INTERNET BASED COGNITIVE BEHAVIOURAL THERAPY (ICBT): EVALUATION FINAL REPORT

Centre for Digital Health Evaluation,
Women's College Hospital Institute for
Health System Solutions and Virtual Care

Report Authors:
CDHE: Dr. Rebecca Liu, Roz Fanaieyan, Dr. Megan Nguyen, Bilal Khan, Serena Thapar, Dr. Mina Tadrous, Cherry Chu and Dr. Onil Bhattacharyya
Clinical Advisors: Dr. Blanca Bolea, Dr. Paul Kurdyak, and Dr. Marisa Leon-Carlyle
PAN: Anne O'Riordan and Maggie Keresteci

PRESENTED TO:
Digital Health Division, Ontario Ministry of Health

DATED: March 25, 2022

Acronyms

APQIP Assessment Process for Quality Improvement Projects

DSA Data Sharing Agreement

CDHE Centre for Digital Health Evaluation

GAD-7 Generalized Anxiety Disorder-7

ICBT Internet Based Cognitive Behavioural Therapy

PAN Patient Advisors Network

PHQ-9 Patient Health Questionnaire-9

PPE Patient Partner Evaluators

REB Research Ethics Board

REDCap™ Research Electronic Data Capture

WCH Women's College Hospital

WIHV Women's College Hospital Institute for Health System Solutions and Virtual Care

WSAS Work and Social Adjustment Scale

Operational Definitions

Abandonment rate measures the proportion of clients who left a program component without completing it.

Acceptability "is the perception among implementation stakeholders that a given treatment, service, practice, or innovation is agreeable, palatable, or satisfactory" (1).

Appropriateness "is the perceived fit, relevance, or compatibility of the innovation or evidence based practice for a given practice setting, provider, or consumer; and/or perceived fit of the innovation to address a particular issue or problem" (1).

Asynchronous communication encompasses virtual care modalities of secure messaging (e.g., through a patient portal), email, or text messaging.

Clients refers to individuals who have registered for the iCBT program.

Clinical improvement refers to the change of scores between the beginning and end of a course of treatment and is considered a reliable change if it exceeds the measurement error of the GAD-7 or PHQ-9 scale. This was determined by the Improved Access to Psychotherapy (IAPT) reliable change index. A 6-point change between first and last PHQ-9 score was a reliable change. A 4-point change between first and last GAD-7 scores was a reliable change (2).

Completion rate measures the number of clients who completed each program component out of total number of components assigned to them. For MindBeacon, a crude completion rate was calculated using condition-specific playlists as a total number of components assigned. It has been agreed by MindBeacon that this crude measure may overestimate program completion rate for MindBeacon clients as it does not incorporate individual-specific playlists into the total number of components assigned to each client.

Feasibility "is defined as the extent to which a new treatment, or an innovation, can be successfully used or carried out within a given agency or setting" (1).

GAD-7 is a brief and validated self-administered clinical measure that assesses Generalized Anxiety Disorder symptoms and their severity (3).

High engagers include clients who had a high-level of communication with their therapist (e.g., sent 10 or more messages), completed treatment between 12-14 weeks, and completed more than 8 modules/80.0% of playlists. Based on these measures, high engagers are considered highly self-motivated and likely developed a strong therapeutic connection with their therapist.

Intake assessment is an initial tool used by mental health providers to gather information, enabling them to assess a client's needs and to identify appropriate treatment options.

Modality is the method by which care is delivered including asynchronous messaging, in-person, phone, and video conferencing.

Modules or Playlists are structured and interactive portions of the program that offer a distinct set of learning objectives that the client is expected to achieve before moving onto the next one. On average, clients are expected to complete a module or playlist on a weekly basis. LifeWorks uses the term module, while MindBeacon uses the term playlist.

Network Lead Organizations refers to six lead health service providers who work alongside community-based service providers across their regions to deliver the Ontario Structured Psychotherapy Program. NLOs consist of hospitals, community mental health agencies, large primary care teams that have the capacity to lead system building activity and supporting their Regional OSP Network. The following NLOs: CAMH, St. Joseph's, Ontario Shore, The Royal Ottawa Mental Health Centre, and WayPoint referred clients to the vendors.

Non-users are defined as those deemed ineligible or inappropriate for the program and/or prematurely withdrew before completing treatment.

PHQ-9 is a brief and validated self-administered diagnostic instrument which measures Major Depressive Disorder symptoms and their severity (4).

Rapport is "a warm, relaxed relationship of mutual understanding, acceptance, and sympathetic compatibility between or among individuals. The establishment of rapport with a client in psychotherapy is frequently a significant mediate goal for the therapist in order to facilitate and deepen the therapeutic experience and promote optimal progress and improvement" (5).

Self-referral is the act of referring oneself to a mental health provider or service after learning about the iCBT program. Self-referral can be contrasted to the act of **referral**, where a provider refers a client to another healthcare provider or service.

Service Providers refers to the organizations (i.e., LifeWorks and MindBeacon) that offer the iCBT service via their respective platforms.

Successfully discharged refers to clients who completed an exit disposition whereby an outcome was determined. Note: Successfully discharged does not necessarily mean that clients completed all the modules/playlists assigned to them (though this can be the case) but that they reached a personally motivated conclusion in the program and conveyed that to the service provider.

Synchronous communication refers to interactive real-time communication between individuals, which necessitates an immediate response. Synchronous communication in the iCBT program may occur via scheduled in-app video or audio calls.

Therapist-assisted iCBT is a form of high-intensity guided iCBT where licensed mental health professionals provide regular support for their patients by monitoring their symptoms, offering regular check-ins, and providing feedback on their homework. This form of iCBT can be contrasted to coach-assisted iCBT, where non-regulated mental health workers are trained to provide support to patients throughout the program, or unguided iCBT, where patients access a series of modules independently.

Therapists are licensed mental health professionals, which include psychologists, psychotherapists, and social workers.

Worksheets are interactive resources provided to clients to practice new skills learned in the program.

Work and Social Adjustment Scale (WSAS) is a brief, reliable, and validated measure of impaired functioning (6).

Virtual care includes the use of technology, synchronous or asynchronous, to provide and receive healthcare services. Modalities include phone calls, video conferencing, remote monitoring, asynchronous messaging (e.g., email, texting) and the use of a patient portal (7).

Erratum: † appears next to certain sample sizes which denotes a reporting error in the sample sizes due to the inclusion of two duplicates. These two duplicates were originally included in error but have been removed in this version of the report with the correct sample sizes reported.

Table of Contents

Executive Summary

PROJECT BACKGROUND

Prior to the COVID-19 pandemic, there were many barriers to accessing mental health services in Canada, including long wait times, lack of mental health services in rural areas, cost of services, shortage of mental health professionals, and stigma (8). The COVID-19 pandemic compounded these barriers by negatively impacting the mental health of Canadians and creating new barriers for people already suffering from mental illness (9). Internet-delivered Cognitive Behavioural Therapy (iCBT) offers a promising solution by addressing many of these barriers in a scalable and cost-effective manner. To support the rise in Ontarians experiencing depression and anxiety due to the COVID-19 pandemic, the Ontario government expanded virtual mental health service offerings in May 2020. One of these virtual mental health service offerings included iCBT, provided by MindBeacon and Lifeworks (10), a publicly funded therapist-assisted program available to all Ontarians primarily for the treatment of mild to moderate depression and/or anxiety-related disorders (though it is not only limited to these conditions). This report explores the program's impact at the population level on anxiety and depression to consider its long-term effectiveness in improving health outcomes.

OBJECTIVES

The purpose of the evaluation is to assess the impact of the iCBT program on the mental health and wellness of Ontarians. The three objectives are to:

1. **Describe the nature of services delivered and the client demographics of those who accessed each service.**
2. **Evaluate the effectiveness of iCBT in improving health outcomes.**
3. **Evaluate the provider and client experience, satisfaction, and acceptance of iCBT.**

METHODS

The evaluation included client and provider surveys and semi-structured interviews as well as data supplied by each service provider (LifeWorks and MindBeacon) on referral type, assessment date and outcome, client outcome measures (PHQ9, GAD 7, and WSAS where available), client sociodemographic characteristics, reach, usage, and duration of service.

KEY FINDINGS

Nature of services delivered and the client demographics of those who accessed each service

- The **LifeWorks** iCBT program required a two-step intake assessment process (a short questionnaire and conversation with a therapist), offered 10-12 modules (over approximately 10 weeks) to complete the program, and provided asynchronous (messaging) and synchronous (audio/video call) communication with the therapist. The **MindBeacon** iCBT program required a 30-minute online intake assessment questionnaire, offered 7-16 playlists (over approximately 12 weeks) to complete the program, and provided only asynchronous (messaging) communication with the therapist.
- Over **130,125† clients were provided instant access to the iCBT program** between May 2020 to September 2021, of whom clients were predominantly