treatment to the person, which may or may not include gender-related considerations).
- Some respondents focused on gender in general, without treatment (e.g., the impact of gambling may be influenced by gender differences, including notions of shame, manifestations of disorders, motivations for the behaviour).
- Some respondents focused on treatment in general, without gender (e.g., treatment focused on emotions or on the etiology or reasons for gambling would be most beneficial).

Graduate school training. Regarding the percentage of graduate school training in gender differences in gambling-related problems that respondents have received thus far (in relation to other training), responses ranged from 0.0% to 5.0%, with an average of 0.1% and a median of 0.0%. Respondents expected to receive between 0.0% and 15.0% of training in their current programs on gender differences in gambling-related problems, with an average of 0.7% and a median of 0.0%.

Internship or practicum training. Regarding the percentage of internship or practicum training for gender differences in gambling-related problems that survey respondents have received thus far (in relation to other training), respondents have received between 0.0% and 13.0%, with an average of 0.3% and a median of 0.0%. Those who have not had any internship or practicum training were instructed to type in “N/A,” and 44 respondents did so.

In terms of the percentage of internship or practicum training regarding gender differences in gambling-related problems that respondents expect to receive in their current programs, responses ranged from 0.0% to 20.0%. On average, respondents expected to receive 1.0% of training in gender differences related to gambling-related problems, with a median of 0.0%.

Female clients. Regarding experience with female clients overall, 52.9% ($n = 55$) people have had previous direct female practicum client contact, while 47.1% ($n = 49$) people had not. Overall, the approximate number of female practicum clients seen ranged from 1 to 160 people, with an average of 24.8 people and a median of 11 people.

Other experience and training. Out of the 104 respondents, 14.4% ($n = 15$) had read about gender differences in gambling-related problems prior to taking the survey, while 85.6% ($n = 89$) had not. Of those 15 who had, 86.7% ($n = 13$) reported their reading had contributed to their levels of perceived knowledge regarding gender differences in gambling-related problems, while 13.3% ($n = 2$) did not. Furthermore, 93.3% ($n = 14$) expressed their reading would contribute to their future competence as a practitioner potentially working in the area of gender differences in gambling-related problems, while 6.7% ($n = 1$) did not.

Very few respondents (2.9%; $n = 3$) have attended workshops, seminars, or conferences on gender differences in gambling-related problems, while the majority (97.1%; $n = 101$) had not. Out of the three who had, two of them had attended 1 event, and one reported attending 0 events. Furthermore, out of those three respondents, 66.7% ($n = 2$) indicated their attendance at these workshops, seminars, or conferences had contributed to their levels of perceived knowledge or reported their attendance would contribute to their future competence as a practitioner potentially working in the area of gender differences in gambling-related problems, while 33.3% ($n = 1$) did not.

Regarding whether survey respondents had watched, read, or consulted any mass media materials on gender differences in gambling-related problems, 9.6% ($n = 10$) reported that they had, while 90.4% ($n = 94$) had not. Of those 10 who had, they had accessed between 1 and 20 materials, with an average of 5.2 materials and a median of 2.0 materials. Overall, 80.0% ($n = 8$) found watching, reading, or consulting these mass media materials had contributed to their levels of perceived knowledge or reported it

would contribute to their future competence as a practitioner potentially working in the area of gender differences in gambling-related problems, while 20.0% ($n = 2$) did not.

RQ4

The fourth RQ sought to ascertain the self-reported comfort, competence, and preparedness levels that current graduate students in a recognized Canadian counselling psychology graduate programs report in relation to working with PGs, and with WPGs in particular. These are outlined below.

Comfort. Regarding survey respondents' comfort level in asking clients about gambling-related problems, the responses ranged. A similar pattern emerged regarding survey respondents' comfort level in asking female clients about gambling-related problems (see Table 12). A chi-square test of independence found significant differences between positive and negative responses when comparing clients and female clients, $X^2(1, N = 75) = 64.66, p < .00$. Responses indicated a trend across all chi-square analyses. For example, if a respondent indicated being extremely comfortable with clients in general, then it is likely that they also responded being extremely comfortable with female clients (and also vice versa). However, there were a few instances where outlying responses were indicated (e.g., one respondent indicated being uncomfortable asking clients about gambling-related problems, though no respondents answered that they felt uncomfortable asking female clients).

Table 12

Comfort Level in Asking Clients and Female Clients About Gambling-Related Problems

Comfort Level	Clients		Female Clients	
	%	n	%	n
Extremely Comfortable	33.7	35	33.7	35
Somewhat Comfortable	31.7	33	36.5	38
Neutral	26.0	27	23.1	24
Somewhat Uncomfortable	6.7	7	5.8	6
Extremely Uncomfortable	1.9	2	1.0	1

Competence. Very few respondents self-reported being extremely competent in evaluating clients for gambling related-problems (2.9%; $n = 3$). The remainder of participants were divided between self-reporting as somewhat competent (26.9%; $n = 28$), 13.5% ($n = 14$) were neutral, 37.5% ($n = 39$) were somewhat incompetent, and 19.2% ($n = 20$) were extremely incompetent. Regarding survey respondents' self-reported competence in evaluating female clients for gambling-related problems, the results were quite similar (Table 13). A chi-square test of independence found significant differences between positive and negative responses when comparing clients and female clients, $X^2(1, N = 89) = 84.67, p < .001$. Typically, participants appeared to respond the same way for both clients and female clients. It should be mentioned that one person indicated feeling incompetent in evaluating female clients, although no respondents indicated the same of clients in general.

Table 13

Self-Reported Competence Level in Evaluating Clients and Female Clients for Gambling-Related Problems

Competence Level	Clients		Female Clients	
	%	n	%	n
Extremely Competent	2.9	3	2.9	3
Somewhat Competent	26.9	28	26.0	27
Neutral	13.5	14	13.5	14
Somewhat Incompetent	37.5	39	38.5	40
Extremely Incompetent	19.2	20	19.2	20

Table 14

Self-Reported Competence Level in Treating Clients and Female Clients for Gambling-Related Problems

Competence Level	Clients		Female Clients	
	%	n	%	n
Extremely Competent	1.9	2	1.0	1
Somewhat Competent	20.2	21	20.2	21
Neutral	14.4	15	15.4	16
Somewhat Incompetent	30.8	32	31.7	33
Extremely Incompetent	32.7	34	31.7	33

Regarding self-reported competence in treating clients, and in particular female clients, for gambling-related problems, the respondents self-reported being mostly incompetent (Table 14). For example, 32.7% ($n = 34$) and 31.7% ($n = 33$) of respondents self-reported as extremely incompetent to treat clients and female clients, respectively. Chi-square analyses further reinforced the fact there is a significant difference between responses for competence and working with clients and female clients, $X^2(1, N = 88) =$

88.00, $p < .001$. In other words, it is likely that if a survey respondent answered negatively for competence in treating clients, he or she would also answer in a similar fashion for female clients.

Regarding self-reported competence in referring clients, particularly those who are female, for gambling-related problems, the respondents' answers varied from positive to negative, although most self-reported being competent (Table 15). Chi-square analyses indicated a statistically significant difference between positive and negative responses for clients and female clients, $X^2(1, N = 79) = 79.00, p < .001$. Again, respondents who responded positive for clients also appeared to respond positive for female clients.

Table 15

Self-Reported Competence Level in Referring Clients and Female Clients for Gambling-Related Problems

Competence Level	Clients		Female Clients	
	%	n	%	n
Extremely Competent	18.3	19	17.3	18
Somewhat Competent	37.5	39	37.5	39
Neutral	23.1	24	23.1	24
Somewhat Incompetent	18.3	19	20.2	21
Extremely Incompetent	2.9	3	1.9	2

Preparedness. Respondents were asked, based on their current level of education and training, how well prepared they feel they are to effectively assess, treat, and refer clients. Regarding assessment, survey participants differed significantly in positive and negative responses for clients and female clients, $X^2(1, N = 91) = 85.78, p < .00$. Typically, responses were the same for both client type (Table 16).

Table 16

Self-Reported Preparedness Level in Assessing Clients and Female Clients for Gambling-Related Problems

Competence Level	Clients		Female Clients	
	%	n	%	n
Extremely Prepared	3.8	4	3.8	4
Somewhat Prepared	20.2	21	17.3	18
Neutral	10.6	11	11.5	12
Somewhat Unprepared	35.6	37	37.5	39
Extremely Unprepared	29.8	31	29.8	31

Based on their current level of education and training, I asked respondents how well prepared they were to effectively treat clients, particularly female clients, presenting with gambling-related problems (Table 17). The majority (i.e., over 70%) expressed they were somewhat or extremely unprepared to do so, with chi-square tests demonstrating a significant difference between positive and negative responses for clients and female clients, $X^2(1, N = 94) = 94.00, p < .001$. As before, respondents typically made the same response for both client types.

Table 17

Self-Reported Preparedness Level in Treating Clients and Female Clients for Gambling-Related Problems

Competence Level	Clients		Female Clients	
	%	n	%	n
Extremely Prepared	1.9	2	1.9	2
Somewhat Prepared	14.4	15	13.5	14
Neutral	7.7	8	9.6	10
Somewhat Unprepared	37.5	39	38.5	40
Extremely Unprepared	38.5	40	36.5	38

Table 18

Self-Reported Preparedness Level in Referring Clients and Female Clients for Gambling-Related Problems

Competence Level	Clients		Female Clients	
	%	n	%	n
Extremely Prepared	14.4	15	13.5	14
Somewhat Prepared	31.7	33	33.7	35
Neutral	20.2	21	18.3	19
Somewhat Unprepared	25.0	26	26.0	27
Extremely Unprepared	8.7	9	8.7	9

I also asked respondents how well prepared they were to effectively refer clients presenting with gambling-related problems (Table 18). Participants' responses significantly varied between positive and negative responses by client gender, with the highest number of responses indicating respondents were somewhat prepared to refer clients, particularly those who are female, for gambling-related problems. Chi-square analyses once again confirmed that responses were significantly different between positive and negative responses for clients and female clients, $X^2 (1, N=83) = 71.15$, $p < .001$. Important to note is that there was one respondent who indicated being unprepared to refer clients, although not for female clients.

Effectiveness of education and training related to gambling. I asked survey respondents their opinion on whether they had been effectively educated and trained to deal with clients presenting with gambling-related problems. Out of 104 respondents, only 8.7% ($n = 9$) reported that they had.

Respondents were given the option to expand, and their answers have been categorized below. Examples have once again been constructed using a variety of individual responses.

- Lack of knowledge and training (e.g., I have had no or very little information or training; addictions training has been covered in general, though at a very foundational and broad level of coverage).
- Wanting more knowledge and training (e.g., I would like more training in this area, more training is needed in specialized areas of addiction).
- Respondents are at the beginning of their programs or degrees (e.g., I have just begun my program, the addictions topics have not been covered as of yet).
- Other factors contributing to preparedness, comfort, competence, and so forth (e.g., I feel more prepared given my courses or vocational experiences; biopsychosocial studies, cognitive behavioural therapy, or other specific trainings have prepared me for work in this area).

Regarding the level of education and training efficacy in relation to working with female clients presenting with gambling-related problems, the majority of respondents (93.3%; $n = 97$) indicated they have not been trained effectively. Several of the respondents chose to expand on their responses. Aggregate examples have been provided under broad categories below.

- No focus on gambling or training (e.g., gambling has not been a specific focus in my program; have no training; training may be necessary beyond the scope of traditional graduate programs).

- Desire for further training (e.g., I would like to have more training in this area, as my training has not equipped me adequately to work with these populations).
- Has not been covered yet (e.g., I am at the beginning stages of my degree; no coverage of addictions yet; no practicum experience yet).
- Other (an insufficient number of responses were provided to amalgamate them into a general example).

RQ5

The fifth research question sought to ascertain the current level of interest and willingness in gaining more training and knowledge regarding problem gambling, and WPGs in particular. I have summarized these in the subsections that follow.

Interest. Regarding level of interest in learning more about gambling-related problems, the majority of respondents indicated interest. For example, 51.9% ($n = 54$) indicated being somewhat interested in doing so for clients in general, as well as 54.8% for female clients ($n = 57$; Table 19). Chi-square analyses determined that responses were significantly different for positive and negative responses between clients and female clients, $X^2 (1, N = 85) = 69.98, p < .001$. As before, respondents typically made the same response to both client types.

Table 19

Interest Level in Learning More About Gambling-Related Problems

Interest Level	Clients		Female Clients	
	%	n	%	n
Extremely Interested	17.3	18	16.3	17
Somewhat Interested	51.9	54	54.8	57
Neutral	17.3	18	17.3	18
Somewhat Disinterested	13.5	14	11.5	12
Extremely Disinterested	0.0	0	0.0	0

Willingness. Survey respondents were asked about their level of willingness to receive more training regarding working with clients, and female clients specifically, who present with gambling-related problems (Table 20). Many respondents indicated being extremely or somewhat willing to receive more training in terms of clients in general as well as female clients specifically. In this vein, the chi-square analyses, $X^2(1, N = 84) = 55.32, p < .001$, suggested that there is a significant difference between positive and negative responses between willingness to receive training for clients and willingness to receive training for female clients. Further, respondents typically made the same response to both client types responses.

Table 20

Willingness Level in Receiving More Training Regarding Working with Clients with Gambling-Related Problems

Willingness Level	Clients		Female Clients	
	%	n	%	n
Extremely Willing	39.4	41	39.4	41
Somewhat Willing	38.5	40	42.3	44
Neutral	18.3	19	16.3	17
Somewhat Unwilling	3.8	4	1.9	2
Extremely Unwilling	0.0	0	0.0	0

I also asked respondents about their level of willingness to read more articles (Table 21) and attend seminars, workshops, or conferences regarding gambling-related problems (Table 22). In general, respondents indicated some willingness to engage in these activities for clients in general, as well as female clients specifically. The results of the chi-square analyses for articles, $X^2(1, N = 84) = 69.11, p < .001$, and for seminars, $X^2(1, N = 85) = 69.95, p < .001$ suggest once again that there is a statistical difference between positive and negative responses between willingness to read more articles or attend seminars, workshops, or conferences regarding gambling-related problems for clients and willingness to do the same for female clients. Typically, participants who responded positively for clients also responded positively for female clients.

Table 21

Willingness Level to Read More Articles Regarding Working with Clients with Gambling-Related Problems

Willingness Level	Clients		Female Clients	
	%	n	%	n
Extremely Willing	30.8	32	31.7	33
Somewhat Willing	44.2	46	46.2	48
Neutral	19.2	20	17.3	18
Somewhat Unwilling	5.8	6	4.8	5
Extremely Unwilling	0.0	0	0.0	0

Table 22

Willingness Level to Attend Seminars, Workshops, or Conferences Regarding Gambling-Related Problems

Willingness Level	Clients		Female Clients	
	%	n	%	n
Extremely Willing	37.5	39	38.5	40
Somewhat Willing	39.4	41	38.5	40
Neutral	18.3	19	15.4	16
Somewhat Unwilling	4.8	5	5.8	6
Extremely Unwilling	0.0	0	1.9	2

Additional Analyses

The first analysis was conducted on Drebing et al.'s (2001) Hypothesis #1, which posited that practitioners have received minimal training or experience regarding working with PGS and thus do not report as feeling competent to assess or treat PGs. The current analysis was also based on Drebing et al.'s (2001) Hypothesis #4, which similarly speculated that training would correlate positively with experience, practice, and competence. As such, I hypothesized that training and competence would correlate

positively. The extent to which one felt they had been effectively educated and trained to work with clients who present with gambling-related problems and competence in evaluating, treating, and referring clients were examined as variables. All correlations were positive. The highest correlation was between competence in treating clients and one's education and training ($r = .42, p < .01$), evaluating was slightly less correlated ($r = .38, p < .01$) and referring ($r = .21, p < .05$) clients was the least strongly correlated. Regarding female clients in particular, the same pattern of results occurred. The highest correlation was between treating female clients and feeling effectively educated and trained to work with WPGs ($r = .38, p < .01$), while evaluating ($r = .34, p < .01$) was less strongly correlated. Competence for referring ($r = .13$) did not yield a significant correlation.

Dreb ing et al.'s (2001) Hypothesis #3 posited that psychologists who provide services to PGs have received more training in this area. This formed the basis for my hypothesis, which assumed that previous direct client contact in gambling would correlate positively with survey respondents feeling as though they had been effectively trained to work with clients and female clients in particular. This yielded positive correlations between client contact and feeling trained to work with clients ($r = .10$) and female clients ($r = .14$), although none were significant.

Dreb ing et al.'s (2001) Hypothesis #5 stated that recent graduates would have more experience and competence in working with PGs, due to increased awareness around this population. For this analysis, one's highest degree obtained thus far was compared with competence for treating clients. This analysis yielded nonsignificant and negative correlations between degree obtained and competence for treating clients

($r = -.03$) and female clients ($r = -.04$) in particular. I then correlated competence with the degree that respondents were currently obtaining, which yielded positive correlations for competence in treating clients ($r = .06$) and female clients ($r = .05$), although neither correlation was significant.

Christensen et al. (2001) provided a correlation analysis examining the level of interest in learning more about problem gambling with the frequency of the provider being told by a client of, having asked a client about, or identified an issue with gambling problems. As such, I hypothesized that these items would correlate positively. To test this, the previous experience with practicum client contact in gambling and level of interest in learning more about gambling-related problems was correlated. Interestingly, previous experience correlated negatively with interest in learning about gambling in clients ($r = -.19$; not significant) and female clients ($r = -.21, p < .05$) specifically.

Evaluation of Survey Research

Ways in which Creswell (2012) suggested to evaluate a survey research design are outlined here. First, I described the selection of the target population and why those individuals were selected. Second, I employed a systematic approach to identifying the sample in such a way that generalization to the overall population can occur. It was my intention that the emailed survey would utilize a random sampling strategy to ensure the findings would be as generalizable as possible. Third, the sample size should be large enough for conducting statistical analyses. While sample size requirements were estimated to ensure sufficient power and significant results, the survey did not generate as many participants as hoped. The implications of this have been discussed in Chapter 5. Fourth and fifth, the type of survey and survey instrument used in the study was

described. Sixth, the researcher should report the validity and reliability of past scores of the tools if applicable. While these scores were not available, reliability and validity have been discussed thoroughly throughout this thesis. Seventh, I discussed the survey administration and follow-up procedures and provided a systematic procedure for analyzing the survey data (Creswell, 2012).

Chapter 5: Discussion

In this chapter I attempt to frame the thesis within a broader context. I begin by briefly summarizing the purpose and method of the project. Significant limitations, strengths, implications of the results, and future directions will be followed with my main conclusions.

Purpose and Method

This thesis aimed to ascertain the levels of knowledge and training that graduate students currently enrolled in counselling psychology programs throughout Canada (i.e., future practitioners) receive in regards to PGs, and WPGs, specifically, using a cross-sectional survey. I based the survey on two previous studies that examined practitioner knowledge and training related to PGs (Christensen et al., 2001; Drebing et al., 2001). To my knowledge, the survey developed for this thesis was the first of its kind to examine this construct. I used alcohol use disorder as a comparison between a more researched area of addiction with one that has not been as thoroughly investigated (Grant, Potenza, et al., 2010).

I sent surveys out via email to eligible Canadian counselling psychology graduate programs. It should be noted that not all of the programs replied to the emails or administered the survey to their students. Many respondents began filling out the survey ($n = 151$) but did not complete it; thus, only the data from respondents who had completely filled out the survey were used in the data analysis ($n = 104$). Since the methods and results have been thoroughly detailed in Chapters 3 and 4 (respectively), the rest of this chapter will discuss the implications of the results, followed by the study's limitations and strengths.

Implications

The results of this survey have several implications for the knowledge and training regarding gambling disorders provided to Canadian counselling psychology graduate students. Based on the results and discussion of the survey, these implications have been discussed in the subsections that follow.

Distribution of respondents. The gender ratio for this survey was very heavily weighted towards females ($n = 96$; 92.3% of respondents), consistent with enrolment trends in related Canadian programs (Statistics Canada, 2013; Table 3 in Chapter 4). The gender distribution in the survey may also reflect general interest levels on the topic of WPGs or it is possible that females may be more likely to pay attention to the amount of knowledge and training they have regarding WPGs. It may be useful to replicate the survey in an attempt to have more evenly matched numbers of male and female respondents to determine whether a different pattern of results would occur.

The distribution of respondents across various provinces and schools is likely not representative of the stratification of enrolment numbers throughout Canada (i.e., the number of respondents from Ontario likely do not match the proportion or percentage of Canadian graduate students residing in Ontario). This is due, in part, to low survey participation numbers, but also to the fact that some schools chose not to distribute the survey or did not respond to emails regarding the distribution of the survey. Nevertheless, the survey managed to capture respondents from all of the provinces that contained eligible programs, providing a glimpse (albeit a small one, in some cases) into each province's levels of knowledge and training regarding WPGs.

Regarding the experience that graduate students have accrued with addictions interventions, less than half indicated having any (outside of their graduate programs, 42.3%; $n = 44$, associated with their graduate programs, 47.1%; $n = 49$). This may account for some variation in the rest of the survey responses as well. For example, if one has had a great deal of experience outside of their graduate program, the individual may be more likely to have read more about certain addictions. Furthermore, many of the participants had just begun their program, which may affect the results related to the amount of knowledge and training one has received through actual education. Nonetheless, the survey captured information from respondents at different stages in their programs, providing a slightly more representational sample.

In this vein, the majority of respondents indicated that they were in the process of completing their master's degrees, which may reflect a trend in the results, given that the higher one goes in education, the more specific the research and learning focus becomes. It is possible that the survey was asking about an area of research that is too narrow to have been focused on at a master's level.

Similarly, correlation analyses showed a lack of significant correlations between degree completed or currently being obtained and competence for treating those with gambling disorders. While neither correlation was significant, it is interesting to note that the correlation analysis looking at competence and degree already obtained yielded a negative correlation, while the correlation between degree currently being obtained and competence yielded a positive correlation. This could reflect a trend in that the further one goes in their education and training, the more positively—and perhaps eventually significantly—these two variables will correlate. That being said, one study that looked

at competency ratings of psychology practitioners during clinical placements found that the most significant and large changes in competency levels occurred in the earlier levels of training, compared to the later levels (Gonsalvez et al., 2015). The authors concluded that more research should be done in the area of competency evaluations; thus, further exploration is warranted for the link between competency and training.

This trend was mirrored in a separate analysis that looked at how competence in evaluating, treating, and referring clients would correlate with the extent to which respondents felt they had been effectively trained and educated to work with gambling clients. These analyses yielded positive and mostly significant correlations, suggesting that the more training one has, the more competent the individual feels in regards to working with gambling populations. Interestingly, for both clients in general and WPGs, the lowest correlations were in regards to referring clients. This may indicate that there is a lack of training available in programs in regards to referrals, or that there is a lack of knowledge as to whom the referrals would be directed towards. It is likely that there is a higher emphasis in programs regarding evaluating and treating clients, in comparison to referrals. All of these factors may have implications for how gambling research is approached in educational institutions and in training facilities for professionals.

Educational institutions and faculty. The outcome of this research may inform educational policies and curricula in Canada and hopefully improve the training available to Canadian graduate students who could work with WPGs. Overall, the results of the survey overwhelmingly suggest a need for more research into all areas of addiction, including gambling disorders, and specifically for women affected by these disorders. The numbers remained staggeringly low when respondents were asked about gender

differences in gambling. This is in direct contrast to the 80.8% ($n = 84$) of respondents who believe that gender differences exist in gambling disorders. Furthermore, correlation analyses suggest that education and competence in working with PGs are positively correlated. This could indicate a problematic trend in that programs have not yet designed curricula to address gambling disorders, indicating a gap in training for future mental health practitioners. This idea was supported by the 19.2% ($n = 20$) of respondents who reported not believing that these differences exist, as many respondents indicated that they chose this response because they did not know enough about the topic to say otherwise.

The majority of respondents were completing a master's degree at the time of survey administration (86.5%; $n = 90$; Table 7 in Chapter 4), which could indicate a lack of specialization at the level (e.g., it is possible that those in master's programs are not yet studying at a level at which a specific focus or specialization is warranted). As an example, perhaps those in master's programs are more likely to study gambling or addiction in general, and it is not until the doctoral level that they narrow the focus to WPGs. That being said, analyses indicated that the level of degree that respondents had, or were currently obtaining, was not significantly correlated with self-reported competence for treating PGs. This indicates that it may be less about the degree level that one is obtaining and more about perceiving that one has been sufficiently prepared.

Furthermore, the majority of respondents reported their specialty area to be counselling psychology (77.9%; $n = 81$). The survey results may have been affected differently had the majority of respondents specifically studied addictions and mental health; however, the numbers were lower for this specialty area of focus (15.4%; $n = 16$).

It is possible that those in programs dedicated specifically to addictions and mental health may have a greater focus on specific addiction disorders, although it is difficult to say, given that only 15.4% ($n = 16$) indicated addiction or mental health as their area of focus. Nevertheless, 11.5% ($n = 12$) of respondents had had experience with clients with gambling-related disorders, so the lack of training is likely an issue at the master's level.

Interestingly, previous experience with practicum client contact in gambling negatively and significantly correlated with interest in learning more about gambling in WPGs. This may be due to the fact that there are less WPGs at practicum sites (e.g., treatment centres); thus, students lose interest in learning more about this population given the lack of exposure to them. Related to this, a study found that women who called gambling helplines reported greater distress; however, men were twice as likely to engage in treatment after having contacted a helpline (Kim, Hodgins, Bellringer, & Abbott, 2016). Kim et al. (2016) also found that, after a 3-month follow up, both genders reported significantly improved outcomes. As such, the authors concluded that WPGs may require different approaches than men in encouraging them to access helplines and seek treatment, particularly earlier in their gambling progression, given the telescoping effect (Kim et al., 2016). Despite this, their results have also suggested that brief supports such as contacting helplines, may provide women with better outcomes, whereas men may need to engage in treatment to achieve the same improvement (Kim et al., 2016).

The low numbers of training revealed by this survey suggests that there is a need for educational institutions and programs to include more information on gambling and to provide further opportunity for students to study this area of research. Many students

who participated in this survey were beginning their programs and seemed relatively unaware of what they would be learning in regards to addiction and mental health disorders. As such, providing gambling, and gambling related to females in particular, as a viable topic for study and research is warranted in graduate programs. In this vein, the provision of courses that focus more specifically on addictions may be helpful, including a section provided on behavioural disorders.

This is directly related to the data that suggested less than 10% of respondents are prepared to work effectively with WPGs, based on their current levels of training and education. Specifically, levels of self-reported competence drop when it comes to treating individuals with gambling disorders, which could have negative and limiting consequences for those who do come into contact with these populations within a treatment setting, similar to Drebing et al.'s (2001) conclusions. Many of the respondents who reported being unprepared cited that this is because they have not had enough training in this area or have not progressed far enough in their degrees to know whether this training would be provided.

In a similar vein, previous direct client contact in gambling did not significantly correlate with respondents feeling as though they had been effectively trained to work with either clients or female clients. As such, it is possible that practicum requirements may not be adequate in preparing students for working with particular populations. There is a possibility that, alongside additional training in programs, practicum sites provide more specialized training opportunities as well. On the other hand, it is also likely practicums provide the necessary foundational and general training and that specialized training is more feasible once a student is a practicing professional.

Overall, the majority of respondents indicated some interest and willingness to engage in further training and knowledge acquisition on this topic. As such, it is imperative that some kind of additional training be developed for those who seek further education to work with PGs, WPGs, or both populations. It is perhaps not feasible to develop a program to insert into existing educational curriculums at this point in time, although it may be beneficial to begin developing extra training seminars and online courses that people can take, should they be interested and in need of further training.

This idea is further reinforced by the low number of respondents who had encountered some kind of training in the area of PGs, WPGs, and gambling in general (e.g., articles, conferences, etc.). Despite the small number of participants who had encountered further training in gambling, gender differences in gambling disorders, or both, it is clear that the majority of those who have been exposed to these materials and further training have found them helpful and are confident that they will contribute to their future work with PG and WPG populations. For example, the majority of respondents who had read about the topics (95.5%; $n = 85$ for alcohol and 90.9%; $n = 60$ for gambling) reported their reading had contributed to their knowledge in these areas and will contribute to their future competence as practitioners (93.3%; $n = 83$ for alcohol and 74.2%; $n = 49$ for gambling; Table 11 in Chapter 4).

Professional bodies and therapists. Alongside educational institutions and psychology programs, more professional development is also warranted. This would be beneficial to professors, who are gatekeepers for the topics that are studied in counselling psychology graduate programs, as well as for professionals currently working in the mental health and addictions fields. Given the relatively low numbers of training being

offered at a foundational level, it is likely that there is not a lot of training for professionals currently working in the field of gambling. This would benefit the professionals, their clients, and, furthermore, the results suggest that interest levels regarding additional training are high enough to warrant this.

Public awareness. While this study looked specifically at the formal knowledge and training that educational institutions are providing students regarding PGs, there is also a need to educate the public about the consequences of gambling disorders. It is hoped that more awareness translates into increased interest and advocacy for PGs, and particularly for specific groups of PGs, such as women. With a higher rate of interest in the topic, more research will likely be conducted and better treatments and programs will be made available for WPGs.

Discrepancy between alcohol versus gambling. Along with increased training and awareness for gambling in general, the discrepancy of training for various addictive disorders should be mentioned. Respondents indicated having had more direct client contact with clients presenting with alcohol-related issues when compared to gambling. This could be related to a lack of screening for gambling disorders at various practicum sites, a level of interest in the population suffering from gambling disorders, or could reflect a lower number of people suffering from gambling disorders, when compared to alcohol (Table 11 in Chapter 4). Despite gambling being considered a worthwhile topic deserving of further study, there is no focus on gambling in educational programs and little focus on training, compared to alcohol use disorders (Tables 10 and 11 in Chapter 4). While there is some overlap between gambling and substance use disorders, viewing

gambling disorders from an addiction perspective may negate the heterogeneity and individuality of PGs (Grant & Chamberlain, 2015).

In relation to further training (e.g., reading articles, attending conferences, etc.), participants' results were consistently higher in alcohol over gambling. The differences here could be explained by a variety of causes, including but not limited to, a difference in the amount of training material available for each topic, a disparity in interest levels, or a by-product of what the respondents were studying or learning at that time. However, these variances could also indicate that programs have not yet incorporated gambling material into their curricula to the extent that alcohol has been considered, indicating a gap in training. Despite this, the majority of respondents maintained that the training in either area contributed positively to their knowledge and competence.

Regarding beliefs about the existence and legitimacy of these two separate disorders, 100% ($n = 104$) of respondents believed that disorders related to alcohol use exist and 99.0% ($n = 103$) said the same for gambling-related problems. This suggests that the reduced amount of training, in comparison to alcohol, is likely not due to the fact that respondents do not believe that gambling is a worthwhile topic to study in relation to their current or future clients.

The standardized past-year prevalence rates of problem gambling in Canada are on average 1.8% (Williams et al., 2012). One study looked at the prevalence of problem gambling and alcohol use (Welte, Barnes, Wieczorek, Tidwell, & Parker, 2001). Regarding rates of pathological and problem gambling, males had a lifetime prevalence between 5.7% and 14.3%, depending on the measurement scale that was used, and females had rates between 3.9% and 8.9% (Welte et al., 2001). Regarding alcohol abuse

or dependence, males averaged 24.3% and females 12.2% (Welte et al., 2001). The authors found a higher prevalence of pathological gambling among ethnic minorities and those with lower socioeconomic status and males and young adults had higher rates of prevalence (Welte et al., 2001). A more recent study found a lifetime prevalence of alcohol use disorders to be 19.6% for males to 10.3% for females (Lev-Ran et al., 2013). While the prevalence rates seem to be higher for alcohol use, the similarities between the two disorders may also warrant further investigation of gambling in order to prevent prevalence rates from climbing. Grant and Chamberlain (2015) claimed that, by acknowledging the differences between gambling and alcohol use disorders, treatments may be more effectively tailored to individuals who need them.

Need for tailored treatments. Finally, the existing research and the results of this survey point to a need for further exploration of tailored treatments for WPGs. Research has been conducted on the merits of offering tailored treatments to those with psychiatric disorders based on the client's preferences for treatments (Becker et al., 2016; Cunningham et al., 2008; Swift & Callahan, 2009).

Respondents in this survey were asked what they believed contributed to gender differences in gambling disorders. Many reported that a mixture of biological and social influences were contributing factors. These results were in contrast to survey respondents who reported that they believed the genders were the same or that similarities in brain or addiction processes negated the gender differences in gambling disorders. I agree with Echeburúa et al. (2011), who suggested future research be conducted on tailoring treatments based on behaviour and psychological functioning of PGs. This is also in line with research on temporal sequencing suggesting that there are

multiple pathways that lead to the development of gambling disorders, which warrants the use of integrative and individually tailored treatment strategies (Holdsworth et al., 2012). The gender differences in temporal sequencing for men and women warrant further research into how treatments may differ for people whose gambling tends to be the primary disorder (males in general) versus those who report the opposite (females in general; Haw & Holdsworth, 2015).

In this vein, many respondents (66.3%; $n = 69$) reported that they believed that the gender differences in gambling disorders warranted tailored treatments for each gender. Many of those who expanded upon their responses also discussed the importance of offering tailored treatments in general, regardless of gender or disorder. Christensen et al.'s (2015) findings supported the need for further research into the reasons behind the steady increase of WPGs. In doing so, intervention strategies may be implemented that are targeted at specific groups, such as women (Christensen et al., 2015). Given the varying beliefs about the importance of providing tailored treatments for WPGs, and the ongoing debate on whether or not gender differences impact gambling addiction, further evidence-based research on this topic would be beneficial.

Furthermore, the chi-square analyses revealed an interesting trend related to questions pertaining to RQ4 (competence, comfort, preparedness, and effectiveness of training and education related to working with clients and female clients) and RQ5 (willingness and interest to learn more about clients and female clients suffering from gambling-related issues). In general, responses to the different client types appeared related (i.e., if a participant responded negatively to a question pertaining to clients, it is likely that they responded the same way for female clients). This trend in responses

further supports the need to continue to study and highlight gender differences in gambling, given that survey respondents did not acknowledge a difference between clients and female clients. The general lack of differences between answers for gambling clients and answers for female gambling clients suggest that future counsellors may see gamblers as homogenous. Increasing the literature and scientific findings on this topic may provide clarity as to why gamblers are a heterogeneous group, why WPGs need different treatments, and what may be the best way to begin formulating tailored treatments for this unique population. I discuss further areas of future exploration in a subsequent section.

Limitations and Strengths

As with any research endeavour, there are limitations and strengths associated with this thesis project. I outline these in the order of Creswell's (2012) steps for conducting and evaluating a survey research design. Some of these can and should be considered in replications of this study or in future administrations of the survey.

Survey design and research questions. A cross-sectional survey design was used to ascertain the knowledge and training that Canadian graduate students receive regarding gambling in counselling psychology programs, enabling data to be collected efficiently and easily. This design is typically used when there are no hypotheses stated a priori. Since this was the first survey of its kind to explore this topic, it was best suited towards asking and answering RQs. While it is difficult to make inferences based on the results of a snapshot of respondents at one point in time, this design is conducive to forming and testing hypotheses, which can allow for generalization to the larger population more easily than RQs (Creswell, 2012). The rationale for this study design

was presented in Chapter 3, providing in-depth exploration of the strengths of using surveys for this research (e.g., increased ability to ensure validity and reduce administration errors). Furthermore, consulting two previous surveys that measured a similar construct (Christensen et al., 2001; Drebing et al., 2001) saved time in the survey development stage.

Population and sample. In this section I discuss how the selection of the target population was both a strength and limitation of this research. I also explain how the sample size impacted the research findings.

Selection of target population. Limiting confounding factors associated with other geographical areas or programs (i.e., outside of Canada) reduced the number of potential respondents, although it also provided a more accurate portrayal of my target population. Eligibility criteria (e.g., over 18, in a recognized Canadian counselling psychology graduate program) ensured that a unique and specific sample was surveyed.

Sample. I emailed the survey link to multiple Canadian universities in an attempt to capture a varied sample to reduce sampling error. The initial goal was to have 250 respondents. Unfortunately, the survey did not capture a large enough sample of participants to be representative of, or generalize the results to, the overall population of graduate students in Canadian counselling psychology programs and the statistical power of the survey was likely reduced (Streiner & Norman, 2008). Offering an incentive or compensation for participation may have increased response rates and should be considered in future replications of this survey. An important consideration is the fact that those who participated in the survey may have done so based on a pre-existing interest in the topic (e.g., research or thesis focus on gambling). This is a possibility

given that 11.5% ($n= 12$) participants indicated having attended workshops, seminars, or conferences on gambling-related problems. If this is the case, the numbers given for amount of training and knowledge acquired may reflect higher percentages than actually exist in these programs.

Development of instrument. Regarding the development of the survey, I found no previous surveys that explored this type of question; thus, there were no available gold standard measurement tools by which to measure this thesis survey (Creswell, 2012; Streiner & Norman, 2008). Reliability and construct validity should be considered when developing a new survey that is based off of older measurement scales (Creswell, 2012; Streiner & Norman, 2008), although no data were provided regarding the reliability and validity of one scale (Drebing et al., 2001), and the other survey's authors acknowledged that their survey was not conducive to generalizing to the larger population and provided no further data regarding the reliability and validity of their scale (Christensen et al., 2001). Each of these studies also discussed limitations associated with their surveys, which may have also impacted the development of this survey.

Focus groups were not used in the development of this survey, although future replications of this study should incorporate group methods to improve the survey further (Streiner & Norman, 2008). That being said, the survey did undergo evaluation and testing with my committee members, and I incorporated their feedback into the final version of the survey. It may have been helpful to operationally define certain terms for survey respondents, including gambling-related problems, alcohol use-related problems, and direct client contact. It may have also been useful to use alcohol use as a comparison

to gambling in the third survey section; however, the alcohol-related questions were removed in this section to reduce the length of the survey and the chances for attrition.

Administration of survey and data collection. In this section I discuss the strengths and limitations of the sampling strategy I employed. I also review the strengths and limitations related to the online survey.

Sampling. Perhaps the largest limitation associated with the sampling strategy (i.e., using an online survey and emailed links to recruit participants) is the fact that recruitment efforts and reminder emails did not result in all eligible programs agreeing to participate. Several universities chose not to distribute the survey, while others did not respond to the emails. Furthermore, it was difficult for me to know how many people received the survey, thus hard to determine response rate. In addition, it is possible, although unlikely, that some participants may have responded more than once. These limitations may have been mitigated had recruitment occurred in person at each organization, or if graduate student associations had been contacted in addition to departments.

However, online recruitment and survey dissemination were conducive to attaining larger numbers of participants, given that it was not feasible to travel to each program individually in order to recruit participants. The fact that the survey was delivered via department administrators also ensured an extra layer of confidentiality, as I never directly contacted individual students. Another strength is the fact that participants entered their own data in order to complete the survey, eliminating bias and human error associated with other kinds of administration (e.g., face-to-face interviews, data entry). While coverage error was likely not completely eradicated, given that some schools

chose not to participate, eligible programs were contacted with relative ease due to the online administration and contact via email. Furthermore, I was able to issue reminder emails to avoid errors that may be associated with nonresponse, such as a program administrator forgetting to send the survey out (Creswell, 2012).

Online survey. I administered the survey using SurveyMonkey® (2016), an online tool, which enabled participants to also complete the survey anywhere a computer was available. The online format and administration allowed the survey to be sent to many students with ease, allowing for economical data collection, reduced administration errors and biases that are more common with face-to-face interviews, and allowed for each program to be contacted individually, resulting in minimal issues associated with spam filters blocking mass messages (Streiner & Norman, 2008).

Furthermore, SurveyMonkey® (2016) allowed for privacy measures to be taken, including password-protected accounts and the ability to easily and safely export the data. The online format that encompasses drop-down windows gives the survey a less cluttered look (Streiner & Norman, 2008). This also allowed for the potential for more honest reporting by participants, particularly around competency and comfort in working with WPG populations, as evidence suggests that people are more likely to be honest in a computer administered survey rather than an interview (Streiner & Norman, 2008). I had planned for the survey to take approximately 20 minutes for participants to complete, which likely reduced fatigue and drop-out rates of the respondents. Moreover, the short administration time was beneficial to conducting research within a 2-year time frame, as it enabled a faster turnaround time for surveys to be submitted (Streiner & Norman, 2008).

While online surveys may eliminate some of the advantages associated with pen and paper surveys (e.g., allowing respondents to see how many questions are left, the ability to skip forwards and backwards, and to change answers easily), this particular survey was designed in such a way that allowed respondents to perform these actions should they need to. Streiner and Norman (2008) reported that lower response rates have been associated with emailed and online surveys when compared to pen-and-paper surveys (p. 354). Ultimately, emailed surveys may have resulted in nonrandom sampling, and there may have been technology malfunctions (e.g., varying capabilities of web browsers) or security concerns that further reduced participation (Creswell, 2012; Streiner & Norman, 2008). Asking respondents to self-report may have also eliminated the ability to look at other aspects of answers (e.g., body language), and closed-answer options may have limited the information gathered (Creswell, 2012).

Finally, there is the potential that this approach eliminated a small number of potential participants without a computer or Internet access; however, I did not expect this to be a significant issue. As the contacted participants were attending a Canadian educational institute, it is likely that they all had reasonable access to the survey emails and the means by which to complete the survey.

Data analysis. SurveyMonkey® (2016) allowed me to download all of the data into one Microsoft Excel spreadsheet, reducing human errors associated with data entry. The nature of the data was not conducive to more complicated statistical analyses, given that the RQs were answered through descriptive statistics for the most part. Furthermore, other statistical procedures (i.e., factor analysis) require a larger sample size.

Reliability. This was the first survey to examine graduate students' knowledge and training relating to PGs and WPGs. As such, additional administrations of the survey are necessary in order to conduct reliability analyses that measure the stability of the instrument, such as interobserver, intraobserver, and test-retest reliability (Streiner & Norman, 2008).

Internal consistency is based on one survey administration, relates to the individual items in the survey, and allows researchers to determine whether individual questions are correlated or measuring similar concepts (Streiner & Norman, 2008).

Reliability analyses were conducted for various subscales and ranged from very low to ideal. Scores that fall below 0.8 require further investigation and testing. In addition, had additional people taken the survey, exploratory factor analysis (EFA) would have been utilized to see which survey items loaded onto which factors. For future replications of this study, EFA should be considered before the dissemination of the survey, as it can remove redundant or irrelevant variables that appear to measure the same constructs, thereby shortening the survey (Streiner & Norman, 2008; Suhr, n.d.).

Validity. Face validity, content validity, and construct validation were ensured to the best of my ability and have been discussed in Chapter 3. This survey was the first of its kind to measure knowledge and training of Canadian counselling graduate students; thus the intention was to establish a baseline of knowledge. As per the literature review, I found little information on the topic that the survey was attempting to examine. Given the lack of information available, the construct validation of the survey may be low. Measures of criterion validation were not ascertained, as this survey was unique and opening the field to a novel study.

Response rate. Unfortunately, I found response rate difficult to calculate.

Potentially all eligible students had access to the survey, although it is unclear as to whether all contacted universities distributed the survey, due to lack of response from some of them. Response bias (i.e., responses do not reflect sample or population) may have occurred given the low return rate (4.3%; Creswell, 2012). The responses did not meet the original goal of 250 participants; thus, the survey sample may not be generalizable to a larger population and statistical power is less likely.

Survey RQs. Regarding the results of each RQ, answers may have differed given a variety of factors. These may be considered limitations or strengths of the survey and will be discussed below.

RQ1. It is possible that respondents did not accurately reflect the true stratification of the target population. This may have skewed results.

RQ2. Answers may have differed had another comparison been made between gambling and another substance use disorder (i.e., opioid addiction) or between gambling and another behavioural disorder (e.g., sex addiction). However, I chose alcohol use as a comparison given the availability of material on the subject as well as the fact that it is a more heavily researched area of study.

Furthermore, answers may have differed based on the sample's experiences. Many of the respondents indicated having had no client experience at the time of the survey, and over 50% had no experience with addictions interventions. The lack of cohesive response regarding experiences may account for some variation within the responses as well. For instance, a student who has received more education or practicum experience may have also been exposed to more articles, knowledge, and training

opportunities overall. It may have been helpful to limit the survey respondents to a specific level of education (e.g., master's level) or even a specific year (e.g., second year). Moreover, if I had surveyed clinicians working in the field, responses may have reflected a more accurate representation of feelings of competence and comfort in working with the PG and WPG populations.

In a similar vein, the majority of respondents indicated having seen clients in out-patient settings. This may also have an impact on the results as the answers may have differed had the respondents had more experience in in-patient settings. It is important to note that I did not ask respondents whether specific practicum settings assessed for, or treated, gambling specifically, which would be an area of further exploration.

Another area of exploration that was not addressed in this study was what respondents' training had focused on. The nature of the survey focused on specific areas of training, but neglected to ask what the majority of the training supplied by programs focused on. For example, it would be helpful to know whether the expected 7.3% of graduate school training in alcohol use-disorders is actually proportionate to training given for other specific disorders. In a similar vein, it would be beneficial to know how the graduate school and practicum training relates to the other forms of training (e.g., reading articles, attending conferences, etc.), to determine whether the reported training corresponded to actual requirements of the programs or are more so related to the general interests of the respondents (e.g., reading completed outside of program requirements).

Future replications of this study may find it useful to determine whether there is a correlation between the results of this survey and how it relates to future work in the field

(i.e., predictive validity). For example, longitudinal studies examining the training received and the corresponding competence levels for working in the field would be helpful.

RQ3. There may be certain aspects of the responses in RQ3 that also point to limitations within the project or the survey. For instance, 99.0% ($n = 103$) of respondents believe there are gambling-related problems, although only 80.8% ($n = 84$) believe that gender differences exist within gambling. This could point to a higher awareness of gambling, but less of an awareness about the gender aspect of gambling, which may have been helpful to inquire about in the survey.

Furthermore, the pattern of responses suggested that participants consider social influences to be more likely to affect gender differences than biological. If this is the case, it is possible that there is more of an emphasis on societal impacts on gender over biological influences in programs. In addition, societal influences may have played a part in the responses themselves. These may have also been worthwhile avenues for exploration.

While I intended to compare alcohol use and gambling disorders in this section, as in the second survey section, this would have made the survey too long. In that regard, there may be a lack of ability to gauge the degree to which gender differences in addiction are explored in graduate programs. Nevertheless, the survey was able to ascertain a baseline for gambling and alcohol in general. Given that the survey's focus was gambling, the intent was to reduce survey drop out and gain information specifically on training and knowledge of gambling-related gender differences.

While the numbers are low in regards to training in the area of gender differences in gambling, this research was conducted within a very specific area of focus. Once again, it would be helpful to have a gauge of how much training in this area would be beneficial, without being out of proportion with other relevant topics in these programs.

In this vein, participants' responses indicated little reading and training have been offered within counselling graduate programs on this topic. It would be helpful to know whether this is due to curriculum constraints, interest in topic, or lack of focus on this topic overall. Important to note is that, even though respondents indicated no focus on gambling, they did indicate having engaged in other training regarding gambling (e.g., article, mass media, conferences).

RQ4. The majority of respondents indicated that they felt comfortable asking female clients about gambling-related problems. It may have been helpful to also ask about comfort levels regarding evaluation, assessment, treatment, and referral. However, in the interest of reducing survey length and eliminating redundancy of questions, I inquired about these aspects of treating PGs in relation to competence.

RQ5. It may have been helpful to ask survey respondents, who indicated being interested and willing to learn more about WPGs, what they would consider to be helpful for additional training. Future replications could determine what would increase future practitioners' feelings of being prepared to support populations dealing with gambling issues, particularly females.

Future Research

Future directions for research in this area have been alluded to within the strengths and limitations section of this thesis. Furthermore, Chapter 2 provides a section

that discusses various ways in which to improve research in the realm of gambling, and WPGs in particular. In addition, future directions could include conducting surveys similar to this one, keeping the limitations and strengths identified above in mind. For instance, surveying those already working in the field of mental health and addictions (e.g., current counsellors or psychologists) may be useful. A survey such as this could address where gaps in assessment, knowledge of gambling disorders, and treatment practices exist. It may also be interesting to survey counsellors on what drew them to the field of gambling, given the lack of program focus on this area.

In addition, the chi-square results revealed a few instances in which there was a difference indicated between responses for clients in general and responses for female clients. It would be informative to speak to those who acknowledge the differences between gambling clients, related to gender. This could provide helpful information in developing new training materials for working with WPGs for future counsellors.

Future surveys could address WPGs themselves and ask whether they feel as though there should be changes made in treatment practices. In this vein, asking WPGs what their preferences are for treatment may be useful as well. This has been done with a variety of mental health disorders with great success (Becker et al., 2016; Cunningham et al., 2008).

Focus groups, pilot testing, and EFA of the survey would be beneficial for future administrations and developments of the survey, as it would aid in removing unclear or redundant items, improving content validity, allowing broader inferences to be made about the survey results. Focus groups would also be helpful in determining what students would like to learn more about in order to better prepare them to work with PG

and WPG populations. The results of this survey indicated that counselling psychology graduate students receive very little, if any, training in gambling disorders and that respondents desire more training, although there is only moderate interest in further professional development (i.e., learning more). As such, utilizing focus groups may reveal what additional preparation would be ideal for graduate students in counselling psychology programs, ensuring maximum utilization of the training opportunities (i.e., tailoring training to the preferences of those who will be accessing it). Finally, it may be helpful to replicate this study at another time and potentially with a new group of students to determine whether curricula are changing or whether different results may occur. Program and curriculum evaluation would be another useful avenue of future research.

Conclusion

The results of this study suggest that counselling psychology graduate programs have little to no program focus on gambling or WPGs. This is seen in relation to the focus on alcohol use disorders. Due to this, survey respondents indicated that they do not feel prepared to work with PGs, and WPGs in particular. However, it was clear that respondents who had engaged with other training (e.g., articles, conferences, mass media) found that it improved their self-reported levels of competence, comfort, and preparedness in working with these populations. I also noted a trend in the responses that indicated that survey respondents desire further training in this area. There needs to be increased awareness and research made available to graduate students in Canadian counselling psychology programs regarding WPG populations. I project that the provision of extra training will allow for more effective and tailored approaches to be

developed for working with WPGs and for WPGs' experiences to be ameliorated when seeking treatment.

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Appendix A: Emailed Letter for Departments

To Whom It May Concern,

My name is Mackenzie Becker, and I am a graduate student at the University of Lethbridge completing a Masters of Education in Counselling Psychology. I am writing to ask if you would be willing to disseminate an online survey to all of the counselling psychology graduate students enrolled at your academic institution. You are being invited to do so because all graduate students who are 18 years or older and currently enrolled in recognized Canadian counselling psychology graduate programs are being contacted to complete this survey. Please note that this survey is only available in English at this time.

I ask that you kindly forward the letter and survey link to your counselling psychology graduate students. You can do so by copying and pasting the text *below* into the email you send to your students. I have attached a sheet briefly explaining the purpose of my research that you may also send to your students. Please let me know when you have forwarded the email to your counselling psychology graduate students and / or you have any questions or concerns. Your assistance in this endeavor is very appreciated.

In short, the purpose of my thesis is to determine the level of knowledge and training that current counselling psychology graduate students have with regards to problematic gambling, specifically in terms of gender differences. The study is described in more detail in the online consent form, which can be found on the first few pages of the online survey, as well as on the sheet attached to this email. The research is being conducted under the supervision of Dr. Noëlla Piquette. This study is funded by the Alberta Gambling Research Institute and has been approved by the Faculty of Education

Human Subject Committee at the University of Lethbridge, University of Calgary Conjoint Faculties Research Ethics Board, University of Regina, and Adler University Research Ethics Boards.

At any time, you can contact the researcher and the supervisor at their emails and/or phone numbers, which can be found below this text. You may also contact the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge ([telephone number]) to verify the ethical approval of this study, or raise any concerns. Participants may also contact the Assistant Dean of Graduate Studies and Research, Dr. Kerry Bernes, at [telephone number]. Additionally, if you have any concerns about the way you have been treated as a participant, you may also contact the Research Ethics Analyst, Research Services Office, University of Calgary at [telephone number]; email: [email address].

Thank you very much for your time and consideration.

Sincerely,

Mackenzie Becker

Email: [email address]

Phone: [telephone number]

Noëlla Piquette

Email: [email address]

Phone: [telephone number]

Study name: Canadian Counselling Psychology Graduate Student Knowledge of Women
Problem Gamblers

Appendix B: Survey Invitation to Participants

*****DEPARTMENTS, PLEASE COPY AND PASTE THE TEXT BELOW TO**

FORWARD IN AN EMAIL TO YOUR COUNSELLING PSYCHOLOGY

GRADUATE STUDENTS.

THERE IS ALSO AN ATTACHED PAGE BRIEFLY SUMMARIZING MY

RESEARCH THAT YOU MAY INCLUDE IN THE EMAIL TO YOUR

STUDENTS***

Dear Counselling Psychology Graduate Students,

My name is Mackenzie Becker, and I am a graduate student at the University of Lethbridge completing a Masters of Education in Counselling Psychology. I am writing to ask if you would be willing to complete an online survey that is part of my thesis. You are being invited to participate in this study because any and all graduate students who are 18 years or older and currently enrolled in recognized Canadian counselling psychology graduate programs are being contacted to complete this survey. Please note that this survey is only available in English at this time.

Your participation in this research is very appreciated. With your help, we can add to the research being conducted on women problem gamblers (WPGs) and ultimately contribute to improving the quality of care that they receive. If you agree to participate in this study, you will complete an online survey questionnaire (which will take approximately 20 minutes). The survey will ask questions regarding your training and education about WPGs and alcohol use disorders (a more researched area of study to be used as a comparison).

Your participation in this research must be completely voluntary. Should you

decide to participate and then change your mind, you may withdraw your participation at any time with no consequences to you. Only fully completed and submitted surveys will be retained for the data analysis and included in the results of this study. A more detailed description of the study is available in the consent form, which is on the first few pages of the online survey. Your consent will be indicated by your proceeding to the survey after having read the consent form (i.e., clicking the 'Next' button at the bottom of the page titled 'Consent Form' to proceed to the survey).

To participate in this survey, click this link:

[website link]

In short, the purpose of my thesis is to determine the level of knowledge and training that current counselling psychology graduate students have with regards to problematic gambling, specifically in terms of gender differences. The study is described in more detail in the online consent form, which can be found on the first few pages of the online survey. The research is being conducted under the supervision of Dr. Noëlla Piquette. This study is funded by the Alberta Gambling Research Institute and has been approved by the Faculty of Education Human Subject Committee at the University of Lethbridge, University of Calgary Conjoint Faculties Research Ethics Board, University of Regina, and Adler University Research Ethics Boards.

At any time, you can contact the researcher and the supervisor at their emails and/or phone numbers, which can be found below this text. You may also contact the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge ([telephone number]) to verify the ethical approval of this study, or raise any concerns. Participants may also contact the Assistant Dean of Graduate Studies and

Research, Dr. Kerry Bernes, at [telephone number]. Additionally, if you have any concerns about the way you have been treated as a participant, you may also contact the Research Ethics Analyst, Research Services Office, University of Calgary at [telephone number]; email: [email address].

Thank you very much for your time and consideration.

Sincerely,

Mackenzie Becker

Email: [email address]

Phone: [telephone number]

Noëlla Piquette

Email: [email address]

Phone: [telephone number]

Study name: Canadian Counselling Psychology Graduate Student Knowledge of Women

Problem Gamblers

Appendix C: Survey Preamble, Consent, and Questions

Canadian Counselling Psychology Graduate Student Knowledge of Women Problem

Gamblers (WPGs) Survey

Welcome to my survey

The following pages will detail the purpose of this research study, details of your participation, any risks to you, how the data will be used, and the consent form.

It is not until you click the 'Next' button on the page titled 'consent Form' that you will be providing your consent to participate in this study.

Thank you for participating in my survey. Your feedback is important.

Purpose of research

You are being invited to participate in a study entitled ‘**Canadian Counselling Psychology Graduate Student Knowledge of Women Problem Gamblers**’ that is being conducted by Mackenzie Becker. Mackenzie is a graduate student in the Faculty of Education at the University of Lethbridge and you may contact her if you have further questions by email at [email address] or by phone at [telephone number].

As a graduate student, Mackenzie is required to conduct research as part of the requirements for a degree in Counselling Psychology (Masters of Education). This research is being conducted under the supervision of Dr. Noëlla Piquette. You may contact her by email at [email address] or by phone at [telephone number]. Participants may also contact the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge ([telephone number]). Please note that this project has received ethics approval from the Faculty of Education Human Subject Committee at the University of Lethbridge, University of Calgary Conjoint Faculties

Research Ethics Board, University of Regina, and Adler University Research Ethics Boards.

This research is being funded by Alberta Gambling Research Institute Scholarship Award (Master's level scholarship).

The purpose of this research project is to:

- Determine the level of knowledge that current counselling psychology graduate students have in regards to problematic gambling, specifically in terms of the gender differences within this population.
- This project will compare the current knowledge of counselling psychology graduate students in problem gambling and alcohol use disorders (a more heavily studied area of study to be used as a baseline).
- This research will inform the gambling research community in Canada, the educational institutions, and students that will participate in this research.
- This will highlight gaps in knowledge and current curriculums. It will also initiate discussions regarding ways in which to fill these gaps in knowledge.
- This will encourage and support the continuation of improving the knowledge of graduate students throughout Canada, specifically in regards to problem gambling and the gender differences in gambling disorders.

Research of this type is important because:

- It will add to the small amount of research that has, thus far, been conducted within the realm of graduate students (i.e., future practitioners) knowledge of gambling.
- In addition, it will add to the research conducted in the fields of addiction, mental

health, and counselling psychology, and more precisely, to the treatment of gambling disorders.

- Moreover, this research may have the added benefit of shedding light on potential barriers to treatment and informing policy considerations and initiatives.
- This could impact the governmental organizations, training facilities, and psychologist associations who are also invested in this field.
- Perhaps most importantly, it will have a positive effect on women problem gamblers (WPGs) and their future counselors.

Your participation

You are being asked to participate in this study because any and all graduate students who are 18 years or older and currently enrolled in recognized Canadian counselling psychology graduate programs are being contacted.

By clicking on the 'Next' button at the bottom of the page titled Consent Form, you will be consenting to participate in this survey.

- You will have the option to exit the survey at any time with no consequences. You can do so by clicking on the button at the top right hand side of this page that says 'Exit this survey'. This button will appear on all of the survey pages, should you wish to discontinue with the survey at any point after you have begun.
- There is a bar at the bottom of each page indicating how much of the survey you have completed in percentage form. Only fully completed surveys that are submitted by clicking the 'Done (Submit survey responses)' button on the last page of the survey will be electronically retained and included in the data analysis procedures and descriptive sample data.

If you agree to voluntarily participate in this research, your participation will include completing an online survey questionnaire.

- This questionnaire is comprised of four sections with approximately 98 questions in total.
- Participants complete the on-line survey at their convenience and in any location of the computer from which they access the on-line survey.
- The survey will be available for completion until December 15, 2015¹.

Risks of participating in this study

Participation in this study may cause some inconvenience to you, including the time required to fully complete the online survey (approximately 20 minutes). This inconvenience is mitigated by the fact that all participants have the option to click the button at the top right hand side of each page that says 'Exit this survey'. There are no consequences for doing so.

There are no known or anticipated risks to you by participating in this research.

There are potential benefits of your participation in this research:

- Participants who fully complete the survey will have the benefit of contributing to the minimal information available pertaining to the current knowledge of graduate students in counselling psychology programs regarding problem gambling and alcohol use disorders, as well as any gender differences inherent in these disorders.
- This may inform educational policies and curriculums, current practices, and the

¹ Originally, the survey was scheduled to be available online until December 15, 2015. The necessary ethics amendments were made and the availability of the survey was extended until January 30, 2016.

overall best treatments for these populations.

Your participation in this research must be completely voluntary.

- If you decide to participate and then change your mind, you may withdraw your participation at any time without consequences or any explanation.
- If you do withdraw from the study before submitting the completed survey, your data will be discarded.
- Only the surveys that have been fully completed and submitted will be retained for data analysis and included in the results.

In terms of protecting your anonymity, no emails, passwords, names, or birth dates will be required in order to complete the online survey.

- The survey will ask you about your level of education, program, and school, but will not need specific personal information (e.g., student number, name, etc.).
- The individual responses will not be reported or published, but rather, data will be reported as an aggregate (e.g., number of males vs. females who completed the survey, number of Albertan students versus those in Manitoba).

Your confidentiality and the confidentiality of the data will be protected by any means possible.

- Personal information such as names and birth dates will not be collected.
- Other potentially identifying information (age, gender, school, program) will be accessible only to the graduate student and her supervisor.
- All survey response data will be stored on the Survey Monkey site, which is password protected. Only the graduate student and her supervisor will be able to access the site and export the data. The data that is exported from the on-line

surveys will be stored electronically on the graduate student's laptop computer and kept secure and anonymized throughout the study.

- If memory sticks are used, they will be kept in the graduate student's possession at all times.
- Any files in print format will be stored in a locked file cabinet.

This survey does not explicitly ask for information that may result in a breach of confidentiality (i.e., disclosure of child abuse).

- However, there are some open-ended questions where typed answers are required.
- Should you indicate somewhere in the survey (e.g., open-ended questions) one of the situations in which your confidentiality may be breached, the researcher will seek legal counsel and proceed accordingly.

Data uses

Data will be used in the student's thesis, publications based on the thesis, and subsequent presentations (conferences, classroom-based discussions, and so forth) based on the thesis. The data may be used by faculty members or programs to inform curriculum and policy changes. The data may be used by the researchers to inform further studies or projects regarding graduate students' knowledge surrounding problem gambling.

Data from this study will be disposed of after a period of 5 years. The data will be fully and securely destroyed by either shredding or electronic file deletion.

It is anticipated that the results of this study will be shared with others in the following ways.

- First, the results of the survey will be shared at academic conferences.

- Second, the student will present the final research project at her thesis defense.
- Third, the survey results will likely be published at some point in the future.

Consent Form

Consent Form

In addition to being able to contact the researcher and the supervisor at their provided emails or phone numbers (on the second page of this survey), you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge ([telephone number]). Participants may also contact the Assistant Dean of Graduate Studies and Research, Dr. Kerry Bernes, at [telephone number].

Additionally, if you have any concerns about the way you have been treated as a participant, you may also contact the Research Ethics Analyst, Research Services Office, University of Calgary at [telephone number]; email: [email address].

By clicking on the ‘Next’ button at the bottom of this page and by completing and submitting this survey, you are indicating that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

RQ1: What is the demographic profile of survey respondents?^{2,3}

² All survey questions required a response except #56, #88, and #90. If a survey participant did not provide a response for the other questions, they were met with messages similar to these: “This question requires an answer,” “This question requires an answer. If you have not had any direct practicum client experience, please enter the number 0.”

³ Some questions required specific answers. If the wrong format was entered, they would be met with messages similar to these: “The comment you entered is in an invalid format. Please enter a number (e.g., 2),” “The comment you entered is in an invalid format. Please enter a number between 0 and 100,” and “The comment you entered is in an invalid format. Please type in the name of your program/degree.”

Survey Respondent Demographic Information

- 1) Your gender^{4,5}**
 - a. Male
 - b. Female
 - c. Other (please specify)

- 2) Your age (e.g., 21)⁴**
 - a. A whole number between 0 and 100

- 3) The school are you currently attending. If your school did not appear in the drop-down list, please select 'other' and enter the name of the school in the space provided⁶**
 - a. Acadia University
 - b. Adler Professional School of Professional Psychology (Vancouver campus)
 - c. Athabasca University
 - d. Brandon University
 - e. Briercrest College and Seminary Marriage and Family Counselling
 - f. City University (Calgary)
 - g. City University (Edmonton)
 - h. City University (Vancouver)
 - i. City University (Victoria)
 - j. Concordia
 - k. Gonzaga University
 - l. Laval
 - m. McGill University
 - n. Memorial University of Newfoundland
 - o. Saint Paul University
 - p. Simon Fraser University
 - q. St. Stephen's College (affiliated with University of Alberta)
 - r. Thompson Rivers University
 - s. Trinity Western University
 - t. Tyndale Seminary
 - u. Université de Saint-Boniface
 - v. Université du Québec à Trois-Rivières
 - w. Université du Québec en Abitibi-Témiscamingue
 - x. Université du Québec en Outaouais
 - y. University of Alberta
 - z. University of British Columbia (Vancouver)
 - aa. University of Calgary

⁴ Drebning et al. (2001) survey.

⁵ Christensen et al. (2001) survey.

⁶ New question designed by the researcher for the current survey's purpose.

bb. University of Guelph
 cc. University of Lethbridge
 dd. University of Manitoba
 ee. University of Moncton
 ff. University of Montreal
 gg. University of New Brunswick (Saint John)
 hh. University of New Brunswick (Fredericton)
 ii. University of Northern British Columbia
 jj. University of Ottawa
 kk. University of Québec in Montreal
 ll. University of Québec in Rimouski
 mm. University of Regina
 nn. University of Saskatchewan
 oo. University of Sherbrooke
 pp. University of Toronto
 qq. University of Victoria
 rr. University of Winnipeg
 ss. Western University
 tt. Wilfrid Laurier University
 uu. Other - please enter the name of your school below:

- 4) The name of your current program / degree (e.g., Master of Counselling Psychology with a Special Focus on Addictions and Mental Health; Doctor of Psychology)⁶**
 - a. Answer should be a specific length between 0 and 5000 characters
- 5) The highest degree you have obtained thus far⁴**
 - a. Undergraduate
 - b. Masters
 - c. Doctorate
 - d. Other (please specify)
- 6) The degree level you are currently obtaining⁶**
 - a. Masters
 - b. Doctorate
 - c. Post-doctorate
 - d. Other (please specify)
- 7) Is there a focus on addiction-related problems within your current program / classes?⁶**
 - a. Yes
 - b. No
- 8) Is there a specific focus on alcohol use-related problems within your current program / classes?⁶**
 - a. Yes

- b. No
- 9) Is there a specific focus on problematic gambling-related problems within your current program / classes?⁶**
- a. Yes
 - b. No
- 10) Choose the specialty area that you are currently studying / the area that is the focus of your final thesis, project, or research (pick the option or options that most apply to your current situation)⁴**
- a. Clinical psychology
 - b. Counselling psychology
 - c. Addictions / mental health
 - d. Neuropsychology
 - e. Geropsychology
 - f. Rehabilitation / vocational
 - g. Health
 - h. Administration
 - i. Other (please specify)
- 11) Have you had any previous experience with addictions interventions – outside of your graduate program (i.e., employment, volunteer)?⁶**
- a. Yes (continue to question 12)
 - b. No (skip to question 13)

Previous Experience with Addictions Interventions

- 12) In regards to the previous question, how many hours have you spent either working or volunteering in addictions interventions outside of your graduate program? Please enter a number (e.g., 2). If you do not know how many hours, type 'Unknown'.⁶**
- a. Answer should be a specific length between 0 and 5000 characters
- Previous Direct Practicum Client Contact
- 13) Have you had any previous direct practicum client contact – associated with your graduate program?⁶**
- a. Yes (continue to question 14)
 - b. No (skip to question 18)

Practicum Client Information

Note that this section is only asking about direct practicum client contact associated with your graduate program (i.e., if you have completed a practicum for your degree requirements). Please refrain from answering based on outside employment or volunteer client contact.

14) Number of hours you have spent in direct practicum client contact⁴
 a. A whole number between 0 and 10,000

15) Number of practicum clients you have seen in total¹
 a. A whole number between 0 and 10,000

16) In what setting(s) have you seen practicum clients (choose any and all that apply)⁶
 a. In-patient
 b. Out-patient
 c. Unknown
 d. Other (please specify)

17) Approximate number of female practicum clients seen. If you have had direct practicum client experience, but none of them were females, please enter the number 0.⁶
 a. A whole number between 0 and 10,000

RQ2: What knowledge and training is provided to graduate students in recognized Canadian counselling psychology graduate programs, regarding addiction? Specifically, knowledge regarding gambling and alcohol use disorders.

Knowledge and Training Regarding Addiction-Related Problems: Problem Gambling

For the questions that ask about percentage (%), please do your best to provide as close an approximation to the % of training you have received in gambling-related problems in relation to the other training you have received in your program.

18) Please provide the percentage (%) of graduate school training in gambling-related problems you have received thus far (in relation to other training)⁴
 a. A whole number between 0 and 100

19) Please provide the percentage (%) of graduate school training in gambling-related problems you expect to receive in your current program (in relation to other training)⁶
 a. A whole number between 0 and 100

20) Please provide the percentage (%) of internship or practicum training in gambling-related problems you have received thus far (in relation to other training). If you have not had any internship or practicum training, please type in "N/A"⁴
 a. Open answer

21) Please provide the percentage (%) of internship or practicum training in gambling-related problems you expect to receive in your current program (in relation to other training)⁶

- a. A whole number between 0 and 100

22) Do you believe that gambling-related problems exist?⁵

- a. Yes
- b. No

Reading: Problem Gambling

23) Have you read about gambling-related problems prior to this survey?⁵

- a. Yes (continue to question 24)
- b. No (skip to question 26)

24) Do you feel as though your reading has contributed to your levels of perceived knowledge in the area of gambling-related problems?⁶

- a. Yes
- b. No

25) Do you feel as though your reading will contribute to your future competence as a practitioner potentially working in the area of gambling-related problems?⁶

- a. Yes
- b. No

Workshops/ Seminars/ Conferences: Problem Gambling

26) Have you attended any workshops, seminars, or conferences on gambling-related problems? ⁶

- a. Yes (continue to question 27)
- b. No (skip to question 30)

27) Approximately how many workshops, seminars, or conferences have you attended on gambling-related problems?⁴

- a. A whole number between 0 and 10,000

28) Do you feel as though your attendance at these workshops, seminars, or conferences has contributed to your levels of perceived knowledge in the area of gambling-related problems? ⁶

- a. Yes
- b. No

29) Do you feel as though your attendance at these workshops, seminars, or conferences will contribute to your future competence as a practitioner potentially working in the area of gambling-related problems? ⁶

- a. Yes
- b. No

Mass Media Materials: Problem Gambling

- 30) Have you watched, read, and / or consulted any mass media materials on gambling-related problems? ⁶**
- Yes (continue to question 31)
 - No (skip to question page 34)
- 31) Approximately how many mass media materials have you watched, read, and / or consulted on gambling-related problems?⁴**
- A whole number between 0 and 10,000
- 32) Do you feel as though watching, reading, and / or consulting these mass media materials has contributed to your levels of perceived knowledge in the area of gambling-related problems? ⁶**
- Yes
 - No
- 33) Do you feel as though watching, reading, and / or consulting these mass media materials will contribute to your future competence as a practitioner potentially working in the area of gambling-related problems? ⁶**
- Yes
 - No

Direct Practicum Client Experience: Gambling

- 34) Have you had any previous direct practicum client contact in gambling? ⁶**
- Yes
 - No

Knowledge and Training Regarding Addiction-Related Problems: Alcohol Use Disorders

For the questions that ask about percentage (%), please do your best to provide as close an approximation to the % of training you have received in alcohol-related problems in relation to the other training you have received in your program.

- 35) Please provide the percentage (%) of graduate school training in alcohol-related problems you have received thus far (in relation to other training)⁴**
- A whole number between 0 and 100
- 36) Please provide the percentage (%) of graduate school training in alcohol-related problems you expect to receive in your current program (in relation to other training) ⁶**
- A whole number between 0 and 100
- 37) Please provide the percentage (%) of internship or practicum training in alcohol-related problems you have received thus far (in relation to other**

training). If you have not had any internship or practicum training, please type in "N/A"⁴

- a. Open answer

38) Please provide the percentage (%) of internship or practicum training in alcohol-related problems you expect to receive in your current program (in relation to other training)⁶

- a. A whole number between 0 and 100

39) Do you believe that alcohol-related problems exist?⁵

- a. Yes
- b. No

Reading: Alcohol

40) Have you read about alcohol-related problems prior to this survey?⁵

- a. Yes (continue to question 41)
- b. No (skip to question 43)

41) Do you feel as though your reading has contributed to your levels of perceived knowledge in the area of alcohol-related problems?⁶

- a. Yes
- b. No

42) Do you feel as though your reading will contribute to your future competence as a practitioner potentially working in the area of alcohol-related problems?⁶

- a. Yes
- b. No

Workshops/ Seminars/ Conferences: Alcohol

43) Have you attended any workshops, seminars, or conferences on alcohol-related problems?⁶

- a. Yes (continue to question 44)
- b. No (skip to question 47)

44) Approximately how many workshops, seminars, or conferences have you attended on alcohol-related problems?⁴

- a. A whole number between 0 and 10,000

45) Do you feel as though your attendance at these workshops, seminars, or conferences has contributed to your levels of perceived knowledge in the area of alcohol-related problems?⁶

- a. Yes
- b. No

- 46) Do you feel as though your attendance at these workshops, seminars, or conferences will contribute to your future competence as a practitioner potentially working in the area of alcohol related problems? ⁶**
- Yes
 - No

Mass Media Materials: Alcohol

- 47) Have you watched, read, and / or consulted any mass media materials on alcohol-related problems? ⁶**
- Yes (continue to question 48)
 - No (skip to question 51)
- 48) Approximately how many mass media materials have you watched, read, and / or consulted on alcohol-related problems? ⁴**
- A whole number between 0 and 10,000
- 49) Do you feel as though watching, reading, and / or consulting these mass media materials has contributed to your levels of perceived knowledge in the area of alcohol-related problems? ⁶**
- Yes
 - No
- 50) Do you feel as though watching, reading, and / or consulting these mass media materials will contribute to your future competence as a practitioner potentially working in the area of alcohol-related problems? ⁶**
- Yes
 - No

Direct Practicum Client Experience: Alcohol

- 51) Have you had any previous direct practicum client contact in alcohol? ⁶**
- Yes
 - No

RQ3: What knowledge and training is provided to graduate students in recognized Canadian counselling psychology graduate programs, regarding gender differences in gambling disorders?

Knowledge and Training Regarding Gender Differences: Problem Gambling

For the questions that ask about percentage (%), please do your best to provide as close an approximation to the % of training you have received in gender differences in gambling -related problems in relation to the other training you have received in your program.

- 52) Do you think there are gender differences among populations who have gambling-related problems? ⁶**
- a. Yes (skip to question 54)
 - b. No (continue to question 53)
- 53) Please expand on why you do not think there are gender differences among populations who have gambling-related problems⁶**
- a. Open answer
- 54) Do you think that any gender differences related to gambling-related problems are a result of biological, social, a mixture of both of these influences, or none of the above? ⁶**
- a. Biological
 - b. Social
 - c. Mixture
 - d. None
 - e. I do not think there are gender differences related to gambling-related problems
- 55) Based on whether you think gender differences related to gambling-related problems exist, do you think that gambling-related problems lend themselves to different treatments for each gender? ⁶**
- a. I think there are gender differences related to gambling-related problems, and I think that men and women have different treatment needs for gambling-related problems
 - b. I think there are gender differences related to gambling-related problems, but I do not think that men and women have different treatment needs for gambling-related problems
 - c. I do not think there are gender differences related to gambling-related problems, but I think that men and women have different treatment needs for gambling-related problems
 - d. I do not think there are gender differences related to gambling-related problems, and I do not believe that men and women have different treatment needs for gambling-related problems
- 56) Would you like to expand on your response to the previous question? ⁶**
- a. Answer should be a specific length between 0 and 5000 characters
- 57) Please provide the percentage (%) of graduate school training in gender differences in gambling-related problems you have received thus far (in relation to other training)⁴**
- a. A whole number between 0 and 100
- 58) Please provide the percentage (%) of graduate school training in gender differences in gambling-related problems you expect to receive in your current program (in relation to other training) ⁶**
- a. A whole number between 0 and 100

59) Please provide the percentage (%) of internship or practicum training regarding gender differences in gambling-related problems you have received thus far (in relation to other training). If you have not had any internship or practicum training, please type in "N/A"⁴

- a. Open answer

60) Please provide the percentage (%) of internship or practicum training regarding gender differences in gambling-related problems you expect to receive in your current program (in relation to other training)⁶

- a. A whole number between 0 and 100

Reading: Problem Gambling & Gender Differences

61) Have you read about gender differences in gambling-related problems prior to this survey?⁵

- a. Yes (continue to question 62)
- b. No (skip to question 64)

62) Do you feel as though your reading has contributed to your levels of perceived knowledge regarding gender differences in gambling-related problems? ⁶

- a. Yes
- b. No

63) Do you feel as though your reading will contribute to your future competence as a practitioner potentially working in the area of gender differences in gambling-related problems? ⁶

- a. Yes
- b. No

Workshops/ Seminars/ Conferences: Problem Gambling & Gender Differences

64) Have you attended any workshops, seminars, or conferences on gender differences in gambling-related problems? ⁶

- a. Yes (continue to question 65)
- b. No (skip to question 68)

65) Approximately how many workshops, seminars, or conferences have you attended on gender differences in gambling-related problems?⁴

- a. A whole number between 0 and 10,000

66) Do you feel as though your attendance at these workshops, seminars, or conferences has contributed to your levels of perceived knowledge in the area of gender differences in gambling-related problems? ⁶

- a. Yes
- b. No

67) Do you feel as though your attendance at these workshops, seminars, or conferences will contribute to your future competence as a practitioner potentially working in the area of gender differences in gambling-related problems? ⁶

- a. Yes
- b. No

Mass Media Materials: Problem Gambling & Gender Differences

68) Have you watched, read, and / or consulted any mass media materials on gender differences in gambling-related problems? ⁶

- a. Yes (continue to question 69)
- b. No (skip to question 72)

69) Approximately how many mass media materials have you watched, read, and / or consulted regarding gender differences in gambling-related problems? ⁴

- a. A whole number between 0 and 10,000

70) Do you feel as though watching, reading, and / or consulting these mass media materials has contributed to your levels of perceived knowledge in the area of gender differences in gambling-related problems? ⁶

- a. Yes
- b. No

71) Do you feel as though watching, reading, and / or consulting these mass media materials will contribute to your future competence as a practitioner potentially working in the area of gender differences in gambling-related problems? ⁶

- a. Yes
- b. No

Direct Practicum Client Experience: Problem Gambling & Gender Differences

72) Have you had any previous direct female practicum client contact? ⁶

- a. Yes
- b. No

RQ4: Based on education and training thus far, what is the current level of comfort, competence, and preparedness that current graduate students in recognized Canadian counselling psychology graduate programs report in relation to working with clients, particularly female clients, presenting with gambling-related problems.

Comfort

73) What is your comfort level in asking clients about gambling-related problems? ⁶

- a. Extremely comfortable
- b. Somewhat comfortable

- c. Neutral
- d. Somewhat comfortable
- e. Extremely comfortable

74) What is your comfort level in asking female clients about gambling-related problems? ⁶

- a. Extremely comfortable
- b. Somewhat comfortable
- c. Neutral
- d. Somewhat comfortable
- e. Extremely comfortable

Self-Reported Competence

75) How competent do you feel in evaluating clients for gambling-related problems?⁴

- a. Extremely competent
- b. Somewhat competent
- c. Neutral
- d. Somewhat incompetent
- e. Extremely incompetent

76) How competent do you feel in evaluating female clients for gambling-related problems?⁴

- a. Extremely competent
- b. Somewhat competent
- c. Neutral
- d. Somewhat incompetent
- e. Extremely incompetent

77) How competent do you feel in treating clients for gambling-related problems?⁴

- a. Extremely competent
- b. Somewhat competent
- c. Neutral
- d. Somewhat incompetent
- e. Extremely incompetent

78) How competent do you feel in treating female clients for gambling-related problems?⁴

- a. Extremely competent
- b. Somewhat competent
- c. Neutral
- d. Somewhat incompetent
- e. Extremely incompetent

79) How competent do you feel in referring clients for gambling-related problems?⁴

- a. Extremely competent

- b. Somewhat competent
- c. Neutral
- d. Somewhat incompetent
- e. Extremely incompetent

80) How competent do you feel in referring female clients for gambling-related problems?⁴

- a. Extremely competent
- b. Somewhat competent
- c. Neutral
- d. Somewhat incompetent
- e. Extremely incompetent

Preparedness

81) Based on your current level of education and training, how well-prepared do you feel you are to effectively assess clients presenting with gambling-related problems? ⁶

- a. Extremely prepared
- b. Somewhat prepared
- c. Neutral
- d. Somewhat unprepared
- e. Extremely unprepared

82) Based on your current level of education and training, how well-prepared do you feel you are to effectively assess female clients presenting with gambling-related problems? ⁶

- a. Extremely prepared
- b. Somewhat prepared
- c. Neutral
- d. Somewhat unprepared
- e. Extremely unprepared

83) Based on your current level of education and training, how well-prepared do you feel you are to effectively treat clients presenting with gambling-related problems? ⁶

- a. Extremely prepared
- b. Somewhat prepared
- c. Neutral
- d. Somewhat unprepared
- e. Extremely unprepared

84) Based on your current level of education and training, how well-prepared do you feel you are to effectively treat female clients presenting with gambling-related problems? ⁶

- a. Extremely prepared

- b. Somewhat prepared
- c. Neutral
- d. Somewhat unprepared
- e. Extremely unprepared

85) Based on your current level of education and training, how well-prepared do you feel you are to effectively refer clients presenting with gambling-related problems? ⁶

- a. Extremely prepared
- b. Somewhat prepared
- c. Neutral
- d. Somewhat unprepared
- e. Extremely unprepared

86) Based on your current level of education and training, how well-prepared do you feel you are to effectively refer female clients presenting with gambling-related problems? ⁶

- a. Extremely prepared
- b. Somewhat prepared
- c. Neutral
- d. Somewhat unprepared
- e. Extremely unprepared

Effectiveness of Education and Training

87) Do you feel as though you have been effectively educated and trained to deal with clients presenting with gambling-related problems? ⁶

- a. Yes
- b. No

88) Would you like to expand on your response in the previous question? ⁶

- a. A whole number between 0 and 10,000

89) Do you feel as though you have been effectively educated and trained to deal with female clients presenting with gambling-related problems? ⁶

- a. Yes
- b. No

90) Would you like to expand on your response in the previous question? ⁶

- a. A whole number between 0 and 10,000

RQ5: What are the current levels of willingness and interest in gaining more training and knowledge regarding PGs and WPGs?

Interest level

91) What is your level of interest in learning more about gambling-related problems?⁵

- a. Extremely interested
- b. Somewhat interested
- c. Neutral
- d. Somewhat disinterested
- e. Extremely disinterested

92) What is your level of interest in learning more about gambling-related problems in female clients?⁵

- a. Extremely interested
- b. Somewhat interested
- c. Neutral
- d. Somewhat disinterested
- e. Extremely disinterested

Willingness Level

93) What is your level of willingness to receive more training regarding working with clients who present with gambling-related problems?⁴

- a. Extremely willing
- b. Somewhat willing
- c. Neutral
- d. Somewhat unwilling
- e. Extremely unwilling

94) What is your level of willingness to receive more training regarding working with female clients who present with gambling-related problems?⁴

- a. Extremely willing
- b. Somewhat willing
- c. Neutral
- d. Somewhat unwilling
- e. Extremely unwilling

95) What is your level of willingness to read more articles regarding gambling-related problems?⁴

- a. Extremely willing
- b. Somewhat willing
- c. Neutral
- d. Somewhat unwilling
- e. Extremely unwilling

96) What is your level of willingness to read more articles regarding female gambling-related problems?⁴

- a. Extremely willing
- b. Somewhat willing

- c. Neutral
- d. Somewhat unwilling
- e. Extremely unwilling

97) What is your level of willingness to attend seminars, workshops, or conferences regarding gambling-related problems?⁴

- a. Extremely willing
- b. Somewhat willing
- c. Neutral
- d. Somewhat unwilling
- e. Extremely unwilling

98) What is your level of willingness to attend seminars, workshops, or conferences regarding female gambling-related problems?⁴

- a. Extremely willing
- b. Somewhat willing
- c. Neutral
- d. Somewhat unwilling
- e. Extremely unwilling

Appendix D: Gender Differences Summary Table

Topic	Author(s)	Males	Females
Prevalence			
Canadian youths (ages 15 to 24) for low- and moderate-risk gambling	(Huang & Boyer, 2007)	3.3%	1.1%
United States lifetime prevalence rate of pathological gambling	(Blanco et al., 2006)	0.6%	0.2%
United States lifetime prevalence rate of subclinical pathological gambling		6.8%	3.3%
Finnish prevalence	(Nordmyr et al., 2014)	7.6%	3.1%
Participation and Games			
Gambling participation rates (over 24 years old)	(Marshall and Wynn, 2003)	78.0%	73.0%
Using VLTs		7.0%	5.0%
Betting on horse racing		5.0%	3.0%
Playing bingo		5.0%	12.0%
Preference of gaming scope	(Wenzel and Dahl, 2009)	Wider scope (prefer a wider range of gambling forms)	Narrower scope
Game preferences	(Grant & Kim, 2002; Hing & Breen, 2001; LaPlante et al., 2006; Potenza et al., 2001; Wenzel & Dahl, 2009)	Games of skill (e.g., casino, blackjack, cards, sports betting)	Games of chance (e.g., bingo, lotteries, VLTs)
More likely to become addicted to slot machines	(Echeburúa et al., 2011)	92.3%	66.7%
More likely to become		0.0%	25.5%

addicted to bingo			
Engaged in land based gambling	(Nordmyr et al., 2014)	62.4%	75.2%
Engaged in online based gambling		More	Less
Experienced issues with VLTs prior to incarceration	(Turner et al., 2013)	8%	45%
Likelihood of having problems with gambling in jail		More	Less
Money			
Median spending in 2001 among those who spent over \$1,000	(Marshall and Wynn, 2003)	\$2,280	\$1,900
Average spending in 2011	(Marshall, 2011)	\$615	\$335
Strategy	(Hing & Breen, 2001).		More likely to maximize their time on gambling machines
Approach to Gambling			
Motivation for gambling	(Blanco et al., 2006; Echeburúa et al., 2011; Grant & Kim, 2002; Wenzel & Dahl, 2009)	Action gambling (e.g., social pressure, earn money, win)	Escape gambling (e.g., loneliness, avoidance, relieve depressed affect)
Age of onset	(Grant & Kim, 2002; LaPlante et al., 2006; Wenzel & Dahl, 2009)	Earlier onset	Telescope
	(Wenzel & Dahl, 2009)	21.9–28.3	30.0–37.5
Became addicted to gambling after _ number of years	(Echeburúa et al., 2011)	9.66 years	5.88 years
Risk Factors			
At-risk for, or already	(Afifi, et al., 2016)	Male youths	Female youths

		more at-risk	less at risk
experiencing, problem gambling	(Marshall & Wynne, 2003)	8.0% risk of becoming a PG	5.0% risk of becoming a PG
	(Williams et al., 2012)	Young males more likely to be PG	Young females less likely
Age	(Afifi et al., 2010a; Blanco et al., 2006; Echeburúa et al., 2011)	Men over 70 years less at risk	Middle-aged women more at risk
	(Nordmyr et al., 2014)	Men between 50-64 years of age less at risk than those between 15-29.	No significant results between age and WPGs
Relationship status	(Echeburúa et al., 2011)	51.9% single	15.7% single
		5.8% divorced	23.5% divorced
		3.8% widowed	13.7% widowed
Domestic violence	(Echeburúa et al., 2011)		68.6% of females had been victims of violence at the hands of their spouses
	(Dowling, Jackson, et al., 2014)		2.1 times more likely to report being victimized
Relationship impact	(Dowling, Rodda, et al., 2014)		Spouses of PGs negatively impacted by partners' gambling (e.g., distress, financial, employment, social life)
	(Cheung, 2015)	Husbands more likely to be problematic and pathological	Wives less likely to be problematic and pathological gamblers in

		gamblers in relationships (12.8% and 2.5%, respectively)	relationships (5.2% and 0.3%, respectively)
		Gambling behaviours likely affected by poor coping with stress as a youth and troubled relationships	Gambling behaviours likely affected by strain within relationship and negative affect
Income	(Afifi et al., 2010a; Echeburúa et al., 2011; Wenzel & Dahl, 2009)	Higher	Lower
	(Afifi et al., 2010a)	6.9% make \$0 to \$14,999	15.9% make \$0 to \$14,999
		25.0% make \$80,000 or more	13.1% make \$80,000 or more
	(Echeburúa et al., 2011)	7.7% in low-income bracket	18.0% in low-income bracket
		7.7% in medium-low socioeconomic level	24.0% in medium-low socioeconomic level
Money management	(Grant & Kim, 2002)	Likely to have lost financial savings due to gambling	Likely to have written bad cheques due to gambling
Education	(Afifi et al., 2010a)	11.4% completed a University degree	4.7% completed a University degree
	(Echeburúa et al., 2011)	7.7% completed college	12.0% completed college
Comorbidity	(Kushnir, et al., 2015)		More likely to be guilt and shame prone
	(Echeburúa et al.,	Issues with	Anxiety,

	2011; Wenzel & Dahl, 2009)	impulsivity and sensation seeking	depression, and self-esteem issues
	(Afifi et al., 2010b)		More vulnerable to becoming a PG if they have poor coping skills or higher stress
	(Nordmyr et al., 2014)	Psychologically distressed males had a higher risk of becoming a PG	Women presenting with alcohol-related issues increases their risk of gambling disorders
Substance use in those with subclinical pathological gambling diagnoses	(Blanco et al., 2006; see also Echeburúa et al., 2011)	Males with subclinical pathological gambling diagnoses Likely to smoke cigarettes, drink, and have substance issues	Females with subclinical pathological gambling diagnoses Likely to have disorders associated with mood and anxiety disorders
History of psychiatric illness	(Echeburúa et al., 2011)	40.4%	60.8%
Temporal sequencing	(Haw & Holdsworth, 2015)	Problem gambling occurred first	Problem gambling occurred after other disorders
Health	(Afifi et al., 2010b)		WPGs more likely to have poorer physical (e.g., bronchitis) and psychological health (e.g., suicidality, increased risk for mental

			health disorders, except for substance use)
Bankruptcy and suicide	(Komoto, 2014)		Positively associated with being a WPG
Crime	(Wenzel & Dahl, 2009)	Male PGs more likely to have criminal histories	Less likely to have criminal histories
Treatment			
PGs in treatment	(Crisp et al., 2000, see also Wenzel & Dahl, 2009)	More	Less
Treatment seeking	(Dowling, 2013)	Relatively lower	Relatively higher
Reasons for treatment seeking	(Crisp et al., 2000)	Legal and employment assistance	Sought a counsellor for family or interpersonal issues
Reporting a gambling issue	(Dowling, 2013)	More likely to	Less likely to
Research			
Amount of research on PGs	(Crisp et al., 2000; Li, 2007)	More available	Less available
Treatment strategies on PGs	(Crisp et al., 2000; Dowling, 2013)	More based on males	

Appendix E: Brief Summary of Research

Problem gambling is associated with many costs to those who suffer from gambling-related disorders. Specific risk factors, such as gender, can increase one's chances of becoming a problem gambler. Men and women experience gambling disorders differently, including their motivations for gambling, the gambling games they prefer, the severity of the disorder, and the comorbidities associated with the disorder.

The majority of the research conducted on gambling, thus far, has been focused on male gamblers. As such, the unique experience of women problem gamblers (WPGs) has been largely understudied. In order to provide maximally effective treatments to WPGs, gaps in foundational knowledge should be addressed. By ascertaining the levels of graduate student knowledge surrounding problem gambling, specifically gender differences, areas in which more study is warranted will be highlighted. Future research can thus focus on providing counselling graduate students with adequate training. In turn, the assessment, treatment, and prevention of problem gambling will be ameliorated.

Graduate students' participation in this study can add to the research being conducted on WPGs and eventually contribute to improving the quality of care that they receive.

This study is funded by the Alberta Gambling Research Institute and has been approved by the Faculty of Education Human Subject Committee at the University of Lethbridge.

Student

Mackenzie Becker

Email: [email address]

Phone: [telephone number]

Supervisor

Noëlla Piquette

Email: [email address]

Phone: [telephone number]

Appendix F: Reminder Email

To Whom It May Concern,

My name is Mackenzie Becker, and I am a graduate student at the University of Lethbridge completing a Masters of Education in Counselling Psychology. We corresponded last in early September.⁷

I am writing to thank you for disseminating my online survey to all of the counselling psychology graduate students enrolled at your academic institution. Your assistance in this research endeavor has been invaluable.

The online survey will be available for participation for a while longer. **As such, I am emailing to ask if you would be so kind as to send a follow-up reminder email to ask your students to fill out the survey if they have not yet done so. You can do so by copying and pasting the text below into the email you send to your students. This will be the only reminder I will ask you to send to your students as I recognize that academic institutions are often inundated with research participation requests.**

All graduate students who are 18 years or older and currently enrolled in recognized Canadian counselling psychology graduate programs are being contacted to complete this survey. Please note that this survey is only available in English at this time.

In short, the purpose of my thesis is to determine the level of knowledge and training that current counselling psychology graduate students have with regards to problematic gambling, specifically in terms of gender differences. The study is described in more detail in the consent form, which can be found on the first few pages of the online survey, as well as on the sheet attached to this email. The research is being

⁷ Please note that this changed depending on when the particular school had been contacted previously.

conducted under the supervision of Dr. Noëlla Piquette. This study is funded by the Alberta Gambling Research Institute and has been approved by the Faculty of Education Human Subject Committee at the University of Lethbridge.

At any time, you can contact the researcher and the supervisor at their emails and/or phone numbers, which can be found below this text. You may also contact the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge [telephone number] to verify the ethical approval of this study, or raise any concerns. Participants may also contact the Assistant Dean of Graduate Studies and Research, Dr. Kerry Bernes, at [telephone number]. Thank you very much for your time and consideration.

Sincerely,

Mackenzie Becker

Email: [email address]

Phone: [telephone number]

Noëlla Piquette

Email:[email address]

Phone: [telephone number]

Study name: Canadian Counselling Psychology Graduate Student Knowledge of Women Problem Gamblers