5-31-2022 10:00 AM

Mental Health Walk-In Clinics for Children and Families

Catalina Sarmiento, *The University of Western Ontario*

Supervisor: Reid, Graham J., *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Psychology

Abstract

Approximately one in five children in Ontario have a mental health disorder causing significant distress and/or impairment. Yet only a third of these children receive specialized mental health services. One of the barriers to accessing care is long waitlists. Mental health walk-in clinics (MHWCs) can help address this issue by providing immediate support and removing administrative hassles for families (e.g., phone calls, intakes). The current dissertation sought to better understand the availability, implementation, and use of MHWCs.

Study 1 explored the availability of MHWCs across Canada. A brief survey was distributed to child and youth mental health (CYMH) agencies. Many CYMH agencies (73% total sample; 69% random sample) reported using this service delivery model. Study 2 examined the implementation of MHWCs in Ontario. An in-depth survey was distributed to CYMH agencies in Ontario. MHWCs are being used to provide timely and accessible services, as well as to serve as a point of intake for 44% of agencies. MHWCs are provided in different locations (e.g., agencies, schools) using different modalities (e.g., consulting break) and approaches (e.g., solution focused therapy). Most agencies quickly adapted to COVID-19 restrictions by providing virtual MHWCs.

Studies 3 and 4 explored how families use MHWCs. Administrative data from two CYMH agencies in Ontario capturing a period of 3 to 6 years were extracted. Overall, 24% and 61% of families in Agency 1 and 2, respectively, used MHWCs at least once. About a third of families using MHWCs had 2 or more visits. Younger children, children in shared custody or under the guardianship of their birth/adoptive mother or father, and children that were not referred to other agency services had higher risk of a second MHWC visit. Over half of families use MHWCs alongside other agency services; most often, earlier in the service use trajectory. Older children, children in shared custody, and children who were referred to other agency services had higher odds of MHWC use before other services.

In summary, MHWCs were a common service delivery model in the CYMH agencies sampled in Ontario and in Canada. It is flexible, such that the implementation (e.g., modality, approach) can be tailored to fit the needs of an agency and community. MHWCs may be sufficient for 33-43% of families. Providing help in a MHWC visit without requiring a comprehensive intake

or asking families to wait should enhance access for other families who require more intensive services. For other families (57-67%), MHWCs can help support them at the beginning of their service journey by providing initial support and linking them to other agency services.

Keywords: mental health walk-in clinics; children; families; Ontario

Summary for Lay Audience

About one in five children in Ontario have a mental health disorder, but only a third of these children get mental health services. One of the barriers to accessing services is long waitlists. Mental health walk-in clinics (MHWCS) can help by providing immediate support and removing hassles for families, such as phone calls and waiting days to weeks to see a professional. The current dissertation sought to better understand the availability, implementation, and use of MHWCs.

Study 1 explored at the availability of MHWCs across Canada. Child and youth mental health (CYMH) agencies were contacted and asked to complete a short survey. Many CYMH agencies (73% overall) reported that they offer MHWCs. Study 2 examined how the MHWCs had been implemented by CYMH agencies in Ontario. MHWCs are being used to provide accessible services, as well as to serve as a point of intake (e.g., agency staff talk to families about their concerns so that they can guide them to the appropriate service) for 44% of agencies. MHWCs are provided in different ways, such as the locations used (e.g., agencies, schools). Most agencies quickly adapted to COVID-19 restrictions by providing virtual MHWCs.

Studies 3 and 4 explored how families use MHWCs. Electronic records from two CYMH agencies in Ontario were obtained. Overall, 24% and 61% of families in Agency 1 and 2, respectively, used MHWCs at least once. About a third of families using MHWCs had 2 or more visits. Younger children, children in shared custody or under the guardianship of their birth/adoptive mother or father, and children that were not referred to other agency services were more likely to have a second MHWC visit.

Furthermore, over half of families use MHWCs alongside other agency services (e.g., MHWCs and an anxiety group); most often, earlier in their service use journey. Older children, children in shared custody, and children who were referred to other agency services were more likely to use MHWCs before other services.

In summary, MHWCs were a common service delivery model in the CYMH agencies sampled in Ontario and in Canada. It is flexible so that the way it is set up can be tailored to fit the needs of an agency and community. MHWCs may be sufficient for 33-43% of families. For other

families (57-67%), MHWCs can help support them at the beginning of their service journey by providing initial support and linking them to other agency services.

Co-Authorship Statement

This dissertation is composed of four studies. The first study (Chapter 2) was part of a larger project examining different approaches (e.g., mental health walk-in clinics, stepped-care models) to address service shortfalls. It was designed by Catalina Sarmiento, Kimberly Dossett, and Dr. Graham J. Reid. The remaining studies (Chapters 3, 4, and 5) were designed by Catalina Sarmiento and Dr. Graham J. Reid. Catalina Sarmiento led the data collection and was responsible for data cleaning, statistical analyses, and manuscript writing for all studies.

The first study (Chapter 2) was presented as a conference poster. The second study (Chapter 3) was recently published as a journal article. The third and fourth studies (Chapters 4 and 5) have been submitted for publication as journal articles and are currently under review. References are provided below in the order in which they appear in the dissertation.

Sarmiento, C., Dossett, K., & Reid, G. J. (2021, May). *Mental health walk-in clinics: A national feasibility study*. Poster presented at the Child Health Symposium, London, Ontario.

Sarmiento, C., & Reid, G. J. (2022). Mental health walk-in clinics for children and families: A provincial survey. *Advances in Mental Health*, 1-12.

Sarmiento, C., & Reid, G. J. (under review). Accessing and re-accessing mental health walk-in clinics for children and families.

Sarmiento, C., & Reid, G. J. (under review). Accessing mental health walk-in clinics and other services for children and families.

Acknowledgements

First and foremost, I would like to extend my sincere gratitude to the agencies (especially St. Clair Child & Youth Services and Haldimand-Norfolk REACH) and Children's Mental Health Ontario. This dissertation would not have been possible without them. I was also lucky to have worked with and received support from a wonderful group of people, including research assistants, study coordinators, Reid Lab members, and research supervisor – Dr Graham Reid. I sincerely appreciate Dr. Graham Reid's support in pursuing a topic that I am truly interested in. His support, expertise, and scientific rigor have been invaluable.

Thank you to my examination committee members Dr. Lindsay Bodell, Dr. Leora Swartzman, Dr. Ava John-Baptiste, and Dr. Srividya Iyer for volunteering their time and feedback. I would be remiss if I did not mention Dr. Paul Tremblay and Dr. Lindsay Bodell for their role in my advisory committee as well – I appreciate their guidance and support. I am eternally grateful to Dr. Paul Tremblay for his endless patience and willingness to help throughout my graduate studies.

An immense thank you to my friends, partner, and family for their unwavering support. A special thanks to my parents for their unconditional love, kindness, and encouragement.

This research was supported by a Western Strategic Support for CIHR Success Program, Mitacs Research Training Award, Children's Health Research Institute (CHRI) Trainee Award funded by the Children's Health Foundation, and Ontario Graduate Scholarship.

Table of Contents

List of Tables

List of Figures

List of Appendices

Chapter 1

1 Introduction to Mental Health Walk-In Clinics

A recent provincial epidemiological study found that 18% to 20% of children and youth in Ontario have one or more mental health disorders that cause significant impairment (Georgiades et al., 2019; Waddell et al., 2019). Mental health disorders can impact functioning in the home, at school, and in the community (Hintzpeter et al., 2015; Waddell et al., 2002; Wille et al., 2008). Of note, parents' ratings of their children's need for help (i.e., perception that formal mental health services are needed) has doubled in the past 30 years (Boyle et al., 2019; Waddell et al., 2019).

Despite the high and growing need for help, only 26% to 34% of children with mental health problems receive specialized mental health services (Georgiades et al., 2019; Waddell et al., 2019). One of the main barriers to accessing mental health services are long wait lists. Children's Mental Health Ontario (2020), for example, reports that waitlists have continued to grow and 28,000 children and youth wait as long as 2.5 years for services. This problem is not new (Reid & Brown, 2008) and not specific to Ontario. A Canadian national survey found that only 31% of CYMH agencies were able to meet the Canadian Psychiatric Association's benchmark for service wait times (Kowalewski et al., 2011). Such long waitlists are concerning. Long waits may exacerbate mental health problems and contribute to an increased risk for suicide, hospitalization, and non-attendance (Kowalewski et al., 2011; Vallerand & Mclennan, 2013).

These concerning statistics have led researchers and policy-makers to call for changes to service delivery (Duvall et al., 2012; Waddell et al., 2019). Cost efficiency is also a consideration, given the longstanding limitations to mental health funding (Bhanot-Malhotra et al., 2010; Children's Mental Health Ontario, 2020). One model that has gained increasing interest and traction is mental health walk-in clinics (MHWC). The goal of this dissertation was to provide key information about the availability, implementation, and use of MHWCs in CYMH agencies.

The following sections review brief therapy, including approaches, history, effectiveness, service use, and caveats. Then, the four studies comprising this dissertation are outlined.

1.1 Brief Therapy

Brief therapy approaches are founded on the belief that change can occur in relatively few sessions (Slive & Bobele, 2012). Two forms of brief therapy that have gained attention and traction are scheduled single session therapy (SST) and unscheduled SST (i.e., MHWC). Both scheduled SST and MHWCs treat each session as if it will be the only session with a client (Perkins, 2006). As such, each session is structured like a course of therapy, with a beginning (e.g., getting to know the client), middle (e.g., exploring the issue, strengths, and resources), and end (e.g., developing a plan; Slive & Bobele, 2012). The modality (e.g., one or two clinicians working with a client) and approach (e.g., cognitive behavioural therapy) used is flexible and can be adjusted to fit the needs of families and agencies (Bloom & Tam, 2015). The key difference between these service models is that MHWCs remove administrative hassles for families, including making phone calls, scheduling appointments, attending comprehensive intakes, and waiting days to weeks for the service (Bloom & Tam, 2015; Slive & Bobele, 2012).

The literature on SST is encouraging. Satisfaction with services has been found to be high for both types of SSTs (Bhanot-Malhotra et al., 2010; Hymmen et al., 2013; Miller & Slive, 2004; Slive et al., 2008; Slive & Bobele, 2012). Effectiveness of scheduled SST has been studied more extensively, allowing for a meta-analysis of 50 randomized controlled trials. The meta-analysis found a significant beneficial effect in the small-to-medium range with the largest effects for anxiety and conduct problems (Schleider & Weisz, 2017b). Documentation for the effectiveness of MHWCs is limited but promising; there have been some studies (e.g., Barwick et al., 2013; Stalker et al., 2016) and one literature review (Bloom & Tam, 2015). There is evidence for perceived improvement in level of distress, confidence to address the problem, and hopefulness immediately after the session (Bhanot-Malhotra et al., 2010; Harper-Jaques et al., 2008), as well as improvement at follow-up on psychopathology, impairment, and distress (Barwick et al., 2013; Bhanot-Malhotra et al., 2010; Stalker et al., 2012).

Less is known about the availability and use of SST. In terms of availability, there is some evidence to suggest that about 10 years ago, approximately 50% of agencies in Ontario and 50% of agencies in Canada offered MHWCs (Duvall et al., 2012; Vallerand & Mclennan, 2013). In terms of use, research has found that 50% of scheduled SST clients and 44-50% of MHWC clients

report at the end of the session that the single session was adequate and do not schedule/attend further sessions (Bhanot-Malhotra et al., 2010; Horton et al., 2012; Hymmen et al., 2013; Miller & Slive, 2004; Slive et al., 2008; J. Young, 2018). Moreover, some studies have found that clients that access MHWCs have less service use at follow-up in the mental health, education, juvenile justice, and general medical sectors (Barwick et al., 2013; Stalker et al., 2012). However, this is not a consistent finding. For example, Horton et al., (2012) found that clients that attended a MHWC used more community services following their MHWC visit compared to prior to it. Horton and colleagues hypothesized that MHWCs provided referrals and system navigation. This is supported by research that has found that between 8% and 25% of MHWC clients are referred to other services (Miller & Slive, 2004; Stalker et al., 2012).

1.2 History of MHWCs

Formal MHWCs began to emerge in North America in the 1960s, with the United States paving the way. The Los Angeles Free Clinic and the Haight-Ashbury Free Clinic (established in 1967) and the Walk-In Clinic Counselling Centre of Minneapolis and St. Paul (established in 1969) were the first clinics in the United States. In Canada, the Wood's Homes Eastside Family Centre (established in 1990 in Alberta) was the first clinic in the country, and Yorktown Child and Family Centre (established in 2000) was the first clinic in Ontario (Hoyt et al., 2018; Stalker et al., 2012; Weeks & Zook-Stanley, 2018). The concept of intentional SST as a distinct service delivery model was more clearly explained and developed in the 1990's by Talmon in his seminal book *Single Session Therapy: Maximizing the Effect of the First (and Often Only) Therapeutic Encounter* (Hoyt et al., 2018).

It is important to note that this service delivery model has been implemented with minority populations and in other countries, including United Kingdom, Australia, Israel, Mexico, China, Haiti, Sweden, and Cambodia (Bloom & Tam, 2015; Bobele et al., 2008; Crismani & Galletly, 2011; Guthrie, 2018; Levin et al., 2018; Miller et al., 2018; Rodriguez, 2018; Soo-Hoo, 2018; Story, 2018; Talmon, 2012). Many aspects of MHWCs are transferrable across cultures, while others are not. Adaptations and modifications are made to fit the culture and needs of the population. This includes changing how therapy is provided, where it is provided, and even how it is advertised (Guthrie, 2018; Miller et al., 2018; Rodriguez, 2018). For instance, clinicians

working in collectivistic cultures (e.g., China) place more weight on family and community involvement and expectations, than those in individualistic cultures (e.g., United States). An examination of MHWCs around the world is beyond the scope of this dissertation. Thus, the literature presented concentrates on the implementation of MHWCs in North America, with a specific focus on information from Canada and Ontario. This is done given that the data collected are from Canada (Chapter 2) and Ontario (Chapters 3, 4, and 5).

1.3 Caveats with MHWCs

It has been noted across the literature and policy documents that MHWCs are meant to *complement*, as opposed to replace a continuum of services (i.e., a wide range of services or programs ranging in intensity; Duvall et al., 2012; Slive et al., 2008; J. Young, 2018). In fact, MHWCs may not be appropriate for every client (Duvall et al., 2012; Slive et al., 2008; Talmon, 2012). Schleider and Weisz (2017a), Duvall and colleagues (2012), and Talmon (as cited by Cameron, 2007) outline some of the considerations.

Schleider and Weisz (2017a) discuss how MHWCs may not be appropriate for presenting concerns that require monitoring procedures to ensure the safety of the client and others (e.g., suicidal ideation), and to avoid or reduce medical complications (e.g., severe cases of anorexia nervosa).

Duvall and colleagues (2012) reviewed the literature and identified six considerations in deciding whether brief work is appropriate: duration of the presenting problem, interpersonal history, severity of the presenting problem, complexity, understanding, and social support. Specifically, clients with chronic presenting problems, history of abuse/neglect/violence that may impede trust and disclosure, severe and impairing disorders, complex presenting problems, lack of insight and/or motivation, and lack of social support may benefit more from longer-term or traditional therapy (Duvall et al., 2012).

Talmon in his seminal book (as cited by Cameron, 2007) articulated five types of clients for whom single session work would not be appropriate, including clients: seeking traditional/longer-term therapy, requiring inpatient services, presenting with conditions that have a strong biological component and may require medication (e.g., schizophrenia, bipolar),

presenting with neurological damage (e.g., dementia), and presenting with personality disorders (e.g., borderline, narcissistic). It should be noted that Talmon's seminal book was not focused on work with children; as such, some of these concerns are rare in this population (e.g., personality disorders).

1.4 Overview of Dissertation

In summary, the literature suggests that MHWCs have the potential to maximize access to, and efficiency of, services in a way that meets families' needs. There are limitations to this research, however. Previous surveys capturing the availability of MHWCs are from about a decade ago and had difficulties with recruitment, yielding 31% (Kowalewski et al., 2011; Vallerand & Mclennan, 2013) and 20% (Duvall et al., 2012) response rates. It is possible that these surveys may not be an accurate representation of the current availability of this service delivery model. Service use studies, in turn, have focused on more descriptive statistics, thereby limiting our knowledge of child and family factors that predict MHWC service use. They have also focused on self-report measures of service use (e.g., services used in addition to MHWCs), which rely on recall and (in some studies; e.g., Barwick et al., 2013) on families completing follow-up surveys/interviews.

This dissertation sought to address these limitations in the literature by providing key information on the availability, implementation, and use of MHWCs in CYMH agencies. This was done by using methodologies that maximize response rates and by collecting both survey and electronic administrative data. The latter is key as it circumvents issues of recall associated with self-report measures and of attrition related to follow-up surveys/interviews. The objectives of this dissertation were to:

1. Explore the availability of MHWCs across Canada (Chapter 2).
2. Examine how MHWCs have been implemented by CYMH agencies in Ontario (Chapter 3).
3. Explore how MHWCs are used by families and identify correlates of time to a second MHWC visit (Chapter 4).
4. Explore how MHWC use is related to use of other services provided by agencies (e.g., MHWCs used exclusively, before other services, concurrently with other services, after

other services) and identify correlates of MHWC use alongside other agency services (Chapter 5).

The first objective of the dissertation was addressed by a national survey of CYMH agencies across Canada. The number of agencies recruited per province or territory was based on population size. As such, more agencies were recruited in provinces with larger population sizes (e.g., Ontario). Agencies had the option of completing a 5-minute survey over the phone or online (Qualtrics link). The second objective was addressed by a provincial survey of CYMH agencies in Ontario that reported providing MHWCs in the national survey. Agencies had the option of completing a 20-minute survey over the phone or online (Qualtrics link).

The third and fourth objectives of the dissertation were addressed by extracting electronic administrative data from two Ontario CYMH agencies. Data included demographics, service use, and presenting concerns. Data for 3-6 years prior to the start of the COVID-19 pandemic were used, depending on when the MHWCs were implemented and availability of electronic records (see Appendix A for research ethics approval forms).

1.5 References

Barwick, M., Urajnik, D., Sumner, L., Cohen, S., Reid, G., Engel, K., & Moore, J. E. (2013). Profiles and service utilization for children accessing a mental health walk-in clinic versus usual care. *Journal of Evidence-Based Social Work*, *10*(4), 338–352.

Bhanot-Malhotra, S., Livingstone, S., & Stalker, C. (2010). *An inventory of walk-in counselling clinics in Ontario*. http://www.briefnarrative.com/field-notes/walk-in-inventory.pdf

Bloom, K., & Tam, J. A. (2015). Walk-in services for child and family mental health. *Journal of Systemic Therapies*, *34*(1), 61–77.

Bobele, M., López, S., Scamardo, M., & Solórzano, B. (2008). Single-session/walk-in therapy with Mexican-American clients. *Journal of Systemic Therapies*, *27*(4), 75–89.

Boyle, M. H., Georgiades, K., Duncan, L., Comeau, J., & Wang, L. (2019). The 2014 Ontario Child Health Study—Methodology. *Canadian Journal of Psychiatry*, *64*(4), 237–245.

Children's Mental Health Ontario. (2020). *Kids can't wait: 2020 report on wait lists and wait time for child and youth mental health care in Ontario*. https://cmho.org/wp-content/uploads/CMHO-Report-WaitTimes-2020.pdf

Crismani, C., & Galletly, C. (2011). "Walk-ins": Developing a nursing role to manage unscheduled presentations to a community mental health clinic. *Contemporary Nurse*, *39*(1), 12–19.

Duvall, J., Young, K., & Kays-Burden, A. (2012). *No more, no less: Brief mental health services for children and youth*. http://www.excellenceforchildandyouth.ca/sites/default/files/resource/policy_brief_mental_health_services.pdf

Georgiades, K., Duncan, L., Wang, L., Comeau, J., & Boyle, M. H. (2019). Six-month prevalence of mental disorders and service contacts among children and youth in Ontario: Evidence from the 2014 Ontario child health study. *Canadian Journal of Psychiatry*, *64*(4), 246–255.

Guthrie, B. (2018). Reflections on providing single-session therapy in post-disaster Haiti. In M. F.

Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 303–317). Routledge.

Harper-Jaques, S., McElheran, N., Slive, A., & Leahey, M. (2008). A comparison of two approaches to the delivery of walk-in single session mental health therapy. *Journal of Systemic Therapies*, *27*(4), 40–53.

Hintzpeter, B., Klasen, F., Schon, G., Voss, C., Holling, H., & Ravens-Sieberer, U. (2015). Mental health care use among children and adolescents in Germany: Results of the longitudinal BELLA study. *European Child & Adolescent Psychiatry*, *24*(6), 705–713.

Horton, S., Stalker, C., Cait, C.-A., & Josling, L. (2012). Sustaining walk-in counselling services. *Healthcare Quarterly*, *15*(3), 44–49.

Hoyt, M. F., Bobele, M., Slive, A., Young, K., & Talmon, M. (2018). Single-session/ one-at-a-time walk-in therapy. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 3–24). Routledge.

Hymmen, P., Stalker, C. A., & Cait, C. A. (2013). The case for single-session therapy: Does the empirical evidence support the increased prevalence of this service delivery model? *Journal of Mental Health*, *22*(1), 60–71.

Kowalewski, K., McLennan, J. D., & McGrath, P. J. (2011). A preliminary investigation of wait times for child and adolescent mental health services in Canada. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *20*(2), 112–119.

Levin, S. B., Gil-Wilkerson, A., & Rapini De Yatim, S. (2018). Single-session walk-in as a collaborative learning community at the Houston Galveston Institute. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 251–259). Routledge.

Miller, J. K., Platt, J. J., & Conroy, K. M. (2018). Single-session therapy in the majority world:

Addressing the challenge of service delivery in Cambodia and the implications for other global contexts. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 116–134). Routledge.

Miller, J. K., & Slive, A. (2004). Breaking down the barriers to clinical service delivery: Walk-in family therapy. *Journal of Marital and Family Therapy*, *30*(1), 95–103.

Perkins, R. (2006). The effectiveness of one session of therapy using a single-session therapy approach for children and adolescents with mental health problems. *Psychology and Psychotherapy: Theory, Research and Practice*, *79*(2), 215–227.

Reid, G. J., & Brown, J. B. (2008). Money, case complexity, and wait lists: Perspectives on problems and solutions at children's mental health centers in Ontario. *Journal of Behavioral Health Services and Research*, *35*(3), 334–346.

Rodriguez, I. J. (2018). Terapia breve sin cita: Collaboration with a marginalized community in Mexico city. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 291–302). Routledge.

Schleider, J. L., & Weisz, J. R. (2017a). Can less be more? The promise (and perils) of single-session youth mental health interventions. *The Behavior Therapist*, *40*(7), 256–261.

Schleider, J. L., & Weisz, J. R. (2017b). Little treatments, promising effects? Meta-analysis of single-session interventions for youth psychiatric problems. *Journal of the American Academy of Child and Adolescent Psychiatry*, *65*(2), 107–115.

Slive, A., & Bobele, M. (2012). Walk-in counselling services: Making the most of one hour. *Australian and New Zealand Journal of Family Therapy*, *33*(1), 27–38.

Slive, A., McElheran, N., & Lawson, A. (2008). How brief does it get? Walk-in single session therapy. *Journal of Systemic Therapies*, *27*(4), 5–22.

Soo-Hoo, T. (2018). Working within the client's cultural context in a single-session therapy. In M.

F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 186–201). Routledge.

Stalker, C. A., Horton, S., & Cait, C.-A. (2012). Single session therapy in a walk-in counselling clinic: A pilot study. *Journal of Systemic Therapies*, *31*(1), 38–52.

Stalker, C. A., Riemer, M., Cait, C. A., Horton, S., Booton, J., Josling, L., Bedggood, J., & Zaczek, M. (2016). A comparison of walk-in counselling and the wait list model for delivering counselling services. *Journal of Mental Health*, *25*(5), 403–409.

Story, K. (2018). "Coming in for tune-ups": A family's experience of episodic long-term single-session therapy at the Bouverie Centre, Melbourne. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 202–220). Routledge.

Talmon, M. (2012). When less is more: Lessons from 25 years of attempting to maximize the effect of each (and often only) therapeutic encounter. *Australian and New Zealand Journal of Family Therapy*, *33*(1), 6–14.

Vallerand, I. A., & Mclennan, J. D. (2013). Child and adolescent mental health service management strategies that may influence wait times. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *22*(2), 159–165.

Waddell, C., Georgiades, K., Duncan, L., Comeau, J., Reid, G. J., O'Briain, W., Lampard, R., & Boyle, M. H. (2019). 2014 Ontario child health study findings: Policy implications for Canada. *Canadian Journal of Psychiatry*, *64*(4), 227–231.

Waddell, C., Offord, D. R., Shepherd, C. A., Hon, B. A., Hua, J. M., & McEwan, K. (2002). Child psychiatric epidemiology and Canadian public policy-making: The state of the science and the art of the possible. *The Canadian Journal of Psychiatry - In Review*, *47*(9), 825–832.

Weeks, M., & Zook-Stanley, L. (2018). Walk-in counseling centre of Minneapolis/ St. Paul: The magic of our model for clients and volunteers. In M. F. Hoyt, M. Bobele, A. Slive, J. Young,

& M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 135–146). Routledge.

Wille, N., Bettge, S., Wittchen, H. U., & Ravens-Sieberer, U. (2008). How impaired are children and adolescents by mental health problems? Results of the BELLA study. *European Child and Adolescent Psychiatry*, *17*, 42–51.

Young, J. (2018). Single-session therapy: The misunderstood gift that keeps on giving. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 40–58). Routledge.

Chapter 2

2 A National Survey on Mental-Health Walk-In Clinics in Canada

2.1 Abstract

Mental health walk-in clinics (MHWC) provide unscheduled, immediate support and enhance efficiency as they may be sufficient for a substantial number of clients. This study explored the availability of this service delivery model across Canada. A sample of child and youth mental health (CYMH) agencies were identified and contacted using information obtained from publicly available databases (i.e., Children's Mental Health Ontario, Kids Help Phone). The survey questions were formatted as multiple choice, yes/no, and open-ended questions, taking approximately 5-10 minutes with the option of online or phone-based completion. A total of 70 (62%) agencies participated in the survey between October 2019 and July 2020. Many (73% total sample; 69% random sample) of the CYMH agencies sampled across Canada are using this service delivery model.

2.2 Introduction

MHWCs are characterized by providing unscheduled, immediate support. Administrative hassles are removed, as families do not need to make phone calls, schedule appointments, or attend comprehensive intakes prior to receiving services (Bloom & Tam, 2015; Slive & Bobele, 2012). MHWCs also result in more efficient use of resources as they circumvent the need for comprehensive intake assessment and the issue of missed appointments. The following sections briefly review previous national and provincial surveys.

2.2.1 National and Provincial Surveys

A search of the scientific and grey literature identified three national and two provincial surveys. The first national and provincial surveys mentioned the availability of MHWCs, but other surveys did not. All provided useful methodological information that was used to inform the current study (e.g., recruitment approaches, format of surveys, expected response rates). As such, all surveys are briefly reviewed.

The first national survey examined wait times at CYMH agencies (Kowalewski et al., 2011; Vallerand & Mclennan, 2013). The authors established regional contacts (one per province, and one for all territories) who were tasked with inviting agencies to participate in the study. A web-based survey was distributed on three occasions by the regional contacts. The survey examined wait times, factors that influence wait times, and wait time management strategies. Overall, 31% of agencies responded to the survey. Of these, 50% reported using MHWCs; no further information about MHWCs (e.g., break down by province) was provided (Vallerand & Mclennan, 2013).

The second national survey explored program manager's perspectives on CYMH services for concurrent disorders (i.e., substance use and mental health) for youth and young adults (Henderson et al., 2015). The authors used online service registries maintained by provincial governments and web searches to identify programs. Each program was contacted to confirm the provision of services for concurrent disorders and to obtain the contact information for a program manager. A web-based survey was distributed by the authors to the program managers on three occasions. Overall, 48% of the programs responded to the survey.

The third national survey explored cross-sectorial (i.e., addictions, child welfare, education, health, housing, mental health, youth justice, other social services) integration of services for youth and young adults (McGihon et al., 2018). A survey was distributed during a one-day capacity building workshop to sites participating in the National Youth Screening Project; this initiative aimed to enhance use of evidence-based practices in substance use treatment for youth in Canada.

The first Ontario provincial survey reviewed the literature and conducted a short survey to support the implementation and use of brief services in Ontario (Duvall et al., 2012). The Ontario Centre for Excellence in CYMH recruited Children's Mental Health Ontario affiliated agencies using the e-mail lists of clinical directors. A web-based survey was distributed. Overall, 20% of agencies responded to the survey. They found that 50% of agencies offered MHWCs.

The second provincial survey explored the services available to children and youth with depression in Ontario (Watson et al., 2019). The authors used web-searches and governmental/regulatory/accreditation bodies (e.g., Children's Mental Health Ontario, Ontario Network of Child and Adolescent Inpatient Psychiatry services) to identify programs. Each program was contacted to confirm the availability of services and obtain the contact information of a program manager. A web-based survey was distributed to the program managers. Overall, 61% of program managers responded to the survey. There were no questions specific to MHWCs in this survey.

In summary, the limited literature on the availability of this service model suggests that about 50% of CYMH agencies in Canada (Vallerand & Mclennan, 2013) and 50% of the agencies in Ontario offer MHWCs (Duvall et al., 2012). Previous surveys have recruited participants in one of four ways: a regional contact that invites programs/agencies, directly contacting programs/agencies through publicly available resources (e.g., web searches, governmental/regulatory/accreditation bodies), directly contacting programs/agencies through non-publicly available resources (e.g., listservs), and directly contacting programs/agencies that are participating in a larger project. All surveys have been web-based. Response rates range for national surveys range from 31% to 48%, and provincial surveys range from 20% to 61%. Of note, not all surveys recruited from all possible agencies. The use of regional contacts (Kowalewski et

al., 2011) did not substantively increase response rates. As such, the current study first phoned agencies with follow-up to non-respondents done by email.

2.3 Current Study

The findings presented above have been limited by relatively low response rates and may not reflect current provision of services as data were gathered in the early 2010's. The current study sought to address these limitations. The objective was to explore the current availability of MHWCs across Canada.

2.4 Methods

The current study was part of a larger national survey that explored different approaches to address service shortfalls (Sarmiento et al., 2021a, 2021b). This included the use of stepped-care models and availability of MHWCs across Canada. The current study focused on the MHWC component.

2.4.1 Sampling Strategy

There were two primary data sources used to identify CYMH agencies that could be recruited for the national survey. First, a Kids Help Phone database of counselling and mental health records across Canada. Second, a Children's Mental Health Ontario (CMHO) database extracted from their website. The CMHO database was used to identify CYMH agencies in Ontario and the Kids Help Phone database to identify agencies outside of Ontario. The CMHO database was used in Ontario, as it was considered to be one of the most reliable and relevant sources of CYMH agencies in the province.

The number of agencies to be selected at random per province/territory was based on two factors. First, balancing feasibility and breadth. Approaching ~100 agencies would yield 30-50 responses (based on response rates from other surveys), which would provide a scan of agencies across Canada that could be recruited within a reasonable timeframe. Further, Quebec was excluded because it required research assistants and investigators to be fluent in French to recruit agencies, complete the survey, and interpret responses. Second, basing the number of agencies per province/territory on the population size in 2017, using Statistics Canada data (see Table 2.1). For

example, Alberta's population constitutes 15% of Canada's population (excluding Quebec) and so 15 agencies were randomly selected form this province.

In addition, a targeted approach was used to recruit more agencies in Ontario. This was done as part of the process to recruit agencies for other studies on MHWC. An Ontario CYMH database was provided by the Kids Help Phone and used for this purpose. Websites from all agencies listed were examined to determine whether they were likely to meet the inclusion/exclusion criteria, and 12 were identified. These agencies were first asked to complete the national survey and where then invited to complete the provincial survey (if eligible; see Chapter 3).

A total of 113 agencies across Canada were contacted (n=101 random selection; n=12 targeted selection). Table 2.1 shows the breakdown by province.

Table 2.1: Sampling strategy and enrolment for the national survey.

Province/ Territory	Population in 2017	Random Selection	Targeted Selection	Contacted	Completed
	n (%)	n	n	n	n (%)
Alberta	4 286 134 (15.1%)	15	-	15	9 (60.0%)
British Columbia	4 817 160 (17.0%)	17	-	17	7 (41.2%)
Manitoba	1 338 109 (4.7%)	5	-	5	3 (60.0%)
Newfoundland and Labrador	528 817 (1.9%)	2	-	2	0 (0%)
New Brunswick	759 655 (2.7%)	3	-	3	0 (0%)
Nova Scotia	953 869 (3.4%)	3	-	3	2 (66.7%)
Ontario	14 193 384 (50.1%)	50	12	62	48 (77.4%)
Prince Edward Island	152 021 (0.5%)	1	-	1	0 (0%)
Saskatchewan	1 163 925 (4.1%)	4	-	4	1 (25.0%)

Territories	120 975 (0.4%)	1		1	0 (0%)
Total	28 314 049 (100%)	101	12	113	70 (61.9%)

Note. Quebec was not included as it required research assistants and investigators to be fluent in French to recruit agencies, complete the survey, and interpret responses. Territories were grouped given the small population sizes.

2.4.2 Inclusion and Exclusion Criteria

The mental health service network for children and families in Ontario is complex. This is because children and families can receive services from different sectors, including health (e.g., CYMH agencies, family health teams, hospitals, pediatricians, psychiatrists), education, child welfare, juvenile justice, and private (e.g., psychologists, social workers) sectors. The pathway to access these services varies (e.g., self-referral for CYMH agencies; family physician referral for pediatricians and psychiatrists) as does the funding/cost (e.g., publicly funded CYMH agencies; fee-for-service psychologists and social workers; Reid & Brown, 2008). It is also important to note that there are significant differences in the service mandates even within the same sector and type of mental health provider. For example, CYMH agencies in the health sector can serve the entire community (e.g., population living within a delimited geographic area) or a subset of the community (e.g., subset of a population, like First Nations, living within a given geographic area). An agency can provide services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance) or only for specific concerns (e.g., addictions only). Services may also be offered in a variety of different formats/settings (e.g., phone *and* face-to-face; outpatient *and* residential) or only in one format/setting (e.g., phone only; residential care only).

The current study sought to identify CYMH agencies: serving the entire community (i.e., population living within a given geographic area), providing services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance), and delivering services in a range of formats and settings (e.g., phone *and* face-to-face; outpatient *and* residential).

The inclusion criteria were as follows: (a) serve children birth-18 years or a subset of this population, (b) no fees for mental health services, and (c) providing face-to-face services (pre COVID-19 pandemic). The exclusion criteria were as follows: (a) primarily focus on specific disorders (e.g., addictions, developmental disorders, disabilities, bereavement, palliative care, health, criminality/justice system), (b) provides only informal supports (e.g., peer support), (c) provides non-mental health services (e.g., employment, housing), (d) do not provide outpatient services (i.e., only residential or day treatment), and (e) serving specific subset of the community (e.g., LGBTQ, First Nations/Indigenous). The inclusion and exclusion criteria were applied after the agencies completed the survey given the length and time requirement (~5 minutes).

2.4.3 Recruitment Strategy

Research assistants (RAs) and the author called the selected agencies using publicly listed information. Information about the study was provided and the agency was invited to participate. If another person was better suited to answer the survey, the RA or author contacted them. The RA or author asked the respondent to complete the survey over the phone or sent the Qualtrics link via email during the phone call. Participants that expressed interest in the online version were sent 3 reminder e-mails with 2-week intervals. This recruitment strategy was based on research showing that pre-notification (Anseel et al., 2010; Mellahi & Harris, 2016) and follow-ups increase response odds (Cook et al., 2000; McPeake et al., 2013; Sheehan, 2001), and invalid emails are a significant problem (McPeake et al., 2013). The option of an online version with reminders is consistent with previous national and provincial surveys (Duvall et al., 2012; Henderson et al., 2015; Kowalewski et al., 2011; Watson et al., 2019).

Some agencies or the recommended contact within the agency could not be reached over the phone. These agencies/contacts were sent an email introducing the study and inviting them to participate in the survey. Public sources were used to obtain the e-mail of the agency or recommended contact. If the e-mail was not publicly available, the RA or author called the agency to request that the person to whom they were speaking to forward an introduction e-mail to the recommended person.

Recruitment started in October 2019 and ended in July 2020. There was a hiatus between March and May 2020 due to the COVID-19 pandemic restrictions that prohibited access to the university campus for the RAs and investigators and affected the operation of CYMH agencies.

Overall, 70 out of the 113 agencies completed the national survey, yielding a 62% response rate. Response rates varied substantially from 0% in the territories and small provinces (New Brunswick, Newfoundland and Labrador, and Prince Edward Island) to 77.4% in Ontario. Of these 70 agencies that completed the survey, 44 met the inclusion and exclusion criteria. Figure 2.1 provides an outline of the recruitment and eligibility process.

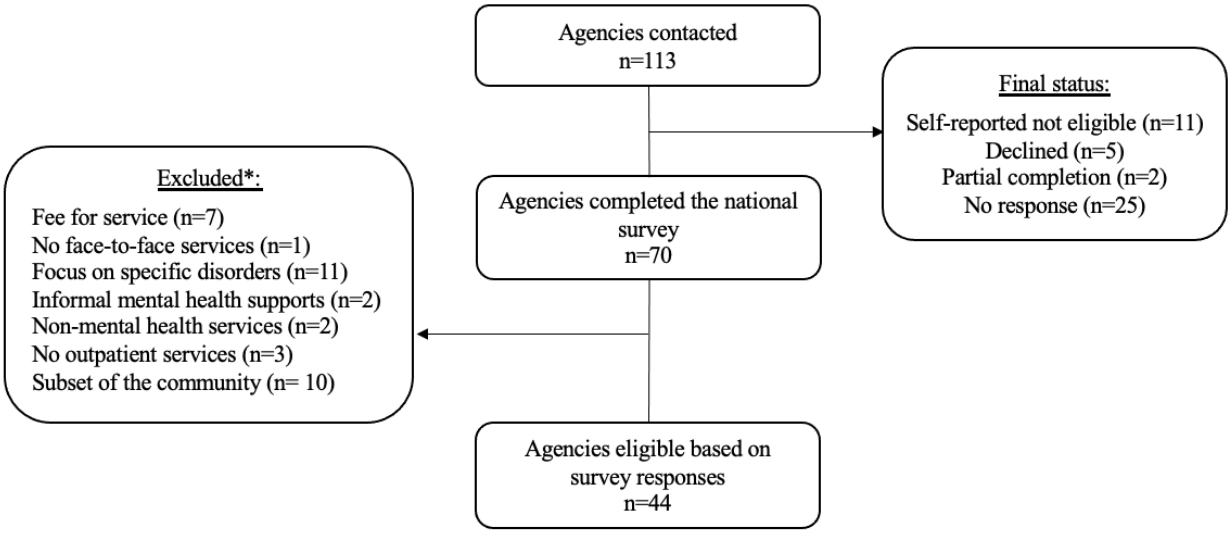

Figure 2.1: Recruitment and eligibility of agencies for the national survey.
*Agencies could meet multiple exclusion criteria.

2.4.4 Participants

The survey was completed by managers (29.5%), directors (15.9%), coordinators (13.6%), administrative and support staff (11.4%), intake workers (9.1%), therapists (6.8%), supervisors (6.8%), executive directors (4.5%), and others (e.g., operations officer; 2.3%). Participants' educational backgrounds included social worker (36.4%), office administration (9.1%), psychology (6.8%), psychotherapy/counselling (6.8%), child and youth worker (6.8%), child and youth worker *and* social worker (4.5%), social worker (2.3%), nursing (2.3%), other bachelor degree (9.1%), and other (e.g., law; 15.9%).

Participants had been working at their respective agencies between 0.5 and 30 years with a mean of 11.98 years (8.78 SD). The majority of respondents identified their biological sex and gender as female (81.4%).

2.4.5 Survey

The survey questions were formatted as multiple choice, yes/no, and open-ended questions, taking 5-10 minutes with the option of online or phone-based completion.

Informed consent was obtained before the participants began the survey. The survey gathered information about the (1) agencies (e.g., address, population served, funding); (2) types of services provided (e.g., face-to-face, crisis, MHWCs); (3) participant (e.g., job title, educational background). The length (under 30 minutes) and formatting of the online survey (e.g., screen design, progress bars) were informed by the literature on survey response rates (Vicente & Reis, 2010).

2.4.6 Web Searches

The website for each agency that completed the survey was examined in April-May 2020 to determine whether MHWCs were advertised or listed as a service. These data were compared with the survey data.

2.5 Data Analyses

A total of 33 surveys were completed over the phone and 11 on Qualtrics. Responses were analyzed in SPSS (Version 27) and were descriptive, given the exploratory nature of the survey.

2.6 Findings

Seventy five percent of agencies served all children between the ages of birth-18 years and 25% served a subset of this population (e.g., birth-12 years).

Overall, 72.7% (32/44) of agencies across Canada reported that they offer MHWCs. Of the agencies in the random sample, 69.2% (27/39) offer MHWCs.

Of the agencies that reported that they offer MHWCs, 78.1% (25/32) advertised or listed the service on their website, 15.6% (5/32) did not mention the service on their website, and for 6.3% (2/32) a website could not be found.

2.7 Discussion

The current survey explored the availability of MHWCs. It found that 73% of CYMH agencies in the total sample, and 69% of CYMH agencies in the random sample offer MHWCs. This is higher than the 50% reported in previous national and provincial surveys (Duvall et al., 2012; Vallerand & Mclennan, 2013). Interestingly, not all agencies advertised the service on their website. It is, however, possible that other forms of advertisement are being used (e.g., social media). The response from agencies was very positive, yielding a response rate of 62%. This is relatively high considering that response rates from other Canadian national surveys range from 31% to 48% (Henderson et al., 2015; Kowalewski et al., 2011; Vallerand & Mclennan, 2013), and provincial surveys range from 20% to 61% (Duvall et al., 2012; Watson et al., 2019).

There are some limitations worth noting. First and foremost, agencies were asked a few follow-up questions about how services were delivered. For example, they were asked whether there was a limit to the number of MHWC visits a family could have, what that limit was, and how agencies would proceed once that limit is reached. Anecdotally, participants found these questions more difficult to answer and many responded that they were unsure; as such, these findings were not reported. The provincial survey (Chapter 3) sought to address this limitation by adjusting recruitment procedures. Whereas the national survey prioritized accessibility of participants (i.e., agency staff available and willing to answer the survey), the provincial survey prioritized knowledge and position of participants (i.e., inviting the executive director or counterpart of each agency to complete or asking them to send the survey to the most appropriate person).

Second, there was a substantial list of inclusion and exclusion criteria. As such, the results are only generalizable to CYMH agencies serving the entire community (i.e., population living within a given geographic area) that provide services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance) and in different formats/settings (e.g., phone, face-to-face; outpatient, residential). The availability of MHWCs may be different in agencies providing services for different populations or presenting concerns.

Lastly, the large majority of agencies that participated in the study were from Ontario. Given that each province has a different organization and policies for mental health services (Kutcher et al., 2010), it is possible that the availability may vary from province to province. A future national survey, sampling a larger proportion of CYMH agencies, would be useful in further understanding the availability of MHWCs.

2.8 References

Anseel, F., Lievens, F., Schollaert, E., & Choragwicka, B. (2010). Response rates in organizational science, 1995–2008: A meta-analytic review and guidelines for survey researchers. *Journal of Business and Psychology*, *25*(3), 335–349.

Bloom, K., & Tam, J. A. (2015). Walk-in services for child and family mental health. *Journal of Systemic Therapies*, *34*(1), 61–77.

Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web- or internet-based surveys. *Educational and Psychological Measurement*, *60*(6), 821–836.

Duvall, J., Young, K., & Kays-Burden, A. (2012). *No more, no less: Brief mental health services for children and youth*. http://www.excellenceforchildandyouth.ca/sites/default/files/resource/policy_brief_mental_health_services.pdf

Henderson, J. L., Chaim, G., Luca, S., Brownlie, E. B., Rosenkranz, S., Skilling, T. A., & Beitchman, J. H. (2015). Program manager perspectives on the service system to meet the needs of youth with concurrent disorders: Findings from a Canadian national survey. *BMC Health Services Research*, *15*(1), 1–9.

Kowalewski, K., McLennan, J. D., & McGrath, P. J. (2011). A preliminary investigation of wait times for child and adolescent mental health services in Canada. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *20*(2), 112–119.

Kutcher, S., Hampton, M. J., & Wilson, J. (2010). Child and adolescent mental health policy and plans in Canada: An analytical review. *The Canadian Journal of Psychiatry*, *55*(2), 100–107.

McGihon, R., Hawke, L. D., Chaim, G., & Henderson, J. (2018). Cross-sectoral integration in youth-focused health and social services in Canada: A social network analysis. *MBH Health Services Research*, *1*, 1–7.

McPeake, J., Bateson, M., & O'Neill, A. (2013). Electronic surveys: How to maximise success. *Nurse Researcher*, *21*(3), 24–26.

Mellahi, K., & Harris, L. C. (2016). Response rates in business and management research: An overview of current practice and suggestions for future direction. *British Journal of Management*, *27*(2), 426–437.

Reid, G. J., & Brown, J. B. (2008). Money, case complexity, and wait lists: Perspectives on problems and solutions at children's mental health centers in Ontario. *Journal of Behavioral Health Services and Research*, *35*(3), 334–346.

Sarmiento, C., Dossett, K., & Reid, G. J. (2021a, May). *Mental health walk-in clinics: A national feasibility study*. Poster presented at the Child Health Symposium, London, Ontario [Virtual conference due to COVID-19].

Sarmiento, C., Dossett, K., & Reid, G. J. (2021b, May). *Stepped care models: A national feasibility study*. Poster presented at the London Health Research Day, London, Ontario [Virtual conference due to COVID-19].

Sheehan, K. B. (2001). Email survey response rates: A review. *Journal of Computer-Mediated Communication*, *6*(2).

Slive, A., & Bobele, M. (2012). Walk-in counselling services: Making the most of one hour. *Australian and New Zealand Journal of Family Therapy*, *33*(1), 27–38.

Vallerand, I. A., & Mclennan, J. D. (2013). Child and adolescent mental health service management strategies that may influence wait times. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *22*(2), 159–165.

Vicente, P., & Reis, E. (2010). Using questionnaire design to fight nonresponse bias in web surveys. *Social Science Computer Review*, *28*(2), 251–267.

Watson, P., Mehra, K., Hawke, L. D., & Henderson, J. (2019). Service provision for depressed children and youth: A survey of the scope and nature of services in Ontario. *BMC Health Services Research*, *19*(1), 1–12.

Chapter 3

3 Mental Health Walk-In Clinics for Children and Families: A Provincial Survey

3.1 Abstract

Mental health walk-in clinics (MHWCs) provide unscheduled and immediate support to children and families and remove common administrative barriers. This study explored the implementation of MHWCs across Ontario, CA. A brief provincial survey was conducted to identify agencies that provided MHWCs, which were then invited to complete an in-depth survey. The in-depth survey questions were formatted as multiple choice, yes/no, Likert scale, and open-ended questions, taking 20-25 minutes with the option of online or phone-based completion. A total of 18 agencies (86%) participated in the in-depth survey between September 2020 and April 2021. MHWCs are being used to provide timely and accessible services, as well as to serve as a point of intake. MHWCs are provided in different locations (e.g., agencies, schools) using different modalities (e.g., consulting break) and approaches (e.g., cognitive behavioral therapy, narrative therapy, solution focused therapy). Most agencies quickly adapted to COVID-19 restrictions by providing virtual MHWCs. The most common reasons for implementing MHWCs were to reduce waitlists, the strong evidence base, and an effort to meet families' needs. Different benefits and challenges associated with the implementation of MHWCs were reported. The results of this provincial study help better understand the implementation of MHWCs and how agencies adapted to COVID-19 and associated restrictions.

3.2 Introduction

A recent epidemiological study in Ontario found that 18% to 20% of children and youth have one or more mental health disorders that cause significant impairment (Waddell et al., 2019). While the prevalence of disorders has increased a small amount (2%) in the past 30 years, the percentage of parents/youth feeling the need for services has more than doubled, from 7% to 19% (Comeau et al., 2019; Waddell et al., 2019). Access to mental health services, however, remains difficult for children and families. Children's Mental Health Ontario reported that waitlists have continued to grow and in 2020, about 28,000 children and youth were waiting as long as 2.5 years for services (Children's Mental Health Ontario, 2020).

Brief services can complement existing services and help meet the increasing demand. Scheduled single session therapy and unscheduled single session therapy (i.e., MHWCs) are two common brief service delivery models that have high client satisfaction (Bhanot-Malhotra et al., 2010; Miller & Slive, 2004; Slive et al., 2008; Slive & Bobele, 2012). These service delivery models treat each session as if it will be the only session with a client (Perkins, 2006). MHWCs differ from scheduled single session therapy, in that they provide unscheduled and immediate support to children and families. There is no need to make phone calls, schedule appointments, or to complete comprehensive intakes prior to receiving services (Bloom & Tam, 2015; Slive & Bobele, 2012). MHWCs also result in more efficient use of resources as they circumvent the issue of missed appointments.

MHWCs are a service delivery model, rather than a treatment; different modalities and approaches can be used (J. Young, 2018). *Modality* involves the format in which the service is delivered. Modalities used in MHWCs have been reported to include a clinician(s) working alone with a client, a consulting break (i.e., break where the clinician consults with another clinician, supervisor, or team), a reflecting team (i.e., team of clinicians who observe the session and then discuss amongst themselves what they noticed; the lead clinician and client listen to this discussion), and an outsider witness (i.e., someone from the client's network or someone invited by the clinician; Bhanot-Malhotra et al., 2010; Levin et al., 2018; Miller & Slive, 2004; Slive et al., 2008; Stewart et al., 2018; K. Young, 2018; K. Young & Bhanot-Malhotra, 2014). *Approach* involves the therapeutic orientation used in providing the service. MHWCs have been reported to

commonly use narrative therapy, cognitive behavioral therapy, and solution-focused therapy (Bloom & Tam, 2015; Duvall et al., 2012; Josling & Cait, 2018; Slive et al., 2008; Stalker et al., 2016; K. Young, 2008; K. Young & Bhanot-Malhotra, 2014).

Different reasons for implementing MHWCs mentioned in the literature include response to long waitlists, response to community consultation, effort to improve accessibility, effort to increase efficiency, new leadership within the agency, and policies (Bhanot-Malhotra et al., 2010; Hoyt et al., 2018; Miller & Slive, 2004; Slive et al., 2008; Slive & Bobele, 2012, 2018; Stalker et al., 2012, 2016; K. Young, 2018; K. Young & Bhanot-Malhotra, 2014). In Ontario, the Centre of Excellence for Child and Youth Mental Health published a policy-ready paper on brief services in 2012. This paper was used by the Ministry of Children and Youth Services to inform a system transition process that started in 2015. The system transition process required that agencies receiving funding from the Ministry provide brief services, which included but was not limited to MHWCs (K. Young, 2018).

Some benefits and challenges associated with MHWCs have also been mentioned in the literature. Benefits include reducing wait lists, diverting clients away from more costly health services, reducing over treatment, reducing no show rates for sessions scheduled after a MHWC visit, and improving staff morale/satisfaction (Bhanot-Malhotra et al., 2010; Duvall et al., 2012; Horton et al., 2012; Slive & Bobele, 2018; Stalker et al., 2012; Stewart et al., 2018). Challenges include estimating the amount of staffing needed, and clients wanting to see the same therapist if they return for services and requesting longer sessions (Bloom & Tam, 2015; Josling & Cait, 2018).

3.3 Current Study

The findings presented above have generally been based on information from just a couple of agencies. There is a need to better understand the implementation of MHWCs across Ontario, as well as the role that they play within agencies. The current study addresses some of these gaps in the literature. The survey also inquired about the impact of COVID-19 on MHWCs, given that it was conducted during the pandemic. The objectives were to explore: (1) intake procedures and how MHWCs fit in within these; (2) logistical and therapeutic aspects of the implementation of

MHWCs; (3) factors driving and affecting the implementation of MHWCs; and (4) how the COVID-19 pandemic impacted MHWCs and how agencies adapted.

3.4 Methods

3.4.1 Sampling and Recruitment

Sixty-two agencies in Ontario were selected and asked to participate in the national survey (see Chapter 2), which inquired about the agency characteristics and whether they provided MHWCs. Of these, 48 agencies completed the brief 5-minute survey. Agencies that met the following eligibility criteria were then invited to participate in the in-depth provincial survey.

The mental health service network for children and families in Ontario is complex. This is because children and families can receive services from different sectors, including health (e.g., CYMH agencies, family health teams, hospitals, pediatricians, psychiatrists), education, child welfare, juvenile justice, and private (e.g., psychologists, social workers) sectors. The pathway to access these services varies (e.g., self-referral for CYMH agencies; family physician referral for pediatricians and psychiatrists) as does the funding/cost (e.g., publicly funded CYMH agencies; fee-for-service psychologists and social workers; Reid & Brown, 2008). It is also important to note that there are significant differences in the service mandates even within the same sector and type of mental health provider. For example, CYMH agencies in the health sector can serve the entire community (e.g., population living within a delimited geographic area) or a subset of the community (e.g., subset of a population, like First Nations, living within a given geographic area), and children of all ages (i.e., birth-18 years) or a subset of children (e.g., birth-12 years). An agency can provide services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance) or only for specific concerns (e.g., addictions only). Services may also be offered in a variety of different formats/settings (e.g., phone *and* face-to-face; outpatient *and* residential) or only in one format/setting (e.g., phone only; residential care only).

The current study sought to identify CYMH agencies: serving all children (i.e., birth to 18) in the entire community (i.e., population living within a given geographic area), providing services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-

compliance), and delivering services in a range of formats and settings (e.g., phone *and* face-to-face; outpatient *and* residential).

The inclusion criteria were as follows: (a) serve children birth-18 years, (b) no fee for mental health services, (c) provide face-to-face mental health services (prior to COVID-19), d) providing MHWCs, and e) consented to be contacted for future studies. The exclusion criteria were as follows: (a) primarily focus on specific disorders (e.g., addictions, developmental disorders, disabilities, bereavement, palliative care, health, criminality/justice system), (b) provide only informal supports (e.g., peer support), (c) provide only non-mental health services (e.g., employment, housing), (d) do not provide outpatient services (i.e., only residential or day treatment), and (e) serve specific subset of the community (e.g., aboriginal/indigenous).

Overall, 22 agencies met the inclusion criteria. Two of these agencies amalgamated in 2020, after the brief survey was completed and before the recruitment for the in-depth survey started. This reduced the total number of agencies to 21. An email inviting the agencies to participate in the study was sent with up to 3 reminders. Specifically, the executive director or counterpart of each agency was invited to complete or asked to send the survey to the most appropriate person. A total of 18 agencies participated in the in-depth survey between September 2020 and April 2021 (17 full completion, 1 partial completion), yielding a response rate of 86%. The study received ethics approval by the University of Western Ontario Research Ethics Board (#115545).

3.4.2 Participants

The in-depth survey was completed by directors (44.4%), executive directors (5.6%), managers (27.8%), and senior program leads (5.6%). Participants' educational backgrounds included social worker (55.6%), psychotherapist (16.7%), psychologist (11.1%), and child and youth worker (5.6%). The title of 16.7% of participants, and the educational background of 11.1% of participants were unknown due to non-responses.

Participants had been working at their respective organizations between 2.5 and 40 years with a mean of 19.4 years (SD = 12.2). The majority of participants identified their biological sex and gender as female (72.2%).

3.4.3 Survey

The survey questions were formatted as multiple choice, yes/no, Likert scale (e.g., likelihood to continue virtual MHWCs after COVID-19 restrictions are lifted rated from "1-not at all likely" to "5-extremely likely"), and open-ended questions, taking 20-25 minutes with the option of online or phone-based completion.

Informed consent was obtained before the participants began the survey. The survey gathered information about (1) intake procedures and how MHWCs fit in within these; (2) logistical and therapeutic aspects of the implementation of MHWCs; (3) factors driving and affecting the implementation of MHWCs; (4) how COVID-19 impacted MHWCs and intake services and how agencies adapted; and (5) characteristics of the agency and the participant. No compensation was provided. The length (under 30 minutes) and formatting of the online survey (e.g., screen design, progress bars) were informed by the literature on survey response rates (Vicente & Reis, 2010).

3.4.4 Data Analysis

All participants opted to complete the survey online via Qualtrics. Responses were analyzed in SPSS (Version 27) and were primarily descriptive, given the exploratory nature of the survey. For most items, participants could select more than one response (e.g., intake methods, locations). As such, percentages can sum to more than 100%.

3.5 Findings

The findings are presented in four sections, following the study objectives.

3.5.1 Intake Procedures and How MHWCs Fit In Within These

Intakes at agencies can be completed in several ways (see Table 3.1), including over the phone, in-person, at a MHWC, and other (e.g., centralized intake system). Overall, 22.2% use one method for intakes and 77.8% use two or more methods. For agencies that use just one method for intakes, the most common is over the phone (75%; 3/4). For agencies that use more than one method for intakes, the most common is also by phone (100%; 14/14) followed by in-person

(85.7%; 12/14) and MHWCs (57.1%; 8/14). For most agencies, families that access MHWCs for a single session still have to complete an intake in order to receive additional mental health services (72.2%).

Table 3.1: Intake procedures and how MHWCs fit in within these.

	n (%)
One method for intakes	4 (22.2%)
Intake can be done over the phone	3 (75%)
Other intake methods	1 (25%)
Two or more methods for intakes	14 (77.8%)
Intake can be done over the phone	14 (100%)
Intake can be done in person	12 (85.7%)
Intake can be done at a MHWC	8 (57.1%)
Other intake methods	7 (50%)
MHWCs and additional intake	
Families using MHWC need to complete intake to access other services[1]	13 (72.2%)

Note. Percentages reported are within each of the subgroups.
[1] n = 18.

3.5.2 Logistical and Therapeutic Aspects of the Implementation of MHWCs

Logistical Aspects

MHWCs had been implemented for between 1.5 and 21 years (M = 7.6, SD = 5.6). A third of the agencies (33.3%) are providing MHWCs in collaboration with other agencies. Most agencies indicated that the MHWCs are provided at multiple locations (88.9%). These locations include the agency itself (94.4%), community centers (16.7%), schools (22.2%), doctor's offices (16.7%), and other locations (33.3%; e.g., youth hub, private practice, shared community office space, rented office space).

Agencies collect different types of information from families at the MHWCs. These encompassed participants present (e.g., child, parent; 100%), demographics (100%), presenting concern(s) (100%), severity of the presenting concern(s) (82.4%), other mental health services currently being accessed (94.1%), and previous involvement at that agency (100%). A few

agencies are using validated measures (e.g., Partners for Change Outcome Management System, Single Session Impressions and Feedback Tool; 23.5%). Most agencies reported that they are conducting (58.8%) or have conducted (29.4%) program evaluation for the MHWCs, and almost all routinely ask about satisfaction with services (88.2%).

A minority of agencies (22.2%%) have a limit to the number of MHWC visits for a family. The limit is based on different factors: two agencies indicated it is based on the number of sessions (e.g., 1 MHWC session and 1-2 follow-ups; up to 4 MHWC sessions), one indicated it is based on the number of spots available at the MHWC clinic, and one indicated it is based on whether there is a pattern of MHWC use. When agencies limited the number of MHWC sessions, they try to connect families with other services in their agency (e.g., ongoing counselling; see Table 3.2).

Therapeutic Aspects

Clinicians providing MHWC services included social workers (100%), registered psychotherapists (94.1%), family therapists (47.1%), child and youth workers (29.4%), child behavior consultants (11.8%), peer support workers (5.9%), occupational therapists (5.9%), psychologists (5.9%), and other (17.6%; e.g., non-registered psychotherapist). Different modalities are being used at the MHWCs, including sessions with a consulting break (76.5%), without a consulting break (58.8%), with an outsider witness (23.5%), with a reflecting team (11.8%), and other (23.5%; e.g., supervisor available if needed, two clinicians and follow-up with supervisor the following day, two clinicians with one being a "subject matter expert" to provide psychoeducation). Multiple different approaches/therapeutic orientations are being used within and across MHWCs, including narrative therapy (88.2%), solution-focused therapy (88.2%), cognitive behavioral therapy (88.2%), supportive therapy (47.1%), choice and partnership approach (5.9%), and other (29.4%; e.g., trauma-focused, behavioral, dialectical behavior therapy, motivational interviewing, dyadic developmental psychotherapy, feedback-informed treatment). The fidelity to the therapeutic approach is evaluated in over half of the agencies (58.8%), most often through supervision (see Table 3.2).

Table 3.2: Logistical and therapeutic aspects of the implementation of MHWCs.

	n (%) or M (range, SD)
Logistical Aspects	
Implementation of MHWCs[1]	7.6 (1.5-21 years; SD = 5.6)
Collaboration with another agency[1]	6 (33.3%)
Multiple MHWCs locations[1]	16 (88.9%)
Location of MHWCs[1]	
Agency	17 (94.4%)
School	4 (22.2%)
Community center	3 (16.7%)
Doctor's office	3 (16.7%)
Other	6 (33.3%)
Information that is routinely collected[2]	
Participants	17 (100%)
Demographics	17 (100%)
Presenting concern(s)	17 (100%)
Previous involvement at that agency	17 (100%)
Other mental health services currently being accessed	16 (94.1%)
Satisfaction with services	15 (88.2%)
Severity rating of the presenting concern (s)	14 (82.4%)
Validated measure	4 (23.5%)
Program evaluation[2]	
Ongoing	10 (18.8%)
Past	5 (29.4%)
Limit to the number of visits[1]	4 (22.2%)
Therapeutic Aspects	
Types of clinicians providing services[2]	
Social worker	17 (100%)
Registered psychotherapist	16 (94.1%)
Family therapist	8 (47.1%)
Child and youth worker	5 (29.4%)
Child behavior consultant	2 (11.8%)
Peer support worker	1 (5.9%)
Occupational therapist	1 (5.9%)
Psychologist	1 (5.9%)

Other	3 (17.6%)
Modality[2]	
With consulting break	13 (76.5%)
Without consulting break	10 (58.8%)
Outsider witness	4 (23.5%)
Reflecting team	2 (11.8%)
Other	4 (23.5%)
Approach[2]	
Narrative therapy	15 (88.2%)
Solution-focused therapy	15 (88.2%)
Cognitive behavioral therapy	15 (88.2%)
Supportive therapy	8 (47.1%)
Choice and partnership approach	1 (5.9%)
Other	5 (29.4%)
Evaluating fidelity of approach[2]	10 (58.8%)

[1] n = 18, [2] n =17.

3.5.3 Factors Driving and Affecting the Implementation of MHWCs

MHWCs were implemented for multiple reasons (see Table 3.3), including to reduce wait lists (100%), the strong evidence base (100%), to meet families' needs (100%), in response to families' feedback or requests (76.5%), government or provincial requirement (35.3%), and other reasons (17.6%; e.g., meeting families' needs when the issue is less embedded, client-centered care). MHWCs were perceived to have different benefits for agencies, including reduced wait lists (94.1%), higher client satisfaction (88.2%), higher clinician satisfaction (88.2%), better client outcomes (88.2%), lower demand on other agency services (76.5%), reduced costs (29.4%), and other (e.g., families can access services as needed, which can prevent deterioration in functioning; effective training method for newer staff; good or comparable client outcomes; 35.3%).

There are, however, a number of barrier or challenges with implementing MHWCs, such as limited funding (58.8%), limited space or difficulty finding space (52.9%), serving the volume of clients (47.1%), families requesting to see the same clinician they saw in a previous visit (41.2%), finding clinicians (29.4%), and families returning multiple times (11.8%). Other reasons were also reported (e.g., low volume of clients, clients attending for the purposes of court documentation; 35.3%).

Table 3.3: Factors driving and affecting the implementation of MHWCs.

	n (%)
Reasons for implementation[1]	
Reduce waitlists	17 (100%)
Strong evidence base	17 (100%)
Meeting families' needs	17 (100%)
Government or provincial requirement	6 (35.3%)
Response to families' feedback	13 (76.5%)
Other	3 (17.6%)
Perceived benefits of implementation[1]	
Reduced waitlists	16 (94.1%)
Reduced costs	5 (29.4%)
Higher client satisfaction	15 (88.2%)
Higher clinician satisfaction	15 (88.2%)
Lower demand on other agency services	13 (76.5%)
Better client outcomes	15 (88.2%)
Other	6 (35.3%)
Perceived barriers/challenges of implementation[1]	
Limited funding	10 (58.8%)
Limited space or difficulty finding space	9 (52.9%)
Difficulty finding clinicians	5 (29.4%)
Serving volume of families	8 (47.1%)
Families returning multiple times	2 (11.8%)
Families requesting to see the same clinician they saw in a previous visit	7 (41.2%)
Other	6 (35.3%)

[1] n =17.

3.5.4 How the COVID-19 Pandemic Impacted MHWCs and How Agencies Adapted

For almost half of the agencies (44.4%), the COVID-19 pandemic impacted how intakes were completed (see Table 3.4). Generally, these agencies indicated they were not offering in-person sessions during the lockdown phases of the pandemic. One agency indicated they were no longer accepting new clients via standard intake and, instead, families were encouraged to use the MHWCs.

Most agencies are providing virtual MHWCs (77.8%) in response to COVID-19-related restrictions; one agency had been providing virtual MHWCs before this time. Virtual MHWCs take place over the phone (83.3%), through a videoconference platform (66.7%), and other methods (16.7%; e.g., Ontario Telemedicine Network). Agencies indicated that they were very likely to continue virtual MHWCs after COVID-19 restrictions are lifted (5-point Likert scale; M = 4.6, SD = 0.96). COVID-19-related restrictions appeared to impact the volume of clients seen at the MHWCs at most agencies with 58.8% reporting a decrease in volume, 35.3% an increase, and the remainder reporting no change.

Table 3.4: How the COVID-19 pandemic impacted MHWCs and how agencies adapted.

	n (%) or M (range, SD)
Intake procedures changed[1]	8 (44.4%)
Implementation of virtual MHWCs[1]	
Before COVID-19 restrictions	1 (5.6%)
After COVID-19 restrictions	14 (77.8%)
Virtual MHWCs[1]	
Phone	15 (83.3%)
Videoconference	12 (66.7%)
Other	3 (16.7%)
Likelihood to continue virtual MHWCs after COVID-19 restrictions are lifted[2]	4.6 (2-5; SD = 0.96)
Client volume changes with COVID-19[3]	
No change	1 (5.9%)
Increase	6 (35.3%)
Decrease	10 (58.8%)

[1] n = 18, [2] n =13, [3] n =17.

3.6 Discussion

The implementation of MHWCs in Ontario in the CYMH agencies sampled is relatively recent, considering that the first MHWC in Canada was established in 1990 by Wood's Homes Eastside Family Centre in Alberta (Hoyt et al., 2018; Stalker et al., 2012). Overall, it appears that MHWCs are used with the aim of providing timely and accessible services, as well as to serve as a point of intake. These are provided in different locations (e.g., agencies, schools, community

centers), likely making it easier for families to access the service. Few agencies have a limit to the number of visits, meaning that this service is available for families to use as much or as little as is needed. Anecdotally, there are capacity limits, such that families are asked to return another day if the available slots for that day are full; the impact of being turned away from a MHWC on re-accessing this service is unknown and should be examined. The modalities (e.g., consulting break) and approaches (e.g., cognitive behavioral therapy, narrative therapy, solution focused therapy) reported in this survey were many and map onto the existing literature (Bhanot-Malhotra et al., 2010; Bloom & Tam, 2015; Duvall et al., 2012; Miller & Slive, 2004; Stalker et al., 2016; K. Young & Bhanot-Malhotra, 2014).

The most common reasons for implementing MHWCs were to reduce waitlists, the strong evidence base behind this approach, and an effort to meet families' needs. Interestingly, a common perceived benefit was better outcomes, but no agency systematically tracked outcomes. The most common challenges were logistic – limited funding and space. These findings are generally in agreement with previous research (Bhanot-Malhotra et al., 2010; Bloom & Tam, 2015; Slive & Bobele, 2018; Stalker et al., 2012, 2016; K. Young & Bhanot-Malhotra, 2014). Of note, challenges with limited funding are not unique to this service delivery model. Rather it is a challenge in public mental health services more broadly (Children's Mental Health Ontario, 2020).

Most agencies quickly adapted to COVID-19 restrictions by providing virtual MHWCs. It is important to note that virtual MHWCs may require families to call and make an appointment and so this service delivery model would change from a MHWC to scheduled single session. COVID-19-related restrictions also affected the volume of clients seen at the MHWCs, with half of the agencies seeing a decrease and a third seeing an increase. The restrictions also affected intake procedures.

3.6.1 Strengths, Limitations, and Implications

To the best of the authors' knowledge, this is the first study to explore the implementation of MHWCs. It provides insights that can guide other researchers and agencies. For example, the current study found substantial diversity in the formats, modalities, and therapeutic orientations being used at the MHWCs. Researchers could examine the different MHWCs to identify the most efficient and effective service model. Agencies could use the information on the range of ways

other agencies deliver MHWCs to inform and, hopefully improve, the delivery of their own MHWCs. The response from agencies was very positive, yielding an 86% response rate. This is relatively high considering that response rates from other Canadian national surveys range from 31% to 48% (Henderson et al., 2015; Kowalewski et al., 2011; Vallerand & Mclennan, 2013), and provincial surveys range from 20% to 61% (Duvall et al., 2012; Watson et al., 2019).

There are some limitations worth noting. First, there was a substantial list of exclusion criteria. As such, the results are only generalizable to agencies serving all children (i.e., birth to 18 years) in the community (i.e., population living within a given geographic area), and that provide services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance) and in different formats/settings (e.g., phone, face-to-face; outpatient, residential). The implementation of MHWCs may be different in agencies providing services for different populations or presenting concerns. Second, the survey focused on CYMH agencies in Ontario. Given that each province has a different policy for mental health services (Kutcher et al., 2010), it is possible that the implementation may vary from province to province. Third, findings showed that there was a variable impact of the COVID-19 pandemic on the volume of clients at the MHWCs. Future research is needed to examine factors driving or influencing these changes. Fourth, the current study sheds some light on the implementation of MHWCs in Ontario, but it did not explore how families use this service. Future studies should examine how families use this service (e.g., descriptive statistics, correlates of recurrent service use) and how it fits in the service delivery pathway (e.g., used before, during, and/or after other services). Lastly, few studies have examined the effectiveness of MHWCs (e.g., Barwick et al., 2013; Bloom & Tam, 2015). These evaluations are challenging. Clinical trials are not possible as families cannot be randomly assigned to attend a MHWC, and follow-up studies suffer from attrition. A systematic, province-wide implementation of MHWCs and use of brief, standardized outcome measures would be very useful. It would allow, for example, for comparison of problem severity, impairment, and service use between families using MHWCs and families using other services.

3.7 References

Barwick, M., Urajnik, D., Sumner, L., Cohen, S., Reid, G., Engel, K., & Moore, J. E. (2013). Profiles and service utilization for children accessing a mental health walk-in clinic versus usual care. *Journal of Evidence-Based Social Work*, *10*(4), 338–352.

Bhanot-Malhotra, S., Livingstone, S., & Stalker, C. (2010). *An inventory of walk-in counselling clinics in Ontario*. http://www.briefnarrative.com/field-notes/walk-in-inventory.pdf

Bloom, K., & Tam, J. A. (2015). Walk-in services for child and family mental health. *Journal of Systemic Therapies*, *34*(1), 61–77.

Children's Mental Health Ontario. (2020). *Kids can't wait: 2020 report on wait lists and wait time for child and youth mental health care in Ontario*. https://cmho.org/wp-content/uploads/CMHO-Report-WaitTimes-2020.pdf

Comeau, J., Georgiades, K., Duncan, L., Wang, L., & Boyle, M. H. (2019). Changes in the prevalence of child and youth mental disorders and perceived need for professional help between 1983 and 2014: Evidence from the Ontario Child Health Study. *Canadian Journal of Psychiatry*, *64*(4), 256–264.

Duvall, J., Young, K., & Kays-Burden, A. (2012). *No more, no less: Brief mental health services for children and youth*. http://www.excellenceforchildandyouth.ca/sites/default/files/resource/policy_brief_mental_health_services.pdf

Henderson, J. L., Chaim, G., Luca, S., Brownlie, E. B., Rosenkranz, S., Skilling, T. A., & Beitchman, J. H. (2015). Program manager perspectives on the service system to meet the needs of youth with concurrent disorders: Findings from a Canadian national survey. *BMC Health Services Research*, *15*(1), 1–9.

Horton, S., Stalker, C., Cait, C.-A., & Josling, L. (2012). Sustaining walk-in counselling services. *Healthcare Quarterly*, *15*(3), 44–49.

Hoyt, M. F., Bobele, M., Slive, A., Young, K., & Talmon, M. (2018). Single-session/ one-at-a-

time walk-in therapy. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 3–24). Routledge.

Josling, L., & Cait, C.-A. (2018). The walk-in counselling model: Research and advocacy. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 91–103). Routledge.

Kowalewski, K., McLennan, J. D., & McGrath, P. J. (2011). A preliminary investigation of wait times for child and adolescent mental health services in Canada. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *20*(2), 112–119.

Kutcher, S., Hampton, M. J., & Wilson, J. (2010). Child and adolescent mental health policy and plans in Canada: An analytical review. *The Canadian Journal of Psychiatry*, *55*(2), 100–107.

Levin, S. B., Gil-Wilkerson, A., & Rapini De Yatim, S. (2018). Single-session walk-in as a collaborative learning community at the Houston Galveston Institute. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 251–259). Routledge.

Miller, J. K., & Slive, A. (2004). Breaking down the barriers to clinical service delivery: Walk-in family therapy. *Journal of Marital and Family Therapy*, *30*(1), 95–103.

Perkins, R. (2006). The effectiveness of one session of therapy using a single-session therapy approach for children and adolescents with mental health problems. *Psychology and Psychotherapy: Theory, Research and Practice*, *79*(2), 215–227.

Reid, G. J., & Brown, J. B. (2008). Money, case complexity, and wait lists: Perspectives on problems and solutions at children's mental health centers in Ontario. *Journal of Behavioral Health Services and Research*, *35*(3), 334–346.

Slive, A., & Bobele, M. (2012). Walk-in counselling services: Making the most of one hour. *Australian and New Zealand Journal of Family Therapy*, *33*(1), 27–38.

Slive, A., & Bobele, M. (2018). The three top reasons why walk-in/ single-sessions make perfect sense. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 27–39). Routledge.

Slive, A., McElheran, N., & Lawson, A. (2008). How brief does it get? Walk-in single session therapy. *Journal of Systemic Therapies*, *27*(4), 5–22.

Stalker, C. A., Horton, S., & Cait, C.-A. (2012). Single session therapy in a walk-in counselling clinic: A pilot study. *Journal of Systemic Therapies*, *31*(1), 38–52.

Stalker, C. A., Riemer, M., Cait, C. A., Horton, S., Booton, J., Josling, L., Bedggood, J., & Zaczek, M. (2016). A comparison of walk-in counselling and the wait list model for delivering counselling services. *Journal of Mental Health*, *25*(5), 403–409.

Stewart, J., McElheran, N., Park, H., Oakander, M., MacLaurin, B., Jing Fang, C., & Robinson, A. (2018). Twenty-five years of walk-in single-sessions at the Eastside Family Centre: Clinical and research dimensions. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 72–90). Routledge.

Vallerand, I. A., & Mclennan, J. D. (2013). Child and adolescent mental health service management strategies that may influence wait times. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *22*(2), 159–165.

Vicente, P., & Reis, E. (2010). Using questionnaire design to fight nonresponse bias in web surveys. *Social Science Computer Review*, *28*(2), 251–267.

Waddell, C., Georgiades, K., Duncan, L., Comeau, J., Reid, G. J., O'Briain, W., Lampard, R., & Boyle, M. H. (2019). 2014 Ontario child health study findings: Policy implications for Canada. *Canadian Journal of Psychiatry*, *64*(4), 227–231.

Watson, P., Mehra, K., Hawke, L. D., & Henderson, J. (2019). Service provision for depressed children and youth: A survey of the scope and nature of services in Ontario. *BMC Health Services Research*, *19*(1), 1–12.

Young, J. (2018). Single-session therapy: The misunderstood gift that keeps on giving. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 40–58). Routledge.

Young, K. (2008). Narrative practice at a walk-in therapy clinic: Developing children's worry wisdom. *Journal of Systemic Therapies*, *27*(4), 54–74.

Young, K. (2018). Change in the winds: The growth of walk-in therapy clinics in Ontario, Canada. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 59–71). Routledge.

Young, K., & Bhanot-Malhotra, S. (2014). *Getting services right: An Ontario multi-agency evaluation study*.

Chapter 4

4 Accessing and Re-Accessing Mental Health Walk-In Clinics for Children and Families

4.1 Abstract

Many child and youth mental health (CYMH) agencies across Canada and in Ontario are using mental health walk-in clinics (MHWC). The objectives of this study were to (1) explore how MHWCs are used by families (e.g., mean, mode, median number of visits); and (2) identify correlates of time to a second MHWC visit. Administrative data from two CYMH agencies in Ontario were extracted, including demographics, visit data, and presenting concerns. Across the two agencies, almost 3000 children had a MHWC visit. About a third of children and families using MHWCs had 2 or more visits. Child age, guardianship, and disposition at discharge emerged as correlates of time to a second MHWC visit. MHWCs can save families time, and agencies both time and money by eliminating the need to complete a comprehensive intake for cases that would go on to have a single visit within this service.

4.2 Introduction

Despite the high and growing need for help, only 26% to 34% of children with mental health problems receive specialized mental health services (Georgiades et al., 2019; Waddell et al., 2019). One of the main barriers to accessing mental health services are long wait lists. Children's Mental Health Ontario (2020), for example, reports that waitlists have continued to grow and 28,000 children and youth wait as long as 2.5 years for services. These concerning statistics have led researchers and policy-makers to call for changes to service delivery (Duvall et al., 2012; Waddell et al., 2019). Scheduled single session therapy (SST) and unscheduled SST (i.e., mental health walk-in clinics; MHWCs) are two forms of brief therapy that have gained attention and traction. These service delivery models treat each session as if it will be the only session with a client (Perkins, 2006). Each session has the three main components of a complete therapy: (a) getting to know the client, (b) exploring the issue, strengths, and resources, and (c) developing a plan (e.g., strategies to implement; Slive & Bobele, 2012).

MHWCs differ from scheduled SST in that they remove administrative hassles for families, including making phone calls, scheduling appointments, attending intakes, and waiting days to weeks for the service (Bloom & Tam, 2015; Slive & Bobele, 2012). A recent provincial survey of child and youth mental health (CYMH) agencies in Ontario examined the implementation of MHWCs in the province (see Chapter 3). The modalities (e.g., consulting break, outsider witness) and approaches (e.g., narrative therapy, solution-focused, therapy, and cognitive behavioral therapy) used were found to be flexible and varied. Social workers and registered psychotherapists were the most common providers of this service, which was provided from more than one location (e.g., agency, school community center, doctor's office) and likely make it easier for families to access.

Satisfaction with scheduled and unscheduled SST services has been high (Bhanot-Malhotra et al., 2010; Hymmen et al., 2013; Miller & Slive, 2004; Slive et al., 2008; Slive & Bobele, 2012). Generally, scheduled SST has been studied more extensively than MHWCs, which has allowed for literature reviews and meta-analyses. These have supported the use of scheduled SST for a number of presenting concerns, including anxiety, conduct problems, self-esteem, substance use, and general distress (Perkins, 2006; Schleider & Weisz, 2017b). The limited research on MHWCs

suggests perceived improvement in level of distress, confidence to address the problem, and hopefulness immediately after the session (Bhanot-Malhotra et al., 2010; Harper-Jaques et al., 2008); and improvement at follow-up on psychopathology, impairment, and distress (Barwick et al., 2013; Bhanot-Malhotra et al., 2010; Stalker et al., 2012).

The following sections briefly review the theoretical framework used in this study and relevant service use research.

4.3 Theoretical Framework

The Revised Network-Episode Model (Costello et al., 1998) provides a descriptive outline of 4 broad factors (and 76 nested variables), and the relationship between these factors that are thought to have direct and interactive effects on service use (see Appendix B, Figure B1). Applying this model to MHWCs suggests that social content factors, such as characteristics of the child, parent, and family (e.g., child age, child gender, presenting concern, parental marital status) and illness career factors, such as key exits (e.g., termination of care, referral) may impact service use. As such, these variables were examined in the current study.

4.4 MHWC Service Use

For scheduled SST, research has found that 50% of clients decide that a single session is adequate and do not schedule/attend further sessions (J. Young, 2018). For MHWCs, 44-50% of clients reported that a single session addressed their concerns (Duvall et al., 2012; Miller & Slive, 2004). Not surprising given the sparse literature, no previous studies have examined correlates of a first or second MHWC visit. As such, correlates of accessing and re-accessing outpatient mental health services are reviewed. The review focused on social content correlates, as these are typically the only variables consistently available in administrative datasets.

4.4.1 Correlates of Accessing Services

Studies examining age, sex, and socio-economic status as correlates have yielded contradictory results (Briggs-Gowan et al., 2000; Farmer et al., 1999; Ford et al., 2008; Gunther et al., 2003; Hintzpeter et al., 2015; Lavigne et al., 1998; Ryan et al., 2015; Sayal, 2006; Sourander et al., 2001; Verhulst & van der Ende, 1997; Zwaanswijk et al., 2003). Specifically, the

significance and direction of these relationships differs across studies. Single-parent households (Briggs-Gowan et al., 2000; Gunther et al., 2003; Ryan et al., 2015; Sayal, 2006) as well as problem severity and persistence (Ford, 2008; Sayal, 2006) appear to predict accessing services. Associations with externalizing and internalizing problems, and impairments are mixed (Ford, 2008; Ford et al., 2008; Sayal, 2006; Zwaanswijk et al., 2003).

4.4.2 Correlates of Re-Accessing Services

Only one previous study has examined re-accessing outpatient services. Conducted in Ontario, it found that younger children and families with unknown parental marital status had an increased risk while single-parent households had a decreased risk of re-accessing services after an episode of care (Sarmiento & Reid, 2020).

4.5 Current Study

The current study had two objectives: (1) explore how families use MHWCs (e.g., mean, mode, median number of visits); and (2) identify correlates of time to a second MHWC visit.

Given the mixed findings in the service use literature and limited research on MHWCs, social content (e.g., child age, child gender, guardianship, neighbourhood poverty, presenting concerns) and illness career (e.g., disposition at discharge) variables were explored, but specific hypotheses for these correlates were not made.

4.6 Methods

The study was conducted in Ontario, Canada and involved secondary data analyses of administrative data from CYMH agencies.

4.6.1 Recruitment and Sampling Strategy

Inclusion and Exclusion Criteria for Agencies

The mental health service network for children and families in Ontario is complex. This is because children and families can receive services from different sectors, including health (e.g., CYMH agencies, family health teams, hospitals, pediatricians, psychiatrists), education, child

welfare, juvenile justice, and private (e.g., psychologists, social workers) sectors. The pathway to access these services varies (e.g., self-referral for CYMH agencies; family physician referral for pediatricians and psychiatrists) as does the funding/cost (e.g., publicly funded CYMH agencies; fee-for-service psychologists and social workers; Reid & Brown, 2008). It is also important to note that there are significant differences in the service mandates even within the same sector and type of mental health provider. For example, CYMH agencies in the health sector can serve the entire community (e.g., population living within a delimited geographic area) or a subset of the community (e.g., subset of a population, like First Nations, living within a given geographic area), and children of all ages (i.e., birth-18 years) or a subset of children (e.g., birth-12 years). An agency can provide services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance) or only for specific concerns (e.g., addictions only). Services may also be offered in a variety of different formats/settings (e.g., phone *and* face-to-face; outpatient *and* residential) or only in one format/setting (e.g., phone only; residential care only).

The current study sought to identify CYMH agencies: serving all children (i.e., birth to 18 years) in the entire community (i.e., population living within a given geographic area), providing services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance), delivering services in a range of formats and settings (e.g., phone *and* face-to-face; outpatient *and* residential), and located in a census division with a small urban center. This size for urban centers (Organisation for Economic Co-operation and Development, 2020) was selected for two main reasons. First, the population is large enough to yield sufficient data. Second, previous work has demonstrated that large urban areas in Ontario, metropolitan Toronto/Greater Toronto Area, in particular, have more CYMH agencies in a given area and higher prevalence of children and youth using services (Duncan et al., 2020). As such, families in these areas may receive services from multiple agencies, which would be difficult to account for. This would bias the results as some families could experience the event of interest (i.e., a second MHWC visit), but they would be censored.

The inclusion criteria for agencies were as follows: (a) serve children birth-18 years, (b) no fees for mental health services, (c) providing face-to-face services (pre COVID-19 pandemic), (d) providing MHWCs before 2020 (i.e., pre COVID-19 pandemic), and (e) located in a census division with a small urban center (population between 50,000 and 200,000).

The exclusion criteria for agencies were as follows: (a) primarily focus on specific disorders (e.g., addictions, developmental disorders, disabilities, bereavement, palliative care, health, criminality/justice system), (b) provides only informal supports (e.g., peer support), (c) provides only non-mental health services (e.g., employment, housing), (d) does not provide outpatient services (i.e., only residential or day treatment), and (e) serving only a specific subset of the community (e.g., LGBTQ, First Nations/indigenous).

Agency Recruitment

CYMH agencies in Ontario that completed a provincial survey (Sarmiento & Reid, 2022) examining the implementation of MHWCs across the province were considered for this study. A total of 11 agencies met the eligibility criteria and were invited to participate via email. All agencies responded to this invitation, and a videoconference was scheduled with those interested in the study. Seven agencies declined to participate; the most common reason for declining was limited capacity (e.g., time, resources). Four agencies agreed to participate. Two of the agencies had data that could not be used. One implemented the MHWCs in 2019 and had a small sample of MHWC clients. The other had separate electronic administrative records for MHWC clients and other agency clients; these records, unfortunately, could not be reliably linked. The remaining two agencies had data that could be used for the study.

Data Abstraction

Electronic administrative data were extracted and de-identified by EMHware personnel. EMHware is a company that produces and manages electronic record systems for many CYMH agencies in Ontario. Agencies varied in when they started using EMHware and whether and how previous data were migrated. Because of this, the window of data availability varied across agencies. Additionally, COVID-19 pandemic resulted in a lockdown announcement in Ontario on March 17, 2020, leading to a halt to all in-person services. As a result, only data prior to March 17, 2020 were analyzed.

Participating Agencies

Agency 1 is located in southwestern Ontario. They implemented their MHWCs in 2013 and electronic data were available since 2008. The MHWCs in Agency 1 are offered from different

locations (e.g., agency, community center, physician office) by child and youth workers, social workers, and registered psychotherapists. Different approaches are used, including narrative therapy, solution-focused therapy, supportive therapy, and other (e.g., emotion focused therapy, dialectical behavior therapy skills, motivational interviewing). In this agency, MHWCs were either unscheduled (estimated 85-90%) or scheduled (estimated 10-15%) single session appointments (before COVID-19; personal communication, Agency 1, 2021) and served as a point of intake for agency services (i.e., gathering information, such as presenting problem, to decide what services are offered). Of note, families can complete this intake in other ways (e.g., phone calls). The study window for Agency 1 was 6 years and 9 months from June 2013 to March 2020.

Agency 2 is located in southeastern Ontario. They implemented MHWCs in 2006 and electronic data were available since 2016. The MHWCs in Agency 2 are offered at their agency by social workers and registered psychotherapists. Different approaches are used, including narrative therapy, solution-focused therapy, and choice and partnership approach (personal communication, Agency 2, 2021). In this agency, MHWCs were either unscheduled (estimated 85-90%) or scheduled (estimated 10-15%) single session appointments (before COVID-19) and did not serve as a point of intake for agency services. The study window was 3 years and 8 months from June 2016 to March 2020.

Inclusion and Exclusion Criteria for Agency Clients

The inclusion criteria for children and families were as follows: (a) had a MHWC visit; (b) children under the age of 16 at the start of the study window, ensuring that they were able to access agency services; and (c) children under the age of 16 at their first MHWC visit, allowing families the opportunity to re-access MHWCs even if they first accessed the service in the second half of the study window.

The exclusion criteria for children and families were as follows: (a) children who had visits in the 180 days prior to the study window; thus, all cases included would be starting a new episode of care (Reid et al., 2015); (b) cases with telephone contact only (i.e., no face-to-face or videoconference contacts); and (c) cases where a parent of a child over 12 years old accessed services *without* their child present. This is because children over 12 years old must consent to

have a file opened for them, otherwise no identifiable information is recorded in the database. Figure 4.1 presents the sample selection.

The study received ethics approval by The University of Western Ontario Research Ethics Board (#115545).

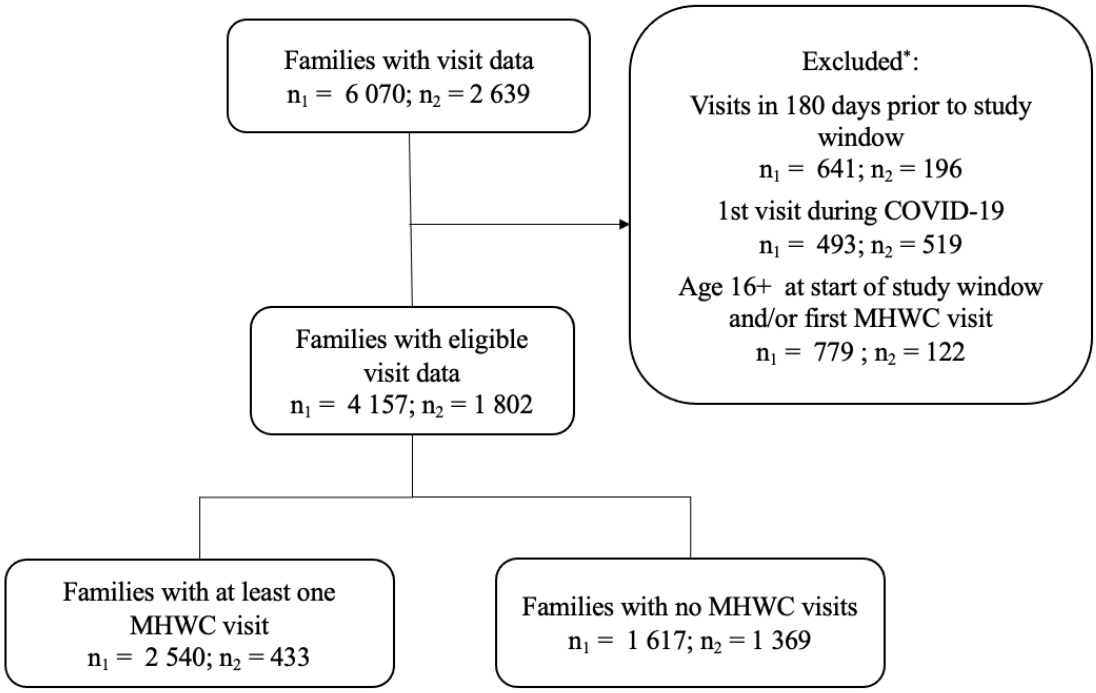

Figure 4.1. Flow chart showing children/family selection for Agency 1 (n_1) and Agency 2 (n_2).
* Criteria applied sequentially in the order shown.
MHWC = mental health walk-in clinic.

4.6.2 Electronic Administrative Data

Each contact that agency personnel had with a child, family, school, or other professional for the purposes of delivering and coordinating services is recorded in the electronic records. This information is entered by agency staff (e.g., clinicians, intake workers) shortly after each contact. The information entered for the first MHWC visit was utilized as correlates. Only non-identifying information were abstracted from the electronic administrative database. Variables abstracted and analyzed are presented below.

Correlates

Child age. The age (years) at the time of the first MHWC visit was calculated for each child. It was re-coded as a categorical correlate with 2 categories: <12 years old, and 12+ years old. Children 12+ years old was the reference category.

Child gender. The agencies entered child gender using 3 categories: female, male, and other. The "other" gender category had small cell sizes. As such, it was included in descriptive statistics, but these cases were dropped ($n_{Agency\ 1} = 19$; $n_{Agency\ 2} = 2$) in the Cox regressions. Female was the reference category.

Neighborhood poverty. As family income was not available, neighborhood data derived from matching the family's postal code to census data were utilized. The following steps were taken: 1) the prevalence of low-income households (using the Low-Income Measure) was obtained for each forward sortation area (FSA; i.e., first 3 digits of the postal code) from the 2016 Census (Statistics Canada, 2017); 2) each FSA was categorized into 2-quantiles: high poverty (i.e., LIM 12.7 to 47.7; mean = 19.59; SD = 6.11) or low poverty (i.e., LIM 3.1 to 12.6; mean = 8.66; SD = 2.52); and 3) the neighborhood poverty 2-quantile was assigned to each case based on the family's postal code.

Guardianship. The agencies entered guardianship using 7 categories: birth/adoptive father, birth/adoptive mother, birth/adoptive parents, shared custody, grandparents, Children's Aid Society (i.e., child welfare), and other. Due to small cell sizes, it was re-coded into 4 categories: birth/adoptive parents, shared custody, birth/adoptive father or mother, and other. Birth/adoptive parents was the reference category.

Presenting concern. The agencies entered presenting concerns from a list of over 50 options with only minor differences between agencies; coding of multiple concerns was possible. Presenting concern for the first MHWC visit was re-coded into 4 categories (see Appendix B, Table B1 for more information): (1) externalizing concerns, (2) internalizing concerns, (3) parenting and family concerns, and (4) other concerns (e.g., school problems, sleep difficulties). As multiple problems were often coded, four variables were computed and coded as: not a concern or was a concern.

Additionally, the total number of presenting concern categories (out of 4) was computed for each visit and used as a proxy for complexity and comorbidity. Due to small cell sizes, it was re-coded as a categorical correlate with 3 categories: 1 presenting concern category, 2 presenting concern categories, and 3+ presenting concern categories. 3+ presenting concern categories was the reference category.

Disposition at discharge. The agencies entered disposition at discharge after the first MHWC visit using 6 categories. It was re-coded as a categorical correlate with 2 broad categories: (1) no referral within the agency: no referral was made to services within the agency *or* referral was made to services outside of the agency (rare; 0.04% of sample); and (2) referral within the agency: anticipate seeing the family again at the agency (see Appendix B, Table B2 for more information). Of note, this variable could only be explored with Agency 1.

Outcome

The outcome was time to re-access MHWC services. This was operationally defined as time in days between the first MHWC visit and the second MHWC visit.

4.6.3 Data Analyses

Analyses were conducted in SPSS (Version 27) for Windows. All analyses were conducted separately for each agency, given differences in how MHWCs were used, when they were implemented, and number of years of data provided.

Survival Analysis

Continuous survival analyses, Cox regressions, were used to identify factors that influence time to a second MHWC visit. Unadjusted and adjusted hazards ratios (HRs) were calculated to determine the effect that each correlate had on the outcome independently and adjusting for other variables. HRs can be interpreted as the change in risk of a second MHWC visit for every one-unit increase (e.g., one year increase in age) or compared to another category (e.g., males compared to females).

Correlates were entered in blocks based on the Revised Network-Episode Model categories (Costello et al., 1998). The overall model was interpreted first, follow by the individual correlates. Cox regressions were used as it accounts for censoring (i.e., some participants do not experience the event of interest; Flynn, 2012).

Assumptions

The key assumptions for a Cox regression are proportional hazards and non-informative censoring (Flynn, 2012). Proportional hazards specify that the HR for each correlate is constant over time. Time-dependent covariates (i.e., interaction of each correlate with time) were examined to evaluate the proportional hazard assumption.

Non-informative censoring stipulates that there should not be a correlation between time-to-event and time of censoring. In the current study, this might have occurred if families sought other MHWC services (e.g., private provider). This is acknowledged as a potential source of bias in estimates (Flynn, 2012; Kleinbaum & Klein, 2011).

Missing Data

Multiple imputation (40 imputations) was used to handle missing data for the correlates used in the Cox regressions. Multiple imputation was conducted separately for each agency. Overall, 69.0% and 68.0% of families in Agency 1 and Agency 2, respectively, had no missing data across correlates (see Appendix B, Table B3 for more information).

4.7 Results

Table 4.1 presents the descriptive statistics for all families with a MHWC visit prior to multiple imputation. Between 36.8% and 39.0% of the sample was age 12 and over, and between 42.3% and 50.0% were females. There were statistically significant differences between the two agencies in all variables, except for child's age.

Table 4.1. Descriptive statistics of child, family, and service use for all families with a MHWC visit.

	Agency 1 (N=2540)	Agency 2 (N=433)
	n (%)	n (%)
Child		
Child age		
<12 years old	1606 (63.2%)	264 (61.0%)
12+ years old	934 (36.8%)	169 (39.0%)
Child gender		
Female	1271 (50.0%)*	183 (42.3%)*
Male	1248 (49.1%)	223 (51.5%)
Other	19 (0.7%)	2 (0.5%)
Missing	2 (0.1%)*	25 (5.8%)*
Family		
Guardianship of child		
Birth/adoptive parents	812 (32.0%)	150 (36.7%)
Birth/adoptive mother	591 (23.3%)	113 (26.1%)
Birth/adoptive father	101 (4.0%)	20 (4.6%)
Shared custody	425 (16.7%)*	45 (10.4%)*
Grandparents	85 (3.3%)	20 (4.6%)
CAS	30 (1.2%)	6 (1.4%)
Other	25 (1.0%)	6 (1.4%)
Missing	471 (18.5%)	64 (14.8%)
Neighborhood poverty		
Low poverty	1789 (70.4%)*	259 (59.8%)*
High poverty	733 (28.9%)*	161 (37.2%)*
Missing	18 (0.7%)*	13 (3.0%)*
Service use		
Presenting concern[1]		
Externalizing	806 (31.7%)	171 (39.5%)
Internalizing	1292 (50.9%)*	236 (54.5%)*
Parenting and family	639 (25.2%)*	57 (13.2%)*
Other	500 (19.7%)*	236 (54.5%)*
Missing	717 (28.2%)*	51 (11.8%)*
Number of presenting concerns		
1	786 (30.9%)	161 (37.2%)

2	725 (28.5%)	136 (31.4%)
3	247 (9.7%)*	73 (16.9%)*
4	65 (2.6%)	12 (2.8%)
Missing	717 (28.2%)*	51 (11.8%)*
Disposition at discharge		
No referral within the agency	1517 (59.7%)	N/A
Referral within the agency	961 (37.8%)	N/A
Missing	62 (2.4%)	N/A

Note. Descriptive statistics between the two agencies were compared using chi-square tests, and *z* pairwise tests (if chi-square tests was significant to determine which proportion was different).
* $p < .05$
[1] Clinicians could code multiple presenting concerns for a visit.

4.7.1 Use of MHWCs

For Agency 1, 61.1% of families with eligible visit data had at least one MHWC visit. The number of MHWC visits a family had ranged from 1 to 10 with a mean of 1.50 (SD = 0.91), median of 1, and mode of 1; and 32.3% of these families had two or more visits. For Agency 2, 24.0% of families with eligible visit data had a MHWC visit. The number of MHWC visits a family had ranged from 1 to 8 with a mean of 1.70 (SD = 1.27), median of 1, and mode of 1; and 36.3%% of these families had two or more MHWC visits. The difference in the number of MHWC visits was statistically significant across the agencies ($U = 579089$, $p < .05$), however, both for agencies the median and mode were the same (see Appendix B, Table B4).

For Agency 1, time to a second MHWC visit ranged from 1 to 2,198 days with a mean of 412.77 days ($SD = 432.39$) and median of 259 days. For Agency 2, time to a second MHWC visit ranged from 1 to 917 days with a mean of 111.72 days ($SD = 188.86$), and median of 21 days. The difference in mean time to a second MHWC visit was statistically different ($U = 31078$, $p < .01$) across the agencies. Figure 4.2 shows the survival probability by time (days).

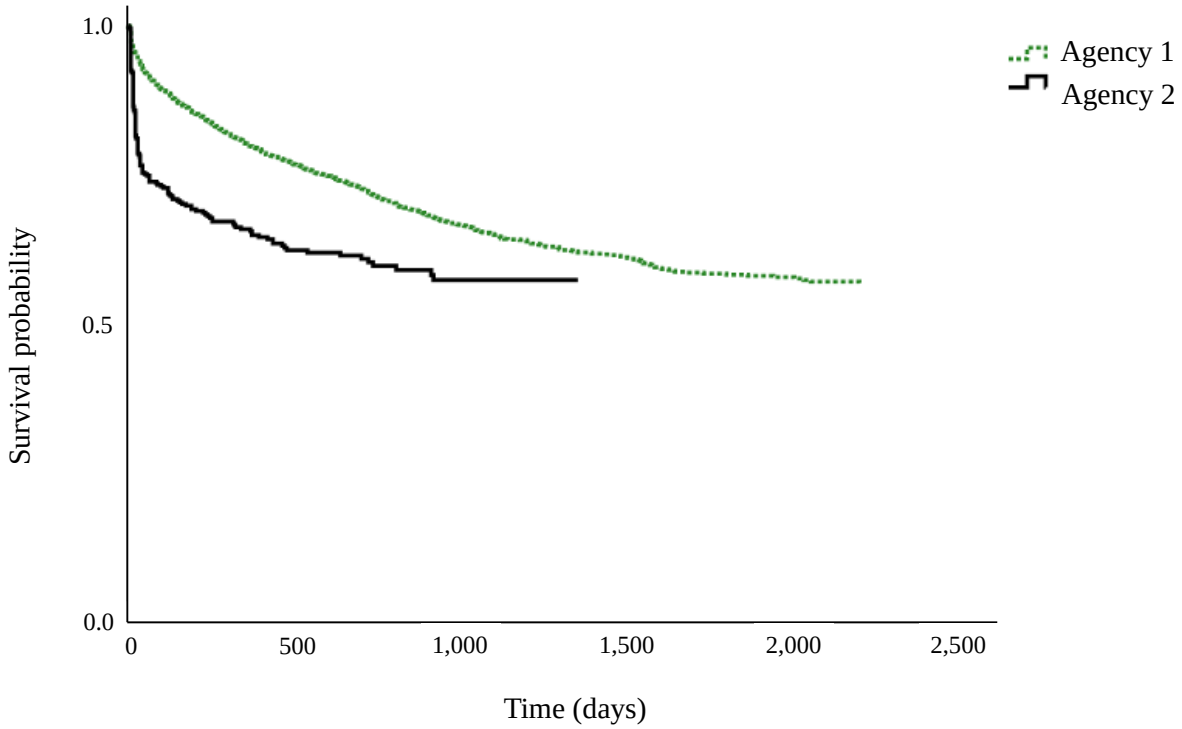

Figure 4.2. Survival probability by time. Survival, in the y axis, means not having a second MHWC visit. Time, in the axis, is measured in days.

4.7.2 Variables Correlated with Time to a Second MHWC Visit

For Agency 1, the full Cox regression model predicting time to a second visit provided an adequate fit based on the omnibus test ($p < .05$). The social content block and illness career block each independently provided an adequate fit. In the multivariate model, children <12 years old had 18% higher risk of a second MHWC visit, compared to children 12+ years old; children in shared custody had 33% higher risk of a second MHWC visit and children under the guardianship of birth/adoptive mother or father had 31% higher risk of a second MHWC visit, compared to children under the guardianship of birth/adoptive parents; and children with a disposition at discharge coded as "no referral within the agency" had 50% higher risk of a second MHWC visit, compared to those with a disposition at discharge coded as "referral within the agency" (see Table 4.2).

This model was re-run without disposition at discharge to be better able to compare the findings to Agency 2 (see Appendix B, Table B5). The were no substantial differences in the results.

For Agency 2, the full Cox regression model predicting time to a second visit did not provide an adequate fit based on the omnibus test ($p > .05$). Of note, only the social content block could be tested due to data availability. No adjusted or unadjusted correlates were significant.

Descriptive statistics for the subsample used in the regressions following multiple imputation procedures are presented in Appendix B; Table B6).

Table 4.2. Unadjusted and adjusted hazards ratios for time to a second visit.

	Agency 1		Agency 2	
	Unadjusted	Adjusted	Unadjusted	Adjusted
	HR (95% CI)	HR (95% CI)	HR (95% CI)	HR (95% CI)
Social content				
Child age [a]				
<12 years old	1.18 (1.02-1.37)*	1.18 (1.01-1.37)*	1.20 (0.86-1.67)	1.21 (0.85-1.72)
Child gender [b]				
Male	1.04 (0.90-1.19)	1.01 (0.86-1.17)	0.79 (0.57-1.11)	0.75 (0.52-1.07)
Neighbourhood poverty [c]				
High poverty	1.17 (1.01-1.36)*	1.13 (0.97-1.33)	0.84 (0.60-1.18)	0.81 (0.57-1.14)
Guardianship of child [d]				
Shared custody	1.32 (1.07-1.63)*	1.33 (1.04-1.69)*	1.20 (0.71-2.03)	1.23 (0.72-2.10)
Birth/adoptive mother or father	1.29 (1.07-1.55)**	1.31 (1.07-1.60)*	0.85 (0.58-1.25)	0.83 (0.55-1.24)
Other	1.22 (0.90-1.65)	1.23 (0.88-1.72)	1.01 (0.55-1.86)	1.02 (0.54-1.91)
Presenting concern				
Externalizing [e]	0.98 (0.82-1.18)	1.02 (0.75-1.37)	0.94 (0.67-1.32)	1.04 (0.52-2.08)
Internalizing [e]	0.99 (0.84-1.19)	1.09 (0.82-1.45)	0.99 (0.71-1.41)	1.05 (0.54-2.05)
Parenting and family [e]	1.01 (0.84-1.21)	0.95 (0.70-1.29)	0.96 (0.59-1.56)	1.04 (0.51-2.12)

	Other [e]	0.97 (0.80-1.18)	0.97 (0.71-1.33)	1.03 (0.73-1.46)	1.02 (0.52-1.99)
Number of presenting concerns [f]					
	1	1.04 (0.80-1.35)	1.10 (0.64-1.88)	1.13 (0.71-1.79)	1.22 (0.34-4.34)
	2	1.04 (0.81-1.34)	1.05 (0.73-1.52)	1.28 (0.79-2.07)	1.39 (0.64-3.05)
Illness career					
Disposition at discharge [g]					
	No referral within the agency	1.41 (1.20-1.65)**	1.50 (1.26-1.78)**	N/A	N/A

* $p < .05$ ** $p < .01$
[a] Reference category is children 12+
[b] Reference category is females.
[c] Reference category is low poverty.
[d] Reference category is birth/adoptive parents.
[e] Reference category is no presenting problem in that category.
[f] Reference category 3+ presenting concern categories.
[g] Reference category is referral within the agency.

4.7.2 Supplementary Analyses

Age, guardianship, and disposition at discharge were significant correlates of time to a second visit. It is possible that there are differences with respect to presenting concerns within these subgroups (e.g., younger children have more externalizing problems, whereas older children have more internalizing problems). As such, these differences were explored. Analyses were only conducted with data from Agency 1, as there were no significant correlates for Agency 2.

Children <12 years old had more externalizing problems whereas children 12+ years old had significantly more internalizing problems. Children in shared custody had more parenting and family problems than children under the guardianship of birth/adoptive parents. Children under the guardianship of a birth/adoptive father or mother had less internalizing problems, and more parenting and family problems than children under the guardianship of birth/adoptive parents. Lastly, children with a disposition at discharge coded as “referral within the agency” had more

internalizing problems, whereas children with a disposition at discharge coded as "no referral within the agency" had more parenting and family problems (see Tables 4.3a,b,c).

Table 4.3a. Relationship between presenting concerns and child age for Agency 1.

	Child Age	
	<12 years old	12+ years old
Externalizing	52.1%	36.0%*
Internalizing	59.3%	70.1%*
Parenting and family	40.7%	37.1%
Other	30.2%	34.5%

* $p < .01$.

Note. The table summarizes the percentages of families with a presenting concern category within an age group. Column percentages are reported; as families could have had more than one presenting concern, percentages do not sum to 100. For example, 52.1% of children <12 years old presented with externalizing problems, whereas 36.0% of children 12+ year old presented with externalizing problems. The difference in externalizing problems between <12 year old and 12+ year old groups (i.e., 52.1% vs. 36.0%) is statistically significant, which is denoted by the asterisk.

Table 4.3b. Relationship between presenting concerns and guardianship for Agency 1.

	Guardianship		
	Birth/adoptive parents	Shared custody	Birth/adoptive father/mother
Externalizing	45.0%	42.2%	48.4%
Internalizing	66.6%	62.5%	60.4%*
Parenting and family	26.2%	53.1%*	44.2%*
Other	32.3%	28.7%	32.9%

* $p < .01$.

Note. The table summarizes the percentages of families with a presenting concern category within a guardianship group. Column percentages are reported; as families could have had more than one presenting concern, percentages do not sum to 100. Comparisons are made to children under the guardianship of both parents because this was the reference category. For example, 66.6% percent of children under the guardianship of both parents presented with internalizing problems, 62.5% of children in shared custody presented with internalizing problems, and 60.4% of children under the guardianship of father/mother presented with internalizing problems. The difference in internalizing problems between children under the guardianship of both parents is statistically significant compared to children under the guardianship of father/mother (i.e., 66.6% vs. 60.4%) which is denoted by the asterisk, but not compared to children in shared custody (i.e., 66.6% vs. 62.5%).

Table 4.3c. Relationship between presenting concerns and disposition at discharge for Agency 1.

	Disposition at discharge	
	No referral within the agency	Referral within the agency
Externalizing	44.4%	49.2%
Internalizing	57.5%	72.6%*
Parenting and family	42.2%	34.8%*
Other	33.3%	29.1%

* $p < .01$.

Note. The table summarizes the percentages of families with a presenting concern category within a disposition at discharge group. Column percentages are reported; as families could have had more than one presenting concern, percentages do not sum to 100. For example, 57.5% of children with "no referral within the agency" presented with internalizing problems, whereas 72.6% of children with "referral within the agency" presented with internalizing problems. The difference in internalizing problems between "no referral within the agency" and "referral within the agency" groups (i.e., 57.5% vs. 72.6%) is statistically significant which is denoted by the asterisk.

4.8 Discussion

The current study examined MHWC use in two CYMH agencies. The percentage of agency clients using the MHWCs was different across the agencies: 61.1% in Agency 1 versus 24.0% in Agency 2. This difference may stem from the way in which the MHWCs were implemented. Specifically, Agency 1 uses it as a point of intake, while Agency 2 does not.

In terms of the number of MHWC visits, the median and mode were 1 for both agencies and about a third of families had 2 or more visits (32.3% Agency 1, 36.3% Agency 2). This is generally in agreement with previous findings of single session services where 44%-50% of clients find a single session addressed their concerns (Bhanot-Malhotra et al., 2010; Horton et al., 2012; Hymmen et al., 2013; Miller & Slive, 2004; Slive et al., 2008; J. Young, 2018).

In terms of time to re-access MHWCs, the range, mean, and median time to re-access was longer in Agency 1 compared to Agency 2. This may be, partly, because Agency 1 uses it as a point of intake and so families may be going on to other agency services.

Correlates for time to a second MHWC visit were few and only statistically significant for Agency 1. Of note, these differences remained even when the model for Agency 1 was run without disposition a discharge (see Appendix B, Table B5). Younger children, children in shared custody or under the guardianship of their birth/adoptive mother or father, and children that were not

referred to other agency services had higher risk of a second MHWC visit. Supplementary analyses showed that these children generally had more parenting and family problems. It is possible that parenting and family problems are causing significant impairment and/or burden and, thereby, need more supports. Unfortunately, information about severity, impairment, and burden was not available to test this hypothesis.

4.8.2 Implications and Limitations

Of families using MHWCs, the majority have only one session while about a third have two or more sessions. This service delivery model can save families time, and agencies both time and money by eliminating the need to complete a comprehensive intake for cases that would go on to have a single visit within this service. Moreover, MHWCs can be tailored by agencies to meet their mandate and needs of their community. For example, agencies can use it as a point of intake for other services and as a point of referral for other agency services.

There were some limitations that are important to note. First, there was a substantial list of inclusion and exclusion criteria. As such, the results are only generalizable to agencies similar to those that were recruited. One of the criteria required that agencies be located in a census division with a small urban center. Use of MHWCs may be different in agencies located in other census divisions. It is possible that, in larger urban centers, families have a MHWC visit at one agency and then other visits at another agency. Thus, time to a second visit at the first agency would be different, due to seeking help elsewhere. Of note, in the present study only 0.04% of families were referred to another service in the community. Another of the criteria required that agencies serve most mental health problems. Use of MHWCs may vary in agencies that specialize in some presenting concerns, like addictions. It is difficult to say, however, exactly how this and other criteria (e.g., age) would have impact the results.

Second, the agencies recorded the presenting concerns using a list of options. This approach is efficient, economical, and convenient for clinical use. However, using a validated measure with subscales would provide valuable information about the severity/impairment of problems, and how it compares to other children that age. This could be done by using measures that are publicly available to reduce the financial burden for agencies (e.g., Strengths and Difficulties Questionnaire; Vostanis, 2006).

Third, children over 12 years old must consent to have a file opened for them. This means that files are not opened (i.e., no information is recorded) when a parent of a child over 12 years old accesses a MHWC *without* their child present. As such, these families could not be included or accounted for. Fourth it is difficult to determine why there were differences in time to a second visit and correlates of this outcome given that there are number of factors by which the agencies differ. Some of these factors (e.g., scheduled vs. unscheduled, intake vs. single session) could not be explored because the agencies do not routinely enter this data into the system. Fifth, the sample size in Agency 2 was significantly smaller, which may have limited the power to detect significant relationships and influenced the overall model fit. Lastly, data on other agencies or health/mental health services was not available. It possible that children accessed MHWCs from another agency, family physician, or other health care provider, which were not captured in the current study.

4.9 References

Barwick, M., Urajnik, D., Sumner, L., Cohen, S., Reid, G., Engel, K., & Moore, J. E. (2013). Profiles and service utilization for children accessing a mental health walk-in clinic versus usual care. *Journal of Evidence-Based Social Work, 10*(4), 338–352.

Bhanot-Malhotra, S., Livingstone, S., & Stalker, C. (2010). *An inventory of walk-in counselling clinics in Ontario*. http://www.briefnarrative.com/field-notes/walk-in-inventory.pdf

Bloom, K., & Tam, J. A. (2015). Walk-in services for child and family mental health. *Journal of Systemic Therapies*, *34*(1), 61–77.

Briggs-Gowan, M. J., Horwitz, S. M., Schwab-Stone, M. E., Leventhal, J. M., & Leaf, P. J. (2000). Mental health in pediatric settings: distribution of disorders and factors related to service use. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*(7), 841–849.

Children's Mental Health Ontario. (2020). *Kids can't wait: 2020 report on wait lists and wait time for child and youth mental health care in Ontario*. https://cmho.org/wp-content/uploads/CMHO-Report-WaitTimes-2020.pdf

Costello, E., Pescosolido, B., Angold, A., & Burns, B. (1998). A family network based model of access to child mental health services. *Research in Community and Mental Health*, *9*, 165–190.

Duncan, L., Georgiades, K., Reid, G. J., Comeau, J., Birch, S., Wang, L., & Boyle, M. H. (2020). Area-level variation in children's unmet need for community-based mental health services: Findings from the 2014 Ontario Child Health Study. *Administration and Policy in Mental Health and Mental Health Services Research, 47*(5), 665–679.

Duvall, J., Young, K., & Kays-Burden, A. (2012). *No more, no less: Brief mental health services for children and youth*. http://www.excellenceforchildandyouth.ca/sites/default/files/resource/policy_brief_mental_health_services.pdf

Farmer, E. M. Z., Stangl, D. K., Burns, B. J., & Costello, E. J. (1999). Use, persistence, and

intensity: Patterns of care for children's mental health across one year. *Community Mental Health Journal*, *35*(1), 31–46.

Flynn, R. (2012). Survival analysis. *Journal of Clinical Nursing*, *21*(19–20), 2789–2797.

Ford, T. (2008). Practitioner Review: How can epidemiology help us plan and deliver effective child and adolescent mental health services? *Journal of Child Psychology and Psychiatry*, *49*(9), 900–914.

Ford, T., Hamilton, H., Meltzer, H., & Goodman, R. (2008). Predictors of service use for mental health problems among British school children. *Child and Adolescent Mental Health*, *13*(1), 32–40.

Georgiades, K., Duncan, L., Wang, L., Comeau, J., & Boyle, M. H. (2019). Six-month prevalence of mental disorders and service contacts among children and youth in Ontario: Evidence from the 2014 Ontario child health study. *Canadian Journal of Psychiatry*, *64*(4), 246–255.

Gunther, N., Slavenburg, B., Feron, F., & Van Os, J. (2003). Childhood social and early developmental factors associated with mental health service use. *Social Psychiatry and Psychiatric Epidemiology*, *38*(3), 101–108.

Harper-Jaques, S., McElheran, N., Slive, A., & Leahey, M. (2008). A comparison of two approaches to the delivery of walk-in single session mental health therapy. *Journal of Systemic Therapies*, *27*(4), 40–53.

Hintzpeter, B., Klasen, F., Schon, G., Voss, C., Holling, H., & Ravens-Sieberer, U. (2015). Mental health care use among children and adolescents in Germany: Results of the longitudinal BELLA study. *European Child & Adolescent Psychiatry*, *24*(6), 705–713.

Horton, S., Stalker, C., Cait, C.-A., & Josling, L. (2012). Sustaining walk-in counselling services. *Healthcare Quarterly*, *15*(3), 44–49.

Hymmen, P., Stalker, C. A., & Cait, C. A. (2013). The case for single-session therapy: Does the empirical evidence support the increased prevalence of this service delivery model? *Journal of Mental Health*, *22*(1), 60–71.

Kleinbaum, D. G. D., & Klein, M. (2011). Survival analysis: A self-learning text. In *Biometrical Journal* (3d ed). Springer.

Lavigne, J. V., Arend, R., Rosenbaum, D., Binns, H. J., Christoffel, K. K., Burns, A., & Smith, A. (1998). Mental health service use among young children receiving pediatric primary care. *Journal of the American Academy of Child & Adolescent Psychiatry*, *37*(11), 1175–1183.

Miller, J. K., & Slive, A. (2004). Breaking down the barriers to clinical service delivery: Walk-in family therapy. *Journal of Marital and Family Therapy*, *30*(1), 95–103.

Organisation for Economic Co-operation and Development. (2020). *Urban population by city size*.

Perkins, R. (2006). The effectiveness of one session of therapy using a single-session therapy approach for children and adolescents with mental health problems. *Psychology and Psychotherapy: Theory, Research and Practice*, *79*(2), 215–227.

Reid, G. J., & Brown, J. B. (2008). Money, case complexity, and wait lists: Perspectives on problems and solutions at children's mental health centers in Ontario. *Journal of Behavioral Health Services and Research*, *35*(3), 334–346.

Reid, G. J. ., Stewart, S. L., Zaric, G. S., Carter, J. R., Neufeld, R. W., Tobon, J. I., Barwick, M., & Vingilis, E. R. (2015). Defining episodes of care in children's mental health using administrative data. *Administration and Policy in Mental Health*, *42*(6), 737–747.

Ryan, S. M., Jorm, A. F., Toumbourou, J. W., & Lubman, D. I. (2015). Parent and family factors associated with service use by young people with mental health problems: A systematic review. *Early Intervention in Psychiatry*, *9*(6), 433–446.

Sarmiento, C., & Reid, G. J. (2020). Re-accessing community mental health services for children and adolescents. *Journal of Behavioral Health Services & Research*, *47*(1), 21–37.

Sarmiento, C., & Reid, G. J. (2022). Mental health walk-in clinics for children and families: A provincial survey. *Advances in Mental Health*, 1–12.

Sayal, K. (2006). Annotation: Pathways to care for children with mental health problems. *Journal*

of Child Psychology and Psychiatry, *47*(7), 649–659.

Schleider, J. L., & Weisz, J. R. (2017). Little treatments, promising effects? Meta-analysis of single-session interventions for youth psychiatric problems. *Journal of the American Academy of Child and Adolescent Psychiatry*, *65*(2), 107–115.

Slive, A., & Bobele, M. (2012). Walk-in counselling services: Making the most of one hour. *Australian and New Zealand Journal of Family Therapy*, *33*(1), 27–38.

Slive, A., McElheran, N., & Lawson, A. (2008). How brief does it get? Walk-in single session therapy. *Journal of Systemic Therapies*, *27*(4), 5–22.

Sourander, A., Helstelä, L., Ristkari, T., Ikäheimo, K., Helenius, H., & Piha, J. (2001). Child and adolescent mental health service use in Finland. *Social Psychiatry and Psychiatric Epidemiology*, *36*(6), 294–298.

Stalker, C. A., Horton, S., & Cait, C.-A. (2012). Single session therapy in a walk-in counselling clinic: A pilot study. *Journal of Systemic Therapies*, *31*(1), 38–52.

Statistics Canada. (2017). *Dictionary, Census of Population, 2016: Low-income measure, after tax (LIM-AT)*. https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/fam021-eng.cfm

Verhulst, F. C., & van der Ende, J. (1997). Factors associated with child mental health service use in the community. *Journal of the American Academy of Child & Adolescent Psychiatry*, *36*(7), 901–909.

Vostanis, P. (2006). Strengths and Difficulties Questionnaire: Research and clinical applications. *Current Opinion in Psychiatry*, *19*(4), 367–372.

Waddell, C., Georgiades, K., Duncan, L., Comeau, J., Reid, G. J., O'Briain, W., Lampard, R., & Boyle, M. H. (2019). 2014 Ontario child health study findings: Policy implications for Canada. *Canadian Journal of Psychiatry*, *64*(4), 227–231.

Young, J. (2018). Single-session therapy: The misunderstood gift that keeps on giving. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in*

or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services (pp. 40–58). Routledge.

Zwaanswijk, M., Verhaak, P. F. M., Bensing, J. M., van der Ende, J., & Verhulst, F. C. (2003). Help seeking for emotional and behavioural problems in children and adolescents. *European Child & Adolescent Psychiatry*, *12*(4), 153–161.

Chapter 5

5 Accessing Mental Health Walk-In Clinics and Other Services for Children and Families

5.1 Abstract

Mental health walk-in clinics (MHWC) are a model of service delivery that has gained increasing interest and traction. The aim of the study was to better understand how MHWC use is related to use of other services provided by agencies. Specifically, there were two objectives: (1) explore if and how MHWCs are used alongside other services, including the different time points (e.g., MHWCs used exclusively, MHWCs before other agency services, etc.); (2) identify correlates of MHWC use alongside other agency services. Administrative data from two child and youth mental health agencies in Ontario were extracted, including demographics, visit data, and presenting concerns. Over half of families used MHWCs and other agency services; most had their first MHWC visit before or concurrently with other agency services. Child age, guardianship, and disposition at discharge emerged as correlates of MHWC use before other agency services. MHWCs are sufficient for some families, easing the pressure on other agency services. For the remaining families, MHWCs can help support them at the beginning of their service use journey.

5.2 Introduction

Access to mental health services remains difficult for children and families with the rising demand for services (Comeau et al., 2019) and lengthy waitlists (Children's Mental Health Ontario, 2020). Single session therapy (SST) is a promising service delivery model to help address this issue. It treats each session as it if will be the only session with the client (Perkins, 2006). There are two ways in which it has been used: scheduled and unscheduled (i.e., mental health walk-in clinics; MHWCs).

MHWCs do not require phone calls to schedule appointments, attending comprehensive intakes, or waiting days to weeks to start services (Bloom & Tam, 2015; Slive & Bobele, 2012). A recent provincial survey examined the implementation of MHWCs in child and youth mental health (CYMH) agencies in Ontario (see Chapter 3). It found that this service delivery model is flexible, using different approaches (e.g., narrative therapy, solution-focused, therapy, and cognitive behavioral therapy) and modalities (e.g., consulting break, outsider witness). Most agencies have social workers or registered psychotherapists provide them from more than one location (e.g., agency, school community center, doctor's office), likely making it easier for families to access.

Scheduled SST has been studied extensively, which has allowed for literature reviews and meta-analyses to be conducted. These have supported its use for internalizing concerns (e.g., anxiety), externalizing concerns (e.g., conduct problems, substance use), and other concerns (e.g., general distress; Perkins, 2006; Schleider & Weisz, 2017). MHWCs have been studied to a lesser extent. Studies to date have found perceived improvement immediately after the session (e.g., less distress, greater confidence, more hopefulness; Bhanot-Malhotra et al., 2010; Harper-Jaques et al., 2008); and improvement at follow-up (e.g., lower psychopathology, lower distress; Barwick et al., 2013; Bhanot-Malhotra et al., 2010; Stalker et al., 2012). Both service delivery models have been found to have high client satisfaction (Bhanot-Malhotra et al., 2010; Hymmen et al., 2013; Miller & Slive, 2004; Slive et al., 2008; Slive & Bobele, 2012).

MHWCs are part of a continuum of services provided by CYMH agencies. The role that this service delivery model plays within the continuum is largely unknown. The current study examines this gap in the literature.

The following sections briefly review the theoretical framework and relevant service use research.

5.3 Theoretical Framework

The Revised Network-Episode Model (Costello et al., 1998) was developed to conceptualize mental health service use by children (0-18 years) and their families. It outlines 4 broad factors, with 76 variables nested within the factors, that influence mental health service use: (1) social content (e.g., child age, child gender, parental income, parental marital status), (2) social support system, (3) illness career (e.g., termination of care, referrals), and (4) treatment system (see Appendix B, Figure B1). This model was used to frame the current study. More specifically, to guide the selection of correlates and how they would be entered into the regression models.

5.4 MHWC Service Use

There is limited research examining how MHWCs relates to other services families may access. Some studies have found that following a MHWC visit, families have less service use at follow-up across mental health, education, juvenile justice, and general medical sectors (Barwick et al., 2013; Stalker et al., 2012). However, this is not a consistent finding. Horton and colleagues (2012), for example, found that clients that attended a MHWC used more community services following their MHWC visit compared to before their MHWC visit. They hypothesized that MHWCs may serve as a source for referrals and system navigation. This is supported by other research that shows that between 8% and 25% of MHWC clients are referred to other services (Miller & Slive, 2004; Stalker et al., 2012).

5.5 Current Study

The aim of the study was to better understand how MHWC use is related to use of other services provided by agencies. Specifically, there were two objectives: (1) explore if and how MHWCs are used alongside other services, including the different time points (e.g., MHWCs used exclusively, MHWCs before other agency services, etc.); (2) identify correlates of MHWC use alongside other agency services. The second objective was clarified and informed by the results of the first objective, which allowed for a better understanding of this phenomenon.

It was hypothesized that of families using MHWCs alongside other agency services, a greater proportion use MHWCs earlier in their service use journey. That is, MHWCs are most often the first service received from an agency and can support families as they are connected to other agency services.

5.6 Methods

The study was conducted in Ontario, Canada and involved secondary data analyses of administrative data from CYMH agencies.

5.6.1 Recruitment and Sampling Strategy

Inclusion and Exclusion Criteria for Agencies

The mental health service network for children and families in Ontario is complex. This is because children and families can receive services from different sectors, including health (e.g., CYMH agencies, family health teams, hospitals, pediatricians, psychiatrists), education, child welfare, juvenile justice, and private (e.g., psychologists, social workers) sectors. The pathway to access these services varies (e.g., self-referral for CYMH agencies; family physician referral for pediatricians and psychiatrists) as does the funding/cost (e.g., publicly funded CYMH agencies; fee-for-service psychologists and social workers; Reid & Brown, 2008). It is also important to note that there are significant differences in the service mandates even within the same sector and type of mental health provider. For example, CYMH agencies in the health sector can serve the entire community (e.g., population living within a delimited geographic area) or a subset of the community (e.g., subset of a population, like First Nations, living within a given geographic area), and children of all ages (i.e., birth-18 years) or a subset of children (e.g., birth-12 years). An agency can provide services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance) or only for specific concerns (e.g., addictions only). Services may also be offered in a variety of different formats/settings (e.g., phone *and* face-to-face; outpatient *and* residential) or only in one format/setting (e.g., phone only; residential care only).

The current study sought to identify CYMH agencies: serving all children (i.e., birth to 18 years) in the entire community (i.e., population living within a given geographic area), providing

services for most mental health concerns (e.g., anxiety, depression, attention, hyperactivity, non-compliance), delivering services in a range of formats and settings (e.g., phone *and* face-to-face; outpatient *and* residential), and located in a census division with a small urban center. This size for urban centers (Organisation for Economic Co-operation and Development, 2020) was selected for two main reasons. First, the population is large enough to yield sufficient data. Second, previous work has demonstrated that large urban areas in Ontario, metropolitan Toronto/Greater Toronto Area, in particular, have more CYMH agencies in a given area and higher prevalence of children and youth using services (Duncan et al., 2020). As such, families in these areas may receive services from multiple agencies, which would be difficult to account for. This would bias the results as some families would experience the event of interest (i.e., MHWC use and other agency use), but they would be misclassified (i.e., MHWC use only).

There were 5 inclusion criteria for the agencies: (1) serve children birth-18 years, (2) no fees for mental health services, (3) providing face-to-face services (pre COVID-19 pandemic), (4) providing MHWCs before 2020 (i.e., pre COVID-19 pandemic), and (5) located in a census division with a small urban center (population between 50,000 and 200,000). This size for urban centers (Organisation for Economic Co-operation and Development, 2020) was selected for two main reasons.

There were 5 exclusion criteria for the agencies: (1) primarily focus on specific disorders (e.g., addictions, developmental disorders, disabilities, bereavement, palliative care, health, criminality/justice system), (2) provides only informal supports (e.g., peer support), (3) provides only non-mental health services (e.g., employment, housing), (4) does not provide outpatient services (i.e., only residential or day treatment), and (5) serving only a specific subset of the community (e.g., LGBTQ, First Nations/indigenous).

Agency Recruitment

A total of 11 agencies – which had completed a provincial survey (Sarmiento & Reid, 2022) – met the eligibility criteria and were invited to participate in the current study via email. All agencies responded to this invitation. Seven agencies declined to participate; the most common reason for declining was limited capacity (e.g., time, resources). Four agencies agreed to participate. Two of the agencies had data that could not be used. One implemented the MHWCs

in 2019 and had a small sample of MHWC clients. The other had separate electronic administrative records for MHWC clients and other agency clients; these records, unfortunately, could not be reliably linked. The remaining two agencies had data that could be used for the study.

Data Abstraction

EMHware is a company that produces and manages electronic record systems for many CYMH agencies in Ontario. EMHware personnel did the extraction and de-identification of the administrative data. Agencies varied in when they started using EMHware services and whether and how previous data were migrated. As such, the window of data availability varied across agencies. Additionally, the COVID-19 pandemic resulted in a lockdown announcement in Ontario on March 17, 2020 and a halt to all in-person services. Because of this, only data prior to March 17, 2020 were analyzed.

Participating Agencies

Agency 1 is located in southwestern Ontario. They implemented their MHWCs in 2013 and electronic data were available since 2008. The MHWCs in Agency 1 are offered from different locations (e.g., agency, community center, physician office) by child and youth workers, social workers, and registered psychotherapists. Different approaches are used, including narrative therapy, solution-focused therapy, supportive therapy, and other (e.g., emotion focused therapy, dialectical behavior therapy skills, motivational interviewing). In this agency, MHWCs were either unscheduled (estimated 85-90%) or scheduled (estimated 10-15%) single session appointments (before COVID-19; personal communication, Agency 1, 2021) and served as a point of intake for agency services (i.e., gathering information, such as presenting problem, to decide what services are offered). Of note, families can complete this intake in other ways (e.g., phone calls). Agency 1 offers a variety of other services along the continuum of care, including workshops, groups, family therapy, individual therapy, and day treatment, among others. The study window for Agency 1 was 6 years and 9 months from June 2013 to March 2020.

Agency 2 is located in southeastern Ontario. They implemented MHWCs in 2006 and electronic data were available since 2016. The MHWCs in Agency 2 are offered at their agency by social workers and registered psychotherapists. Different approaches are used, including

narrative therapy, solution-focused therapy, and choice and partnership approach (personal communication, Agency 2, 2021). In this agency, MHWCs were either unscheduled (estimated 85-90%) or scheduled (estimated 10-15%) single session appointments (before COVID-19) and did not serve as a point of intake for agency services. Agency 2 offers a variety of other services along the continuum of care, including groups, family therapy, individual therapy, and in home intervention. The study window was 3 years and 8 months from June 2016 to March 2020.

Inclusion and Exclusion Criteria for Agency Clients

There were 3 inclusion criteria for children and families: (1) had a MHWC visit; (2) children under the age of 16 at the start of the study window, ensuring that they were able to access agency services; and (3) children under the age of 16 at their first MHWC visit, allowing families the opportunity to access MHWCs and other agency services even if they did so in the second half of the study window.

There were 3 exclusion criteria for children and families: (1) children and families who had visits in the 180 days prior to the study window; thus, all cases included would be starting a new episode of care (Reid et al., 2015); (2) cases with telephone contact only (i.e., no face-to-face or videoconference contacts); and (3) cases where a parent of a child over 12 years old accessed services *without* their child present. This is because children over 12 years old must consent to have a file opened for them, otherwise no identifiable information is recorded in the database. Figure 5.1 presents the sample selection.

The study received ethics approval by The University of Western Ontario Research Ethics Board (#115545).

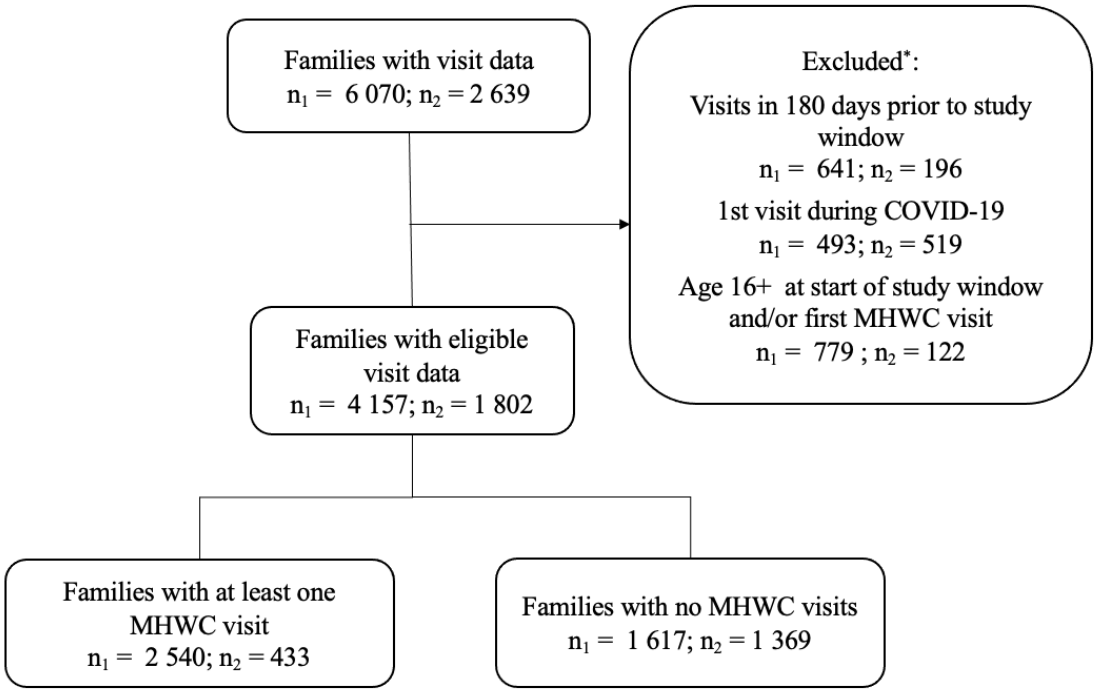

Figure 5.1. Flow chart showing children/family selection for Agency 1 (n_1) and Agency 2 (n_2).
* Criteria applied sequentially in the order shown.
MHWC = mental health walk-in clinic.

5.6.2 Electronic Administrative Data

Electronic records consist of every contact that agency staff had with a family or other professional to deliver and coordinate services. This information is entered by agency staff (e.g., clinicians, intake workers) shortly after each contact. The information entered for the first MHWC visit was utilized as correlates. Only non-identifying information were abstracted from the electronic administrative data, including demographics (e.g., child birthdate, gender), visit data (e.g., visit dates, types of contacts), and psychopathology information (e.g., presenting concerns).

Correlates

Child age. The age, in years, at the time of the first MHWC visit was calculated for each child. Age violated the linearity of the logit assumption (see below) and so was re-coded as a categorical correlate with 2 categories: <12 years old, and 12+ years old. Children 12+ years old was the reference category.

Child gender. The agencies entered child gender using 3 categories: female, male, and other. The "other" gender category had small cell sizes. As such, it was included in descriptive statistics, but these cases were dropped ($n_{Agency\ 1}$ = 19; $n_{Agency\ 2}$ = 2) in the logistic regressions. Female was the reference category.

Neighborhood poverty. Neighborhood-level poverty data were utilized given that family income was not available. This variable was derived as follows: 1) the prevalence of low-income households (using the Low-Income Measure) was obtained for each forward sortation area (FSA; i.e., first 3 digits of the postal code) in Ontario from the 2016 Census (Statistics Canada, 2017); 2) each FSA was categorized into 2-quantiles: high poverty (i.e., LIM 12.7 to 47.7; mean = 19.59; SD = 6.11) or low poverty (i.e., LIM 3.1 to 12.6; mean = 8.66; SD = 2.52); and 3) the neighborhood poverty 2-quantile was assigned to each case based on the family's postal code.

Guardianship. The agencies entered guardianship using 7 categories: birth/adoptive father, birth/adoptive mother, birth/adoptive parents, shared custody, grandparents, Children's Aid Society (i.e., child welfare), and other. Guardianship at the time of the first MHWC visit was re-coded given small cell sizes: birth/adoptive parents, shared custody, birth/adoptive father or mother, and other. Birth/adoptive parents was the reference category.

Presenting concern. The agencies entered presenting concerns from a list of over 50 options with only minor differences between agencies; coding of multiple concerns was possible. Presenting concern for the first MHWC visit was re-coded into 4 categories (see Appendix C Table C1 for more information): (a) externalizing concerns, (b) internalizing concerns, (c) parenting and family concerns, and (d) other concerns (e.g., school problems, sleep difficulties). As multiple presenting concerns were often coded, four variables were computed and coded as: not a concern or was a concern.

The total number of presenting concern categories was also computed for the first MHWC visit and used as a proxy for complexity and comorbidity. Due to small cell sizes, it was re-coded as a categorical correlate with 3 categories: 1 presenting concern category, 2 presenting concern categories, and 3+ presenting concern categories, with 3+ presenting concern categories as the reference category.

Disposition at discharge. The agencies entered disposition at discharge for the first MHWC visit using 6 categories. It was re-coded as a categorical correlate with 2 broad categories: (1) no referral within the agency: no referral was made to services within the agency *or* referral was made to services outside of the agency (rare; 0.04% of sample); and (2) referral within the agency: anticipate seeing the family again at the agency (see Appendix C, Table C2 for information on the original 6 categories). Of note, this variable could only be explored with Agency 1.

Outcome

Modeling service use. Mental health service use can be very complex (Reid et al., 2021). Visits were grouped as follows: (1) Non-MHWC visits were grouped into episodes of care. An episode of care was defined as a minimum of 3 visits with a period of 180 days without visits between episodes (Reid et al., 2015). (2) Children could have visits that did not meet this criterion prior to the first episode of care; these were coded as pre-episode of care visits. (3) Children could also have visits that did not meet this criterion after an episode of care; these are referred to as inter-episode of care visits (i.e., visits between two episodes of care) or (4) post-episode of care visits (i.e., visits after the last episode of care). Figure C2a in Appendix C provides a visual representation of how visit data were categorized into the above four groups.

Next, the timing of MHWC use with respect to other agency services was examined. A third of families had more than one MHWC visit (32.3% Agency 1; 36.3% Agency 2; see Appendix C, Table C3). For these families, only the first MHWC visit was considered. This created five possibilities: (1) MHWC use exclusively, (2) MHWC use before other agency services, (3) MHWC use concurrently with other agency services (i.e., *during* a pre-episode of care, episode of care, inter-episode of care, or post-episode of care), (4) MHWC use during the service use trajectory (i.e., *before or after* a pre-episode of care, episode of care, inter-episode of care, or post-episode of care), and (5) MHWC use after other agency services. Figure C2b in Appendix C presents examples of these groupings.

Coding outcome variable for regression models. The modeling of service use revealed that most families are using MHWCs exclusively or earlier in their service use journey (see Results). It also revealed small cell sizes for one or both agencies for MHWC concurrently with other agency services, MHWC during service use trajectory, and MHWC after other agency

services. As such, models examining factors that differentiated between all five patterns of MHWC use could not be examined. Instead, two of the five possibilities mentioned above were examined: (1) MHWC use exclusively (reference category), and (2) MHWC use before other agency services.

5.6.3 Data Analyses

Statistical analyses were conducted in SPSS (Version 27) for Windows. All analyses were conducted separately for each agency given differences in how MHWCs were used, when they were implemented, and number of years of data provided.

Logistic Regression

Logistic regressions were used to identify correlates of MHWC use before other agency services versus MHWC use exclusively. Unadjusted and adjusted odds rations (ORs) were calculated to determine the effect that each variable had on the outcome independently and adjusting for other variables. ORs can be interpreted as the change in odds of MHWC use before other agency services for every one-unit increase (e.g., one year increase in age) or compared to another category (e.g., males compared to females; Stoltzfus, 2011; Warner, 2013).

Correlates were entered in blocks based on the Revised Network-Episode Model categories. The overall model was interpreted first, follow by the individual correlates. Logistic regression was used as the outcome has two levels and it requires less restrictive assumptions compared to other approaches like discriminant analyses (e.g., homogeneity of variance/covariance; Warner, 2013).

Assumptions

The key assumptions for logistic regression are: linearity of the logit, absence of multicollinearity, and no strongly influencing outliers. First, linearity of the logit specifies that there should be a linear relationship between continuous correlates and their logit-transformed outcomes. The Box-Tidwell test was conducted to examine this assumption. Child age violated this assumption and so the variable was dichotomized. Second, absence of multicollinearity among independent variables was examined by computing correlations between the correlates and no issues emerged. Lastly, strongly influential outliers were not an issue in the current study as all

correlates were categorical.

Missing Data

Multiple imputation (40 imputations) was used to handle missing data for the correlates used in the logistic regressions. Multiple imputation was conducted separately for each agency. Overall, 66.7% and 59.2% of families in Agency 1 and Agency 2, respectively, had no missing data across correlates (see Appendix C, Table C4 for more information).

5.7 Results

Table 5.1 presents the descriptive statistics for all families with at least one MHWC visit prior to multiple imputation. Between 36.8% and 39.0% of the sample was age 12 and over, and between 42.3% and 50.0% were females. There were statistically significant differences between the two agencies in all variables, except for child's age.

Table 5.1. Descriptive statistics of children, family, and service use for all families with a MHWC visit.

	Agency 1 (N=2540)	Agency 2 (N=433)
	n (%)	n (%)
Child		
Child age		
<12 years old	1606 (63.2%)	264 (61.0%)
12+ years old	934 (36.8%)	169 (39.0%)
Child gender		
Female	1271 (50.0%)*	183 (42.3%)*
Male	1248 (49.1%)	223 (51.5%)
Other	19 (0.7%)	2 (0.5%)
Missing	2 (0.1%)*	25 (5.8%)*
Family		
Guardianship of child		
Birth/adoptive parents	812 (32.0%)	150 (36.7%)
Birth/adoptive mother	591 (23.3%)	113 (26.1%)
Birth/adoptive father	101 (4.0%)	20 (4.6%)
Shared custody	425 (16.7%)*	45 (10.4%)*

Grandparents	85 (3.3%)	20 (4.6%)
CAS	30 (1.2%)	6 (1.4%)
Other	25 (1.0%)	6 (1.4%)
Missing	471 (18.5%)	64 (14.8%)
Neighborhood poverty		
Low poverty	1789 (70.4%)*	259 (59.8%)*
High poverty	733 (28.9%)*	161 (37.2%)*
Missing	18 (0.7%)*	13 (3.0%)*
Service use		
Presenting concern[1]		
Externalizing	806 (31.7%)	171 (39.5%)
Internalizing	1292 (50.9%)*	236 (54.5%)*
Parenting and family	639 (25.2%)*	57 (13.2%)*
Other	500 (19.7%)*	236 (54.5%)*
Missing	717 (28.2%)*	51 (11.8%)*
Number of presenting concerns		
1	786 (30.9%)	161 (37.2%)
2	725 (28.5%)	136 (31.4%)
3	247 (9.7%)*	73 (16.9%)*
4	65 (2.6%)	12 (2.8%)
Missing	717 (28.2%)*	51 (11.8%)*
Disposition at discharge		
No referral within the agency	1517 (59.7%)	N/A
Referral within the agency	961 (37.8%)	N/A
Missing	62 (2.4%)	N/A

Note. Descriptive statistics between the two agencies were compared using chi-square tests, and *z* pairwise tests (if chi-square tests was significant to determine which proportion was different).
* $p < .05$
[1] Clinicians can code multiple presenting concerns for a visit.

5.7.1 Use of MHWCs and Other Agency Services

For Agency 1, 33.2% of families used only MHWCs and no other agency services. Of these families, 81.4% had only one MHWC visit and the remaining had two or more MHWC visits (see Appendix C, Table C3). The remainder, 66.8%, of families accessed both MHWCs and other agency services. These families accessed the MHWCs at different time points (see Table 5.1 and Figure C2b). The majority of cases, 56.3%, had their first MHWC visit before other agency

services, 1.6% concurrently with other agency services, 5.7% during their service use trajectory (but not concurrently with other services), and 3.2% after other agency services. As the later three patterns had small cell sizes, these could not be included in the regression model.

For Agency 2, 43.0% of families used only MHWCs and no other agency services. Of these families, 76.9% had only one MHWC visit and the remaining had two or more MHWC visits (see Appendix C, Table C3). The remainder, 57.0%, of families accessed both MHWCs and other agency services. More specifically, 25.4% had their first MHWC visit before other agency services, 20.8% concurrently with other agency services, 4.2% during their service use trajectory (but not concurrently with other services), and 6.7% after other agency services. As the later three patterns had small cell sizes, these could not be included in the regression model.

5.7.2 Variables Correlated with MHWC Use Before Other Agency Services

For Agency 1, the full binary regression model predicting MHWC use before other agency services (versus MHWC use exclusively) provided an adequate fit based on the omnibus test ($p <$ .01). The social content block and illness career block each independently provided an adequate fit. In the multivariate model, children <12 years old had 25% lower odds of MHWC use before other agency services, compared to children 12+ years old. Children whose disposition at discharge was “no referral within the agency” had 95% lower odds of MHWC use before other agency services, compared to children whose disposition at discharge was “referral within the agency” (see Table 2).

This model was re-run without disposition at discharge to be better able to compare the findings to Agency 2 (see Appendix C, Table C5). There were no substantial differences in the results.

For Agency 2, the full binary regression model predicting MHWC use before other agency services (versus MHWC use exclusively) did not provided an adequate fit based on the omnibus test. Of note, only the social content block could be tested due to data availability. In the multivariate model, children whose parents have shared custody had 187% higher odds of MHWC use before other agency services, compared to birth/adoptive parents (see Table 4.2).

Descriptive statistics for the subsample used in the regressions following multiple imputation procedures are presented in Appendix C; Table C6).

Table 5.2. Unadjusted and adjusted odds ratios for correlates of MHWC use before other agency services versus MHWC use only.

	Agency 1		Agency 2	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Social content				
Child age [a]				
< 12 years old	0.70 (0.59-0.84)**	0.75 (0.61-0.93)*	1.27 (0.77-2.08)	1.32 (0.77-2.29)
Child gender [b]				
Male	0.89 (0.75-1.06)	1.03 (0.80-1.32)	0.76 (0.46-1.25)	0.67 (0.38-1.16)
Neighbourhood poverty [c]				
High poverty	1.21 (0.99-1.46)	1.15 (0.87-1.52)	1.22 (0.74-2.02)	1.13 (0.66-1.89)
Guardianship of child [d]				
Shared custody	0.93 (0.71-1.21)	1.02 (0.70-1.48)	2.73 (1.18-6.27)*	2.87 (1.19-6.95)*
Birth/adoptive mother or father	1.13 (0.90-1.43)	1.20 (0.87-1.67)	1.57 (0.88-2.80)	1.56 (0.84-2.91)
Other	1.47 (0.95-2.26)	1.78 (0.98-3.21)	1.40 (0.43-4.60)	1.48 (0.43-5.12)
Presenting concern				
Externalizing [e]	1.25 (0.93-1.68)	1.21 (0.59-2.49)	1.06 (0.64-1.76)	1.06 (0.40-2.85)
Internalizing [e]	1.34 (1.05-1.70)*	1.00 (0.48-2.10)	0.67 (0.41-1.11)	0.65 0.25-1.68)
Parenting and family [e]	0.78 (0.61-0.99)*	0.79 (0.37-1.67)	1.11 (0.59-2.11)	1.04 (0.40-2.70)
Other [e]	1.17 (0.83-1.67)	1.21 (0.59-2.47)	0.83 (0.50-1.38)	0.77 (0.30-2.02)
Number of presenting concerns [f]				

	1	0.74 (0.48-1.15)	0.77 (0.22-2.67)	1.26 (0.65-2.44)	1.02 (0.17-6.05)
	2	0.85 (0.54-1.34)	0.80 (0.36-1.76)	0.80 (0.39-1.63)	0.68 (0.22-2.18)
Disposition at discharge [g]					
No referral within the agency		0.05 (0.04-0.07)**	0.05 (0.03-0.07)**	-	-

* $p < .05$ ** $p < .01$
[a] Reference category is children 12+.
[b] Reference category is females.
[c] Reference category is low poverty.
[d] Reference category is birth/adoptive parents.
[e] Reference category is no presenting problem in that category.
[f] Reference category 3+ presenting concern categories.
[g] Reference category is referral within the agency.

5.7.3 Supplementary analyses

Age, guardianship, and disposition at discharge were significant correlates of time to a second visit. It is possible that there are differences with respect to presenting concerns within these subgroups (e.g., younger children have more externalizing problems, whereas older children have more internalizing problems). As such, these differences were explored.

For Agency 1, children 12+ years old had significantly more internalizing problems, while children <12 years old had more externalizing problems. Moreover, children whose disposition at discharge was "no referral within the agency" had more parenting and family problems, while children whose disposition at discharge was "referral within the agency" had more internalizing problems (see Table 5.3a and b).

For Agency 2, the percentage presenting with parenting and family problems was higher in children with shared custody arrangements compared to those with birth/adoptive parents, but this difference was not statistically significant (see Table 5.3c).

Table 5.3a. Relationship between presenting concerns and child age for Agency 1.

	Child Age	
	<12 years old	12+ years old
Externalizing	50.2%	35.3%*
Internalizing	58.7%	69.9%*
Parenting and family	40.1%	36.4%
Other	30.0%	34.6%

* $p < .01$.

Note. The table summarizes the percentages of families with a presenting concern category within an age group. Column percentages are reported; as families could have had more than one presenting concern, percentages do not sum to 100. For example, 50.2% of children <12 years old presented with externalizing problems, whereas 35.3% of children 12+ year old presented with externalizing problems. The difference in externalizing problems between <12 year old and 12+ year old groups (i.e., 50.2% vs. 35.3%) is statistically significant which is denoted by the asterisk.

Table 5.3b. Relationship between presenting concerns and disposition at discharge for Agency 1.

	Disposition at discharge	
	No referral within the agency	Referral within the agency
Externalizing	43.6%	45.9%
Internalizing	57.0%	73.3%*
Parenting and family	42.5%	32.2%*
Other	33.5%	28.8%

* $p < .01$.

Note. The table summarizes the percentages of families with a presenting concern category within a disposition at discharge group. Column percentages are reported; as families could have had more than one presenting concern, percentages do not sum to 100. For example, 57.0% of children with "no referral within the agency" presented with internalizing problems, whereas 73.3% of children with "referral within the agency" presented with internalizing problems. The difference in internalizing problems between "no referral within the agency" and "referral within the agency" groups (i.e., 57.0% vs. 73.3%) is statistically significant which is denoted by the asterisk.

Table 5.3c. Relationship between presenting concerns and guardianship for Agency 2.

	Guardianship	
	Birth/adoptive parents	Shared custody
Externalizing	39.7%	34.0%
Internalizing	58.5%	50.0%
Parenting and family	18.1%	30.4%
Other	58.8%	71.4%

Note. The table summarizes the percentages of families with a presenting concern category within a guardianship group. Column percentages are reported; as families could have had more than one presenting concern, percentages do not sum to 100. For example, 39.7% percent of children under

the guardianship of both parents presented with externalizing problems, whereas 34.0% of children in shared custody presented with externalizing problems. The difference in externalizing problems between children under the guardianship of both parents and children in shared custody groups (i.e., 39.7% vs. 34.0%) is not statistically significant.

5.8 Discussion

The current study explored how MHWC use is related to use of other agency services. A substantial number of families use MHWCs alongside other services (57-67%). As hypothesized, families tended to use MHWCs earlier in their service use journey with some differences between agencies. In Agency 1, more families used MHWCs before other agency services (67% vs. 57%), while in Agency 2 more families used MHWCs concurrently with other agency services (21% vs. 1.6%). One of the differences between the agencies that may account for this is the use of MHWCs as a point of intake in Agency 1, but not in Agency 2.

Correlates of MHWCs use before other agency services differed between the agencies. For Agency 1, younger children had lower odds of MHWC use before other agency services. This is consistent with some studies examining service use (Sayal, 2006). Supplementary analyses showed that younger children (<12 years old) had more externalizing problems whereas older children (12+ years old) had more internalizing problems. It likely that agencies are using more behavioral approaches with younger children and children with externalizing problems (which tend to co-occur), and more cognitive approaches with older children and children with internalizing problems (which also tend to co-occur). Behavioral approaches (e.g., praise, rewards, behavioral activation) may be easier to cover in a MHWC setting and for families to implement following a MHWC session. So, these families may be less likely to need other agency services. It is also possible that these behavioral approaches require parents to change *their* behavior, which they may not be prepared to do[1]. So, these families may be less likely to seek other agency services. Cognitive approaches (e.g., cognitive restructuring), on the other hand, may require more ongoing support. It also tends to require more child/youth change, which may be easier for parents to support and/or for the youth to seek independently[1]. Thus, it may be an interaction of age, presenting concern, and therapeutic approach that impact and influence service use.

[1] Informed by the discussion with Agency 1 and Agency 2 when the findings were presented to them in June 2022.

Children whose disposition at discharge was “no referral within the agency” had lower odds of using other agency services after MHWCs, compared to children whose disposition at discharge was “referral within the agency”. Supplementary analyses showed that children whose disposition at discharge was “no referral within the agency” had more parenting and family and other problems, while children whose disposition at discharge was “referral within the agency” had more internalizing problems. It may be that internalizing problems represent more severe psychopathology, thereby, needing additional supports. However, information about the severity of the presenting concern was not recorded so as to examine this possibility.

For Agency 2, children whose parents have shared custody had higher odds of MHWC use before other agency services compared to those living with birth/adoptive parents. Supplementary analyses did not elucidate any statistically relationship between guardianship and presenting problems, which may have been due to the smaller sample size in Agency 2. Children or families in these living arrangements are likely exposed to more stressors (e.g., parental conflict during separation), which is consistent with the trend of more parenting and family issues as presenting problems. As such, these families may require more supports (Barrett & Turner, 2005; Davidson et al., 2014).

5.8.1 Implications and Limitations

Between 33% and 43% of families use MHWCs exclusively, appearing to be sufficient and potentially easing the pressure on other agency services. The remaining families (57% to 67) use MHWCs alongside other agency services. For these families, MHWC use was most often earlier in the service use trajectory. That is, before or concurrently with other agency services. Thus, MHWCs most often serve as the first service with an agency and as support while they are connected to other agency services. MHWCs can also be used after other agency services, where they may serve as booster sessions (e.g., reviewing previously learned skills to maintain treatment gains); however, this was rare (3-7%).

There were some limitations that are worth noting. First, there was a substantial list of inclusion and exclusion criteria. As such, the results are only generalizable to agencies similar to those that were recruited. One of the criteria required that agencies be located in a census division with a small urban center. Use of MHWCs may be different in agencies located in other census

divisions. It is possible that, in larger urban centers, families have a MHWC visit at one agency and then other visits at another agency. This would result in different patterns of service use within a given agency. Another of the criteria required that agencies serve most mental health problems. Use of MHWCs may vary in agencies that specialize in some presenting concerns, like addictions. It is difficult to say, however, exactly how this and other criteria (e.g., age) would have impact the results.

Second, the number of families that used MHWCs concurrently, during the service use trajectory, or after other agency services were relatively small. As such, correlates specific to these time points could not be explored. Third, logistic regression, unlike other statistical approaches (e.g., Cox regression), does not take censoring into account. Fourth, information about the severity and/or impairment of the presenting concern was not available. This information would be helpful in further understanding the findings. Fifth, children over 12 years old must consent to have a file opened for them. This means that files are not opened (i.e., no information is recorded) when a parent of a child over 12 years old accesses a MHWC *without* their child present. As such, these families could not be included or accounted for. Sixth, the current study focused on two community mental health agencies. Other services from the educational system, justice system, health care system, private practice were not captured in the current study. Thus, it is possible that some children/families accessed services from multiple sources, which could decrease the need for additional service at the CYMH agency. However, it is also important to note that only 1 case (0.04%) was referred to an external agency for services. The extremely low rate of referral to external agencies confirms the rationale for our choice of agencies; of families that came to the MHWCs, virtually all received help within the agency. This information was only available for Agency 1 and the referral rate may have been different for Agency 2. Lastly, it is unclear how the differences between the agencies (e.g., length of study window, whether MHWCs are used as a point of intake) lead to differences in correlates.

5.9 References

Barrett, A. E., & Turner, R. J. (2005). Family structure and mental health: The mediating effects of socioeconomic status, family process, and social stress. *Journal of Health and Social Behavior, 46*(2), 156–169.

Barwick, M., Urajnik, D., Sumner, L., Cohen, S., Reid, G., Engel, K., & Moore, J. E. (2013). Profiles and service utilization for children accessing a mental health walk-in clinic versus usual care. *Journal of Evidence-Based Social Work, 10*(4), 338–352.

Bhanot-Malhotra, S., Livingstone, S., & Stalker, C. (2010). *An inventory of walk-in counselling clinics in Ontario*. http://www.briefnarrative.com/field-notes/walk-in-inventory.pdf

Bloom, K., & Tam, J. A. (2015). Walk-in services for child and family mental health. *Journal of Systemic Therapies, 34*(1), 61–77.

Children's Mental Health Ontario. (2020). *Kids can't wait: 2020 report on wait lists and wait time for child and youth mental health care in Ontario*. https://cmho.org/wp-content/uploads/CMHO-Report-WaitTimes-2020.pdf

Comeau, J., Georgiades, K., Duncan, L., Wang, L., & Boyle, M. H. (2019). Changes in the prevalence of child and youth mental disorders and perceived need for professional help between 1983 and 2014: Evidence from the Ontario Child Health Study. *Canadian Journal of Psychiatry, 64*(4), 256–264.

Costello, E., Pescosolido, B., Angold, A., & Burns, B. (1998). A family network based model of access to child mental health services. *Research in Community and Mental Health, 9*, 165–190.

Davidson, R. D., O'Hara, K. L., & Beck, C. J. A. (2014). Psychological and biological processes in children associated with high conflict parental divorce. *Juvenile and Family Court Journal, 65*(1), 29–44.

Duncan, L., Georgiades, K., Reid, G. J., Comeau, J., Birch, S., Wang, L., & Boyle, M. H. (2020). Area-level variation in children's unmet need for community-based mental health services:

Findings from the 2014 Ontario Child Health Study. *Administration and Policy in Mental Health and Mental Health Services Research*, *47*(5), 665–679.

Harper-Jaques, S., McElheran, N., Slive, A., & Leahey, M. (2008). A comparison of two approaches to the delivery of walk-in single session mental health therapy. *Journal of Systemic Therapies*, *27*(4), 40–53.

Horton, S., Stalker, C., Cait, C.-A., & Josling, L. (2012). Sustaining walk-in counselling services. *Healthcare Quarterly*, *15*(3), 44–49.

Hymmen, P., Stalker, C. A., & Cait, C. A. (2013). The case for single-session therapy: Does the empirical evidence support the increased prevalence of this service delivery model? *Journal of Mental Health*, *22*(1), 60–71.

Miller, J. K., & Slive, A. (2004). Breaking down the barriers to clinical service delivery: Walk-in family therapy. *Journal of Marital and Family Therapy*, *30*(1), 95–103.

Organisation for Economic Co-operation and Development. (2020). *Urban population by city size*.

Perkins, R. (2006). The effectiveness of one session of therapy using a single-session therapy approach for children and adolescents with mental health problems. *Psychology and Psychotherapy: Theory, Research and Practice*, *79*(2), 215–227.

Reid, G. J., & Brown, J. B. (2008). Money, case complexity, and wait lists: Perspectives on problems and solutions at children's mental health centers in Ontario. *Journal of Behavioral Health Services and Research*, *35*(3), 334–346.

Reid, G. J. ., Stewart, S. L., Zaric, G. S., Carter, J. R., Neufeld, R. W., Tobon, J. I., Barwick, M., & Vingilis, E. R. (2015). Defining episodes of care in children's mental health using administrative data. *Administration and Policy in Mental Health*, *42*(6), 737–747.

Reid, G. J., Stewart, S. L., Barwick, M., Cunningham, C., Carter, J., Evans, B., Leschied, A., Neufeld, R. W., St. Pierre, J., Tobon, J. I., Vingilis, E. R., & Zaric, G. S. (2021). Exploring patterns of service utilization within children's mental health agencies. *Journal of Child and Family Studies*, *30*(2), 556–574.

Sarmiento, C., & Reid, G. J. (2022). Mental health walk-in clinics for children and families: A provincial survey. *Advances in Mental Health*, 1–12.

Sayal, K. (2006). Annotation: Pathways to care for children with mental health problems. *Journal of Child Psychology and Psychiatry*, *47*(7), 649–659.

Schleider, J. L., & Weisz, J. R. (2017). Little treatments, promising effects? Meta-analysis of single-session interventions for youth psychiatric problems. *Journal of the American Academy of Child and Adolescent Psychiatry*, *65*(2), 107–115.

Slive, A., & Bobele, M. (2012). Walk-in counselling services: Making the most of one hour. *Australian and New Zealand Journal of Family Therapy*, *33*(1), 27–38.

Slive, A., McElheran, N., & Lawson, A. (2008). How brief does it get? Walk-in single session therapy. *Journal of Systemic Therapies*, *27*(4), 5–22.

Stalker, C. A., Horton, S., & Cait, C.-A. (2012). Single session therapy in a walk-in counselling clinic: A pilot study. *Journal of Systemic Therapies*, *31*(1), 38–52.

Statistics Canada. (2017). *Dictionary, Census of Population, 2016: Low-income measure, after tax (LIM-AT)*. https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/fam021-eng.cfm

Stoltzfus, J. C. (2011). Logistic regression: A brief primer. *Academic Emergency Medicine*, *18*(10), 1099–1104.

Warner, R. (2013). *Applied statistics: From bivariate through multivariate techniques* (2 ed). SAGE.

Chapter 6

6 Mental Health Walk-in Clinics in Canada: General Discussion

Mental health walk-in clinics (MHWCs) have the ability to complement existing services in the continuum of care and help address the service shortfalls in the child and youth mental health (CYMH) system. This dissertation contributed novel information about the availability, implementation, and use of this service delivery model in CYMH agencies. This was done using data sources and statistical techniques that have not been used previously in the MHWC literature.

The following sections review the findings, followed by implications, future studies, and limitations.

6.1 Summary of Key Findings

6.1.1 Availability

In terms of availability, the national survey was well received by agencies with an overall response rate of 62%. This is higher than response rates from other Canadian national surveys, which range from 31% to 48% (Henderson et al., 2015; Kowalewski et al., 2011; Vallerand & Mclennan, 2013). The survey showed that 73% of CYMH agencies in the total sample, and 69% of CYMH agencies in the random sample offer MHWCs. These estimates are higher than what has been previously reported other by national and provincial surveys (50%; Duvall et al., 2012; Vallerand & Mclennan, 2013). This increase might have occurred from initiatives or requirements to make this service available. For example, in Ontario, the Ministry of Children and Youth Services started a system transition process in 2015, requiring agencies to provide brief services (e.g., MHWCs; K. Young, 2018). To the best of the author's knowledge, agencies have not abandoned these brief service initiatives with the transition of CYMH services to the Ministry of Health.

6.1.2 Implementation

In terms of implementation, the Ontario provincial survey found that agencies differed in the modalities (e.g., one or two clinicians, outsider witness) and approaches (e.g., cognitive behavioural therapy, narrative therapy) used in the MHWCs. The procedures associated with the service also varied; for instance, whether it is used as a point of intake and whether there is a limit to the number of MHWC visit per family. This variability shows how this service delivery model is flexible and can be tailored to fit the needs of an agency and community. What is unknown is the reasons for this variability, or if these changes resulted in either improved uptake or effectiveness of the service. Further, this variability presents challenges for research. Specifically, it is possible that correlates for MHWC use may vary from agency to agency based on the implementation and/or to because of other factors. This issue was encountered in Chapters 4 and 5.

6.1.3 MHWC Use

In terms of MHWC use, electronic administrative data from two agencies were collected. The agencies differed in the way in which they implemented the MHWCs, resulting in some differences in service use. For example, the percentage of families using the MHWCs was higher in the agency that used MHWCs as a point of intake, compared to the agency that did not. A missing element from our understanding is how the MHWCs fit within the context of the help-seeking process. For example, we do not know how families heard of the MHWCs (e.g., searching the agency website, seeing an advertisement on social media).

Other service use findings held across the agencies. In terms of MHWC use, 64-68% of families have one MHWC session and the remainder have two or more MHWC sessions. In terms of other services, 33-43% of families use MHWCs exclusively and the remainder use MHWCs alongside other agency services; most often, earlier in the service use trajectory. This suggests that MHWCs may be sufficient for some families and having this service delivery model may ease the pressure on other agency services. For other families, MHWCs can help support them at the beginning of their service journey, which can be a complicated system to navigate.

Correlates were generally specific to each agency and each outcome, making it more difficult to understand the underlying mechanisms. These variations may be partly due to the differences in how MHWCs were implemented; differences that the provincial survey show are common in Ontario. It may also be related to area-wide variations in need for mental health services (Duncan et al., 2020). For example, certain areas may have lower socio-economic disadvantage or have unsatisfactory public transport, which have been found to have greater need for services.

6.2 Implications and Future Studies

The findings of this dissertation have important implications in terms of policy. First, MHWCs appear to benefit agencies and families, thereby supporting their role in a continuum of services. Specifically, agencies reported in the provincial survey that they perceive positive outcomes associated with the implementation of MHWCs (e.g., reduced waitlists, high client and clinician satisfaction), and the administrative data suggests that MHWCs may be meeting the needs for a substantial portion of families.

Second, most agencies quickly adapted to COVID-19 restrictions by providing virtual MHWC and most were interested in continuing to do so, likely increasing access to families that had difficulty attending in-person (e.g., limited transportation, needing childcare for other children). This might have, however, made it difficult for other families to access the service (e.g., no reliable internet connection, no/limited phone calls). It would be ideal for families to have the option of both in-person and virtual MHWCs within a community (e.g., in-person offered by one agency and virtual offered by another; one agency providing both options) so as to maximize accessibility for families.

Lastly, less than a third of agencies reported using validated measures in MHWCs on the provincial survey. Different policies and procedures are needed to help agencies improve this practice. For example, it is possible that the cost of measures and ease of use are barriers. This could be addressed by identifying publicly available measures (e.g., Strengths and Difficulties Questionnaire; Vostanis, 2006) and using existing software to score it (e.g., working with EMHware to create a form that can be added to a file and automatically score the questionnaire).

There are, at least, four crucial areas for future research. First, exploring both the availability and implementation of MHWCs across Canada on a larger and more representative scale (e.g., sampling all CYMH agencies, including those that specialize on some presenting concerns). This would help better understand how common this service delivery model is, and whether the heterogeneity of implementation is unique to Ontario or also found in other provinces/territories. The current dissertation highlighted methodological approaches that are effective (e.g., offering the option to complete the survey over the phone or online, following up with agencies, and verifying e-mails), as well as recruitment issues that should be considered (e.g., availability vs. knowledge of agency staff that participate).

Second, assessing the clinical and cost effectiveness of MHWCs. There is a paucity of research in this area, likely because of the challenges with conducting these studies (e.g., attrition with follow-up studies). A systematic, province-wide implementation of MHWCs would be very useful to evaluate the effectiveness of this service delivery model. This implementation could incorporate the use of brief, standardized outcome measures assessing psychopathology, impairment, and burden. Other key information could also be recorded (e.g., scheduled vs. unscheduled sessions, other service use). This province-wide implementation could also be used to evaluate the cost of implementing the service and whether it is offset by clinical and/or logistical benefits (e.g., reduced waitlists, lower demand on other services, lower demand on more expensive services).

Third, exploring patterns of mental health service use across sectors by linking administrative data to Ontario Health Insurance Plan (OHIP) data. This could be done by using probabilistic matching using the child's date of birth, sex, postal code, and initials. This would help determine whether the implementation and use of MHWCs affects mental health visits in the health sector. At an individual level, mental health visits in the health sector could be examined before and after a families' MHWC visit. At a community level, mental health visits in the health sector could be examined before and after the opening of MHWCs visits in a community. It is possible that MHWCs reduce health service use, which can be more expensive (e.g., emergency department visits).

Lastly, exploring whether MHWCs can be a service delivery model that can improve access for diverse and minority populations. Research examining how general mental health service use is influenced by ethnicity/culture, has found that minority groups are less likely to use services despite having equal or more need for services (Le Cook et al., 2017). It is possible that MHWCs address some of the barriers experienced by these groups. However, further research is needed to examine whether this is the case as well as to better understand how this service is perceived.

6.3 Limitations

There are some limitations worth noting. First, there was a substantial list of inclusion and exclusion criteria for all studies. As such, the results are only generalizable to similar agencies (e.g., serving the entire community, providing face-to-face services for children, addressing a wide-range of presenting concerns). The availability, implementation, and use of MHWCs may be different in agencies providing services for different populations or presenting concerns as well as those located census divisions with smaller or larger urban centers.

Second, the studies largely focused on Ontario because of response rates (i.e., national survey) or design (i.e., provincial survey and administrative data). It is possible that the availability, implementation, and use of MHWCs may vary from province to province, given that each province has different policies for CYMH (Kutcher et al., 2010).

Third, the sample size of the administrative data did now allow for certain analyses. For example, correlates for MHWC use alongside other services at different time points (e.g., before vs. concurrently vs. after) could not be explored. It is possible that correlates may differ because MHWC use at different time points have different implications. For instance, MHWC use before other services implies that MHWCs are the gateway to other services, while MHWC use after other services implies that MHWCs are also a form of booster sessions/care.

Fourth, the sample size for the administrative data for Agency 2 was significantly smaller than for Agency 1. This limited the power to detect significant relationships. Fifth, children over 12 years old must consent to have a file opened for them. This means that files are not opened (i.e., no information is recorded) when a parent of a child over 12 years old accesses a MHWC *without*

their child present. As such, these families could not be included or accounted for. Lastly, data on other health and mental health services outside of the two agencies were not available. It is possible that families accessed MHWCs from another agency, family physician, or other health care provider, which were not accounted for. For example, an administrative data study in Ontario found that 70% of children receiving services from a CYMH agency also had a physician-based mental health visit before the age of 18 (Schraeder et al., 2021).

6.4 References

Duncan, L., Georgiades, K., Reid, G. J., Comeau, J., Birch, S., Wang, L., & Boyle, M. H. (2020). Area-level variation in children's unmet need for community-based mental health services: Findings from the 2014 Ontario Child Health Study. *Administration and Policy in Mental Health and Mental Health Services Research*, *47*(5), 665–679.

Henderson, J. L., Chaim, G., Luca, S., Brownlie, E. B., Rosenkranz, S., Skilling, T. A., & Beitchman, J. H. (2015). Program manager perspectives on the service system to meet the needs of youth with concurrent disorders: Findings from a Canadian national survey. *BMC Health Services Research*, *15*(1), 1–9.

Kowalewski, K., McLennan, J. D., & McGrath, P. J. (2011). A preliminary investigation of wait times for child and adolescent mental health services in Canada. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *20*(2), 112–119.

Kutcher, S., Hampton, M. J., & Wilson, J. (2010). Child and adolescent mental health policy and plans in Canada: An analytical review. *The Canadian Journal of Psychiatry*, *55*(2), 100–107.

Le Cook, B., Trinh, N. H., Li, Z., Hou, S. S. Y., & Progovac, A. M. (2017). Trends in racial-ethnic disparities in access to mental health care, 2004–2012. *Psychiatric Services*, 68(1), 9-16.

Lui, J. H. L., Brookman-Frazee, L., Vázquez, A. L., Cox, J. R., Innes-Gomberg, D., Taguchi, K., Pesanti, K., & Lau, A. S. (2021). Patterns of child mental health service utilization within a multiple EBPsystem of care. *Administration and Policy in Mental Health and Mental Health Services Research*, *0123456789*.

Reid, G. J., & Brown, J. B. (2008). Money, case complexity, and wait lists: Perspectives on problems and solutions at children's mental health centers in Ontario. *Journal of Behavioral Health Services and Research*, *35*(3), 334–346.

Sayal, K. (2006). Annotation: Pathways to care for children with mental health problems.

Journal of Child Psychology and Psychiatry, *47*(7), 649–659.

Schraeder, K. E., Barwick, M., Cairney, J., Carter, J., Kurdyak, P., Neufeld, R. W. J., Stewart, S. L., Pierre, J. S., Tobon, J., Vingilis, E., Zaric, G., & Reid, G. J. (2021). Re-accessing mental health care after age 18: A longitudinal cohort study of youth involved with community-based child and youth mental health agencies in Ontario. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *30*(1), 12–24.

Vallerand, I. A., & Mclennan, J. D. (2013). Child and adolescent mental health service management strategies that may influence wait times. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *22*(2), 159–165.

Vostanis, P. (2006). Strengths and Difficulties Questionnaire: Research and clinical applications. *Current Opinion in Psychiatry*, *19*(4), 367–372.

Young, K. (2018). Change in the winds: The growth of walk-in therapy clinics in Ontario, Canada. In M. F. Hoyt, M. Bobele, A. Slive, J. Young, & M. Talmon (Eds.), *Single-session therapy by walk-in or appointment: Administrative, clinical, and supervisory aspects of one-at-a-time services* (pp. 59–71). Routledge.

Appendices

Appendix A: Research Ethics Approval Forms

Western Research

Date: 23 September 2019

To: Dr. Graham Reid

Project ID: 114034

Study Title: Use of stepped-care and walk-in clinics in children's mental health services: A Canadian national survey

Application Type: HSREB Initial Application

Review Type: Delegated

Full Board Reporting Date: October 1, 2019

Date Approval Issued: 23/Sep/2019

REB Approval Expiry Date: 23/Sep/2020

Dear Dr. Graham Reid

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above mentioned study as described in the WREM application form, as of the HSREB Initial Approval Date noted above. This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
WCS Feasibility Study E-mail 2019.05.25	Email Script	25/May/2019	2
WCS Feasibility Study LOI ETHICS 2019.08.09	Written Consent/Assent	09/Aug/2019	3
WCS Feasibility Study Proposal ETHICS 2019.08.09	Protocol	09/Aug/2019	3
WCS Feasibility Study Qualtrics ETHICS 2019.09.11	Online Survey	11/Sep/2019	4
WCS Feasibility Study Telephone Script Broad Survey 2019.09.11	Telephone Script	11/Sep/2019	4

No deviations from, or changes to, the protocol or WREM application should be initiated without prior written approval of an appropriate amendment from Western HSREB , except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Karen Gopaul, Ethics Officer on behalf of Dr. Joseph Gilbert, HSREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Date: 5 August 2020

To: Dr. Graham Reid

Project ID: 115545

Study Title: Mental Health Walk-In Clinics for Families in Ontario

Application Type: HSREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 18/Aug/2020

Date Approval Issued: 05/Aug/2020

REB Approval Expiry Date: 05/Aug/2021

Dear Dr. Graham Reid

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above mentioned study as described in the WREM application form, as of the HSREB Initial Approval Date noted above. This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
115545.MHWC.Qualtrics.2020.07.07	Online Survey	07/Jul/2020	3
115545.MHWC.AdminIntroductionEmail.2020.07.07	Email Script	07/Jul/2020	3
115545.MHWC.SurveyIntroductionEmail.2020.07.07	Email Script	07/Jul/2020	3
115545.MHWC.SurveyReminderEmail.2020.07.07	Email Script	07/Jul/2020	3
115545.MHWC.AdminPhoneScript.2020.07.07	Telephone Script	07/Jul/2020	3
115545.MHWC.SurveyPhoneScript.2020.07.07	Telephone Script	07/Jul/2020	3
115545.MHWC.SurveyLOI.2020.07.07	Written Consent/Assent	07/Jul/2020	3
115545.MHWC.Procedures.2020.07.07	Protocol	07/Jul/2020	3
115545.MHWC.AdminLOI.2020.08.05	Written Consent/Assent	05/Aug/2020	4

No deviations from, or changes to, the protocol or WREM application should be initiated without prior written approval of an appropriate amendment from Western HSREB , except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Karen Gopaul, Ethics Officer on behalf of Dr. Joseph Gilbert, HSREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix B: Chapter 4 Supplemental Materials

Table B1. Presenting concern subcategories for all families with a MHWC visit.

	Agency 1	Agency 2
	n (%)	n (%)
Externalizing concerns	806 (31.7%)	171 (39.5%)
Substance use and addictions	23 (0.9%)	4 (0.9%)
Sexualized behaviors	14 (0.6%)	2 (0.5%)
Other (e.g., hyperactivity)	786 (30.9%)	169 (39.0%)
Internalizing concerns	1292 (50.9%)	236 (54.5%)
Eating	2 (0.1%)	5 (1.2%)
Abuse, trauma, attachment	217 (8.5%)	41 (9.5%)
Suicidal ideation/attempt	161 (6.3%)	37 (0.5%)
Other (e.g., anxiety)	1060 (41.7%)	182 (42.0%)
Parenting and family concerns	639 (25.2%)	57 (13.2%)
Parenting	325 (12.8%)	47 (10.9%)
Custody and marriage	410 (16.1%)	14 (3.2%)
Home environment and stability	9 (0.4%)	2 (0.5%)
Other concerns	500 (19.7%)	236 (54.5%)
School and social	269 (10.6%)	109 (25.2%)
Developmental and neurodevelopmental	38 (1.5%)	49 (11.3%)
Other (e.g., sleep difficulties)	260 (10.2%)	158 (36.5%)

Note. Clinicians could code multiple presenting concerns for a visit.

Table B2. Disposition at discharge subcategories after first MHWC visit for all families with a MHWC visit.

	Agency 1 (N=2540)
	n (%)
No referral within the agency	1517 (59.7%)
Mutual completion	745 (29.3%)
No referral	771 (30.4%)
Referral to external agency	1 (0.04%)
Referral within the agency	961 (37.8%)
Still waiting for another service	5 (0.2%)
Referral within the agency	945 (37.2%)
Wanting additional services and directed to intake	11 (0.4%)
Missing	62 (2.4%)

Table B3. Analyses of missing data for the Cox regression models predicting time to a second MHWC visit.

Total missing across correlates	Agency 1	Agency 2
	n (%)	n (%)
No missing data	1740 (69.0%)	293 (68.0%)
1	322 (12.8%)	107 (24.8%)
2	434 (17.2%)	17 (3.9%)
3	24 (0.9%)	3 (0.7%)
4	1 (0.04%)	2 (0.5%)
5	-	9 (2.1%)

Note. Analyses by families/cases (e.g., 12.8% of families were missing data on 1 correlate for Agency 1).

Table B4. Number of MHWC visits that families had.

	Agency 1 (N=2540)	Agency 2 (N=433)
	n (%)	n (%)
1	1720 (67.7%)	276 (63.7%)
2	540 (21.3%)	92 (21.2%)
3	188 (7.4%)	27 (6.2%)
4	53 (2.1%)	16 (3.7%)
5	23 (0.9%)	11 (2.5%)
6	9 (0.4%)	4 (0.9%)
7	3 (0.1%)	4 (0.9%)
8	1 (0.04%)	3 (0.7%)
9	2 (0.1%)	-
10	1 (0.04%)	-

Table B5. Unadjusted and adjusted hazards ratios for time to a second visit without disposition at discharge.

	Agency 1		Agency 2	
	Unadjusted	Adjusted	Unadjusted	Adjusted
	HR (95% CI)	HR (95% CI)	HR (95% CI)	HR (95% CI)
Social content				
Child age [a]				
<12 years old	1.18 (1.02-1.37)*	1.20 (1.03-1.39)*	1.20 (0.86-1.67)	1.21 (0.85-1.72)
Child gender [b]				
Male	1.04 (0.90-1.19)	1.02 (0.88-1.18)	0.79 (0.57-1.11)	0.75 (0.52-1.07)
Neighbourhood poverty [c]				
High poverty	1.17 (1.01-1.36)*	1.14 (0.97-1.33)	0.84 (0.60-1.18)	0.81 (0.57-1.14)
Guardianship of child [d]				
Shared custody	1.32 (1.07-1.63)*	1.32 (1.05-1.66)*	1.20 (0.71-2.03)	1.23 (0.72-2.10)
Birth/adoptive mother or father	1.29 (1.07-1.55)**	1.29 (1.06-1.58)*	0.85 (0.58-1.25)	0.83 (0.55-1.24)
Other	1.22 (0.90-1.65)	1.24 (0.89-1.71)	1.01 (0.55-1.86)	1.02 (0.54-1.91)
Presenting concern				
Externalizing [e]	0.98 (0.82-1.18)	0.97 (0.75-1.24)	0.94 (0.67-1.32)	1.04 (0.52-2.08)
Internalizing [e]	0.99 (0.84-1.19)	1.03 (0.81-1.32)	0.99 (0.71-1.41)	1.05 (0.54-2.05)
Parenting and family [e]	1.01 (0.84-1.21)	0.96 (0.74-1.25)	0.96 (0.59-1.56)	1.04 (0.51-2.12)
Other [e]	0.97 (0.80-1.18)	0.99 (0.76-1.29)	1.03 (0.73-1.46)	1.02 (0.52-1.99)
Number of presenting concerns [f]				
1	1.04 (0.80-1.35)	1.07 (0.68-1.68)	1.13 (0.71-1.79)	1.22 (0.34-4.34)

	2	1.04 (0.81-1.34)	1.03 (0.75-1.42)	1.28 (0.79-2.07)	1.39 (0.64-3.05)

* p <.05 ** p <.01

[a] Reference category is children 12+

[b] Reference category is females.

[c] Reference category is low poverty.

[d] Reference category is birth/adoptive parents.

[e] Reference category is no presenting problem in that category.

[f] Reference category 3+ presenting concern categories.

Table B6. Descriptive statistics of child, family, and service use for families included in the Cox regression, following multiple imputation.

	Agency 1	Agency 2
	n (%)	n (%)
Child		
Child age		
<12 years old	1601 (63.5%)	254 (60.2%)
12+ years old	920 (36.5%)	168 (39.8%)
Child gender		
Female	1272.3 (50.5%)	190.5 (45.1%)
Male	1248.7 (49.5%)	231.6 (54.9%)
Family		
Guardianship of child		
Birth/adoptive parents	1001.7 (39.7%)	181.7 (43.1%)
Shared custody	494.9 (19.6%)	53.8 (12.7%)
Birth/adoptive mother/father	845.2 (33.5%)	149.3 (35.4%)
Other	179.2 (7.1%)	37.3 (8.8%)
Neighborhood poverty		
Low poverty	1786 (70.8%)	259.4 (61.5%)
High poverty	735 (29.2%)	162.7 (38.5%)
Service use		
Presenting concern[1]		
Externalizing	1166.2 (46.3%)	188.7 (44.7%)
Internalizing	1594.3 (63.2%)	253.8 (60.1%)
Parenting and family	992.1 (39.4%)	75.2 (17.8%)
Other	799.9 (31.7%)	255.5 (60.5%)
Number of presenting concerns		
1	1102.8 (43.7%)	178.2 (42.2%)
2	898.4 (35.6%)	143.2 (33.9%)
3+	519.9 (20.6%)	100.7 (23.9%)
Disposition at discharge		
No referral within the agency	1558.5 (61.8%)	N/A
Referral within the agency	962.5 (38.2%)	N/A

[1] Clinicians could code multiple presenting concerns for a visit.

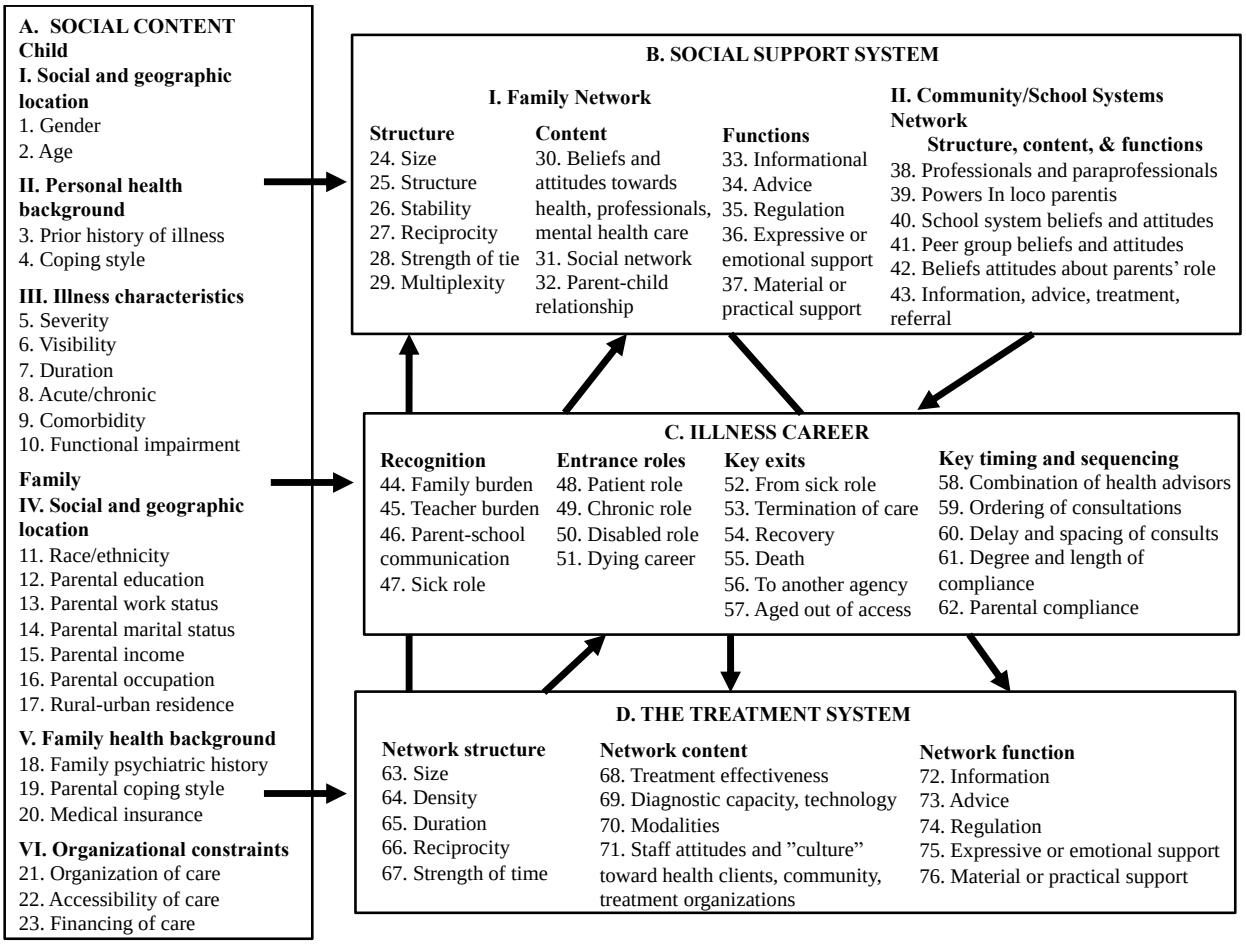

Figure B1. Revised Network-Episode Model. Adapted from "A Family Network Based Model of Access to Child Mental Health Services". E. Costello, B. Pescosolido, A. Angold and B. Burns, 1998, Research in Community and Mental Health, 9, 172. Copyright 1998 by JAI Press Inc.

Appendix C: Chapter 5 Supplemental Materials

Table C1. Presenting concern subcategories for all families with a MHWC visit.

	Agency 1	Agency 2
	n (%)	n (%)
Externalizing concerns	806 (31.7%)	171 (39.5%)
Substance use and addictions	23 (0.9%)	4 (0.9%)
Sexualized behaviors	14 (0.6%)	2 (0.5%)
Other (e.g., hyperactivity)	786 (30.9%)	169 (39.0%)
Internalizing concerns	1292 (50.9%)	236 (54.5%)
Eating	2 (0.1%)	5 (1.2%)
Abuse, trauma, attachment	217 (8.5%)	41 (9.5%)
Suicidal ideation/attempt	161 (6.3%)	37 (0.5%)
Other (e.g., anxiety)	1060 (41.7%)	182 (42.0%)
Parenting and family concerns	639 (25.2%)	57 (13.2%)
Parenting	325 (12.8%)	47 (10.9%)
Custody and marriage	410 (16.1%)	14 (3.2%)
Home environment and stability	9 (0.4%)	2 (0.5%)
Other concerns	500 (19.7%)	236 (54.5%)
School and social	269 (10.6%)	109 (25.2%)
Developmental and neurodevelopmental	38 (1.5%)	49 (11.3%)
Other (e.g., sleep difficulties)	260 (10.2%)	158 (36.5%)

Note. Clinicians could code multiple presenting concerns for a visit.

Table C2. Disposition at discharge subcategories after first MHWC visit for all families with a MHWC visit.

	Agency 1 (N=2540)
	n (%)
No referral within the agency	1517 (59.7%)
Mutual completion	745 (29.3%)
No referral	771 (30.4%)
Referral to external agency	1 (0.04%)
Referral within the agency	961 (37.8%)
Still waiting for another service	5 (0.2%)
Referral within the agency	945 (37.2%)
Wanting additional services and directed to intake	11 (0.4%)
Missing	62 (2.4%)

Table C3. Number of MHWC visits for families with MHWC and other agency service use, and MHWC use exclusively.

	Number of MHWC visits n (%)									
	1	2	3	4	5	6	7	8	9	10
Agency 1										
MHWC and other agency service use	1033 (60.9%)	413 (24.4%)	168 (9.9%)	46 (2.7%)	21 (1.2%)	8 (0.5%)	3 (0.2%)	1 (0.1%)	2 (0.1%)	1 (0.1%)
MHWC use exclusively	687 (81.4%)	127 (15.0%)	20 (2.4%)	7 (0.8%)	2 (0.2%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Agency 2										
MHWC and other agency service use	133 (53.8%)	61 (24.7%)	23 (9.3%)	13 (5.3%)	6 (2.4%)	4 (1.6%)	4 (1.6%)	3 (1.2%)	0 (0.0%)	0 (0.0%)
MHWC use exclusively	143 (76.9%)	31 (16.7%)	4 (2.2%)	3 (1.6%)	5 (2.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table C4. Analyses of missing data for the logistic regression models predicting MHWC use before other agency services, versus MHWC use only.

Total missing across correlates	Agency 1	Agency 2
	n (%)	n (%)
No missing data	1504 (66.7%)	174 (59.2%)
1	313 (13.9%)	97 (33.0%)
2	415 (18.4%)	10 (3.4%)
3	23 (1.0%)	3 (1.0%)
4	1 (0.04%)	2 (0.7%)
5	-	8 (2.7%)

Note. Analyses by families/cases (e.g., 13.9% of families were missing data on 1 correlate for Agency 1).

Table C5. Unadjusted and adjusted odds ratios for correlates of MHWC use before other agency services versus MHWC use only without disposition at discharge.

	Agency 1		Agency 2	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Social content				
Child age [a]				
< 12 years old	0.70 (0.59-0.84)**	0.70 (0.58-0.85)**	1.26 (0.76-2.09)	1.37 (0.78-2.38)
Child gender [b]				
Male	0.89 (0.75-1.06)	0.93 (0.77-1.13)	0.74 (0.45-1.21)	0.62 (0.36-1.09)
Neighbourhood poverty [c]				
High poverty	1.21 (0.99-1.46)	1.15 (0.92-1.44)	1.25 (0.75-2.07)	1.13 (0.66-1.94)
Guardianship of child [d]				
Shared custody	0.93 (0.71-1.21)	1.02 (0.75-1.43)	3.03 (1.25-7.35)*	3.26 (1.33-8.13)*
Birth/adoptive mother or father	1.13 (0.90-1.43)	1.15 (0.88-1.51)	1.53 (0.84-2.77)	1.55 (0.83-2.91)
Other	1.47 (0.95-2.26)	1.50 (0.92-2.43)	1.31 (0.42-4.10)	1.41 (0.42-4.72)
Presenting concern				
Externalizing [e]	1.25 (0.93-1.68)	1.50 (0.95-2.37)	1.23 (0.68-1.87)	1.12 (0.39-3.22)
Internalizing [e]	1.34 (1.05-1.70)*	1.40 (0.86-2.26)	0.68 (0.41-1.31)	0.64 0.22-1.85)
Parenting and family [e]	0.78 (0.61-0.99)*	0.78 (0.50-1.20)	1.18 (0.62-2.23)	1.04 (0.36-3.06)
Other [e]	1.17 (0.83-1.67)	1.14 (0.74-1.74)	0.91 (0.54-1.52)	0.84 (0.29-2.43)
Number of presenting concerns [f]				
1	0.74 (0.48-1.15)	0.91 (0.40-2.08)	1.11 (0.57-2.18)	0.96 (0.13-7.17)

	2	0.85 (0.54-1.34)	0.93 (0.54-1.61)	0.71 (0.34-1.47)	0.62 (0.17-2.20)

* $p < .05$ ** $p < .01$

[a] Reference category is children 12+.

[b] Reference category is females.

[c] Reference category is low poverty.

[d] Reference category is birth/adoptive parents.

[e] Reference category is no presenting problem in that category.

[f] Reference category 3+ presenting concern categories.

Table C6. Descriptive statistics of child, family, and service use for families included in the logistic regression, following multiple imputation.

	Agency 1	Agency 2
	n (%)	n (%)
Child		
Child age		
<12 years old	1385 (61.4%)	176 (61.5%)
12+ years old	871 (38.6%)	110 (38.5%)
Child gender		
Female	1166.3 (51.7%)	115.4 (40.3%)
Male	1089.7 (48.3%)	170.6 (59.7%)
Family		
Guardianship of child		
Birth/adoptive parents	924.9 (41.0%)	132.5 (46.2%)
Shared custody	431.9 (19.1%)	38.4 (13.4%)
Birth/adoptive mother/ father	744.3 (33.0%)	98.2 (34.3%)
Other	155 (6.9%)	17 (5.9%)
Neighborhood poverty		
Low poverty	1614 (71.5%)	181.8 (63.6%)
High poverty	642 (28.5%)	104.2 (36.4%)
Service use		
Presenting concern[1]		
Externalizing	1002.1 (44.4%)	118.1 (41.3%)
Internalizing	1421 (63.0%)	162.8 (56.9%)
Parenting and family	873.3 (38.7%)	56.5 (19.8%)
Other	717.6 (31.8%)	168.5 (58.9%)
Number of presenting concerns		
1	1016.4 (45.1%)	134 (46.9%)
2	792.9 (35.1%)	88.7 (31.0%)
3+	446.8 (19.8%)	63.3 (22.1%)
Disposition at discharge		
No referral within the agency	1429.5 (63.4%)	N/A
Referral within the agency	826.5 (36.6%)	N/A

[1] Clinicians could code multiple presenting concerns for a visit.

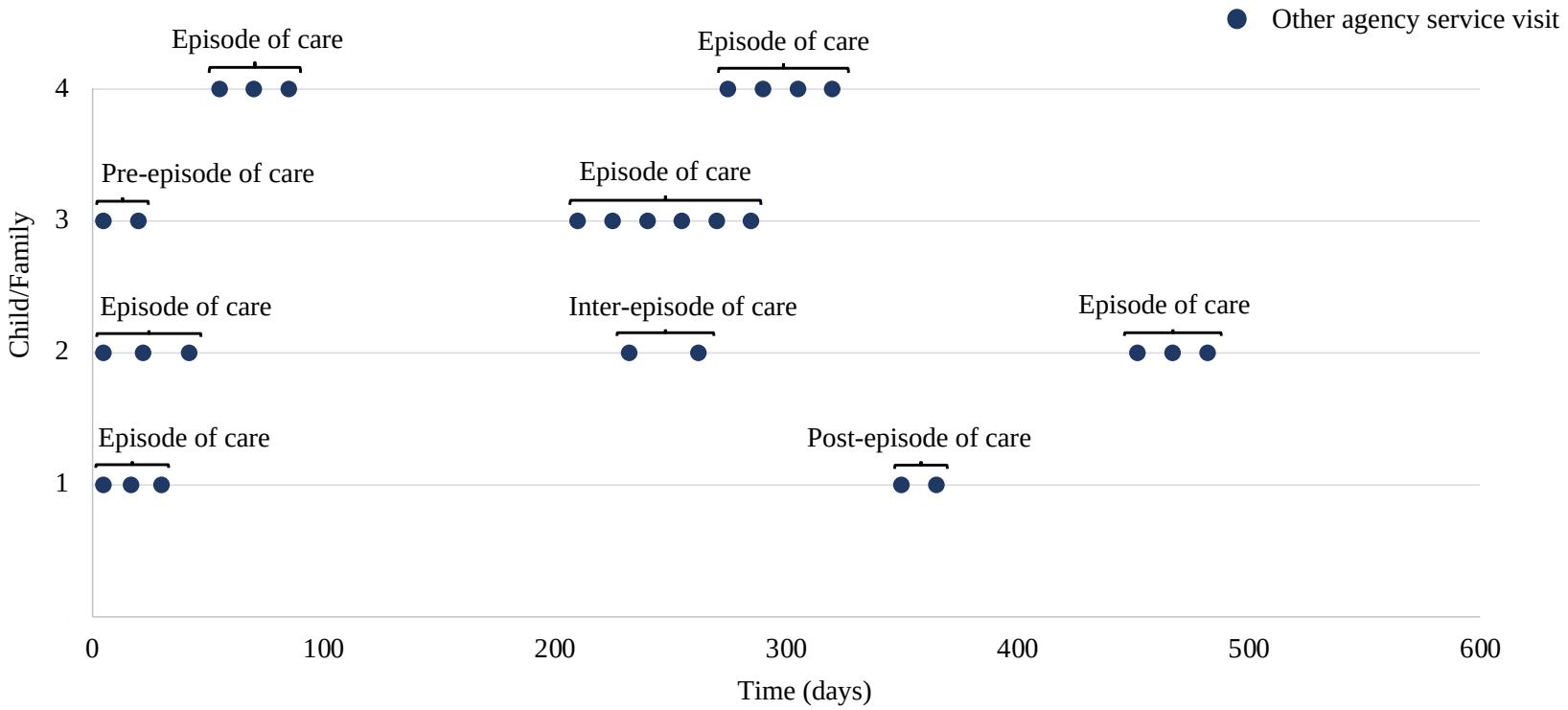

Figure C2a. Visual representation of how visit data were categorized with respect to episodes of care. An episode of care was defined as a minimum of 3 visits with a period of 180 days without visits between episodes (see child/family 4). Children could have visits that did not meet this criterion prior to the first episode of care; these were coded as pre-episode of care visits (see child/family 3). Children could also have visits that did not meet this criterion after an episode of care; these are referred to as inter-episode of care visits (i.e., visits between two episodes of care; see child/family 2) or post-episode of care visits (i.e., visits after the last episode of care; see child/family 1).

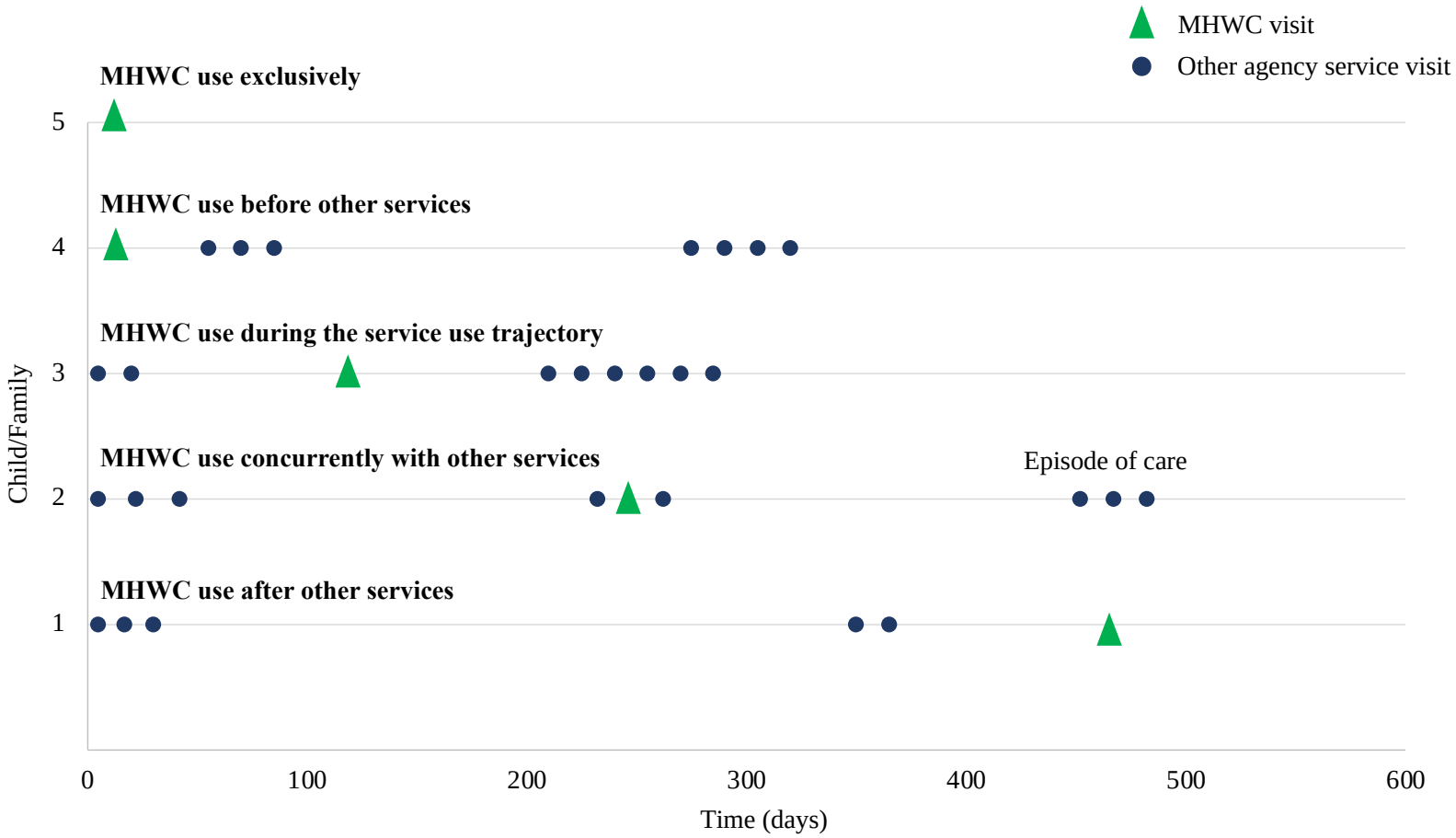

Figure C2b. Visual representation of the timing of the first MHWC visit with respect to other agency services. This created five possibilities: (1) MHWC use exclusively, (2) MHWC use before other agency services, (3) MHWC use during the service use trajectory (i.e., *before or after* a pre-episode of care, episode of care, inter-episode of care, or post-episode of care), (4) MHWC use concurrently with other agency services (i.e., *during* a pre-episode of care, episode of care, inter-episode of care, or post-episode of care), and (5) MHWC use after other agency services. Figure C2b in Appendix C presents examples of these groupings.

Catalina Sarmiento
Curriculum Vitae

EDUCATION

2017-Present	**Doctor of Philosophy, Clinical Psychology** Western University
2015-2017	**Master of Science, Clinical Psychology** Western University
2011-2015	**Bachelor of Science, Honours Psychology (summa cum laude)** University of Ottawa

AWARDS & GRANTS

2021	Reid, G.J., **Sarmiento, C**., Gardner, B., Cappelli, M., & Waddell, C. (2020-21) *Mental health walk-in clinics for families in Ontario (MHWC).* Western University Strategic Support for CIHR Success Accelerator Research Grant. $28,500
2020	**Mitacs Research Training Award,** Faculty of Social Sciences, Western University
2020	**Trainee Award,** Children's Health Research Institute
2018	**Scotiabank National Scholarship**
2017	**Quality of Life Initiative Graduate Research Fellowship,** Children's Health Research Institute
2016	**Quality of Life Initiative Graduate Research Fellowship,** Children's Health Research Institute
2016, 2018, 2019	**Ontario Graduate Scholarship,** Faculty of Social Sciences, Western University
2015-2021	**Western Graduate Research Scholarship,** Faculty of Social Sciences, Western University
2015	**University of Ottawa Silver Medal,** Faculty of Social Sciences, University of Ottawa
2013-2014	**Dean's Honor List Scholarship,** Faculty of Social Sciences, University of Ottawa
2013	**Lillian Gertsman Scholarship,** Faculty of Social Sciences, University of Ottawa
2011-2015	**Dean's Honor List,** Faculty of Social Sciences, University of Ottawa
2012-2015	**Merit Scholarship,** Faculty of Social Sciences, University of Ottawa
2011	**Education Bursary,** Faculty of Social Sciences, University of Ottawa
2011-2015	**Admission Scholarship,** Faculty of Social Sciences, University of Ottawa
2011	**Governor General's Academic Medal – Bronze,** Immaculata High School

2011 **Ontario Scholar,** Immaculata High School

CLINICAL EXPERIENCE

2021-Present Zayed Psychological Services

2020-2021 Child and Youth Development Clinic

2019-2020 Vanier Children's Mental Wellness

2019-2019 Child and Parent Resource Institute

2018- 2019 Psychological Services at Western University

2018-2018 Paediatric Chronic Pain Program - Children's Hospital

2017-2018 Child and Adolescent Mental Health Care Program, Outpatients - Children's Hospital

2017-2017 Vanier Children's Services

2017-2017 Sudermann Psychological Services

2016-2016 Student Development Center at Western University

TEACHING EXPERIENCE

INSTRUCTOR

2017 **Instructor,** Clinical Psychology (Psychology 3301), Western University

2016 **Instructor,** Clinical Psychology (Psychology 3301), Western University

TEACHING ASSISTANT

2020-2021 **Teaching Assistant,** Introduction to Psychology (Psychology 1000), Western University

2020 **Teaching Assistant and Tutorial Instructor,** Abnormal Child Psychology (Psychology 2320), Western University

2018 **Teaching Assistant and Tutorial Instructor,** Abnormal Child Psychology (Psychology 2320), Western University

2017 **Teaching Assistant,** The Maladjusted Mind (Psychology 2030), Western University

2016 **Teaching Assistant and Tutorial Instructor,** Abnormal Psychology (Psychology 2310), Western University

2015 **Teaching Assistant and Tutorial Instructor,** Abnormal Child Psychology (Psychology 2320), Western University

SUPERVISION AND RESEARCH EXPERIENCE

2021-Present **Research Subject Matter Expert,** McGraw-Hill

2017-2018 **Honours Thesis Co-Supervisor (Dr. Graham J. Reid; Kimberly Dossett)**, Annie Yang
Western University

2014-2015 **Research Volunteer,** Laboratory of Personality and Social Psychology
University of Ottawa

2013-2015 **Research Volunteer,** Santor Laboratory
University of Ottawa

2013-2014 **Research Assistant,** Extreme Events Institute
Florida International University

RELEVANT PUBLICATIONS

Sarmiento, C., & Reid, G. J. (2022). Levels of care: A scoping review of conceptualizations in child and adolescent mental health services. *Journal of Emotional and Behavioral Disorders.*

Sarmiento, C., & Reid, G. J. (2022). Mental health walk-in clinics for children and families: A provincial survey. *Advances in Mental Health*, 1-12.

Sarmiento, C., & Reid G.J. (2020). Re-accessing community mental health services for children and adolescents. *The Journal of Behavioral Health Services & Research*. *47*(1), 21-37.

Sarmiento, C. & Lau, C. (2020). Diagnostic and Statistical Manual of Mental Disorders, 5th Ed.: DSM-5. In B. J. Carducci (Editor-in-Chief) & A. Di Fabio, D. H. Saklofske, & C. Stough (Vol. Eds.), *The Wiley-Blackwell encyclopedia of personality and individual differences: Vol. III. Personality processes and individual differences (pp. 125-129)*. Hoboken, NJ: John Wiley & Sons.

Lau, C., Stewart, S.L., Sarmiento, C., Saklofske, D.H., & Tremblay, P.F. (2018). Who is at risk for problematic video gaming? Risk factors in problematic video gaming in Canadian clinically referred children and adolescents. *Multimodal Technologies and Interaction. 2*(2), 19.

RELEVANT POSTERS & PRESENTATIONS

Sarmiento, C. & Reid, G. J. (2022, June). *Mental health walk-in clinics for children and families*. Presented to St. Clair Child and Youth Services [Virtual presentation].

Sarmiento, C. & Reid, G. J. (2022, June). *Mental health walk-in clinics for children and families*. Presented to St. Haldimand-Norfolk REACH [Virtual presentation].

Lau, C., Sarmiento, C., Yan., G., & Saklofske, D.H. (2021, June). *Who benefits from aggressive humor? Moderating effects of emotional reactivity*. Poster presented at the 82nd Annual Canadian Psychological Association's Convention, Ottawa, Ontario [Virtual conference due to COVID-19].

Sarmiento, C., Dossett, K., & Reid, G. J. (2021, May). *Mental health walk-in clinics: A national feasibility study*. Poster presented at the Child Health Symposium, London, Ontario [Virtual conference due to COVID-19].

Sarmiento, C., Dossett, K., & Reid, G. J. (2021, May). *Stepped care models: A national feasibility study*. Poster presented at the London Health Research Day, London, Ontario [Virtual conference due to COVID-19].

Yang, A., Dossett, K., Sarmiento, C., & Reid, G.J. (2018, March). *Child, family, and service use predictors of community mental health treatment outcome*. University of Western Ontario Psychology Honours Thesis Poster Session, London, Ontario.

Sarmiento, C., & Reid, G.J. (2017, June). *Treatment outcomes of children's mental health services*. Poster presented at the 78th Annual Canadian Psychological Association Convention, Toronto, Ontario.

Sarmiento, C., & Reid, G.J. (2016, November). *Utilization of children's mental health services*. Poster presented at the 4th Annual Division of Child and Adolescent Psychiatry Research Half Day, London, Ontario.

Champaigne-Klassen, E., Bradley, K.L., Sarmiento, C., Oram, R., & Santor, D.A. (2015, November). *Understanding the psychological threats of negative life events.* Poster presented at the 49th Annual Association for Behavioral and Cognitive Therapies Convention, Chicago, Illinois.

Borisevich, S., Miranda, D., Blais-Rochette, C., Osman, M., & Sarmiento, C. (2015, June). *Words versus action: Are lyrics consistent with a band's social stand?* Poster presented at 76th Annual Canadian Psychological Association's Convention, Ottawa, Ontario.

Sarmiento, C., Bradley, K.L, Champagine-Klassen, E., Oram, R., & Santor, D.A. (2015, May). *Motives for negative thinking and worrying.* Poster presented at the 4th Annual Psychology Outside the Box Conference, Ottawa, Ontario.

Sarmiento, C., Lemay, J., & Santor, D.A. (2014, June*). Effect of age, gender and time of year on suicide rates: A population level analysis*. Poster presented at the 6th Annual Young Researcher's Conference, Ottawa, Ontario.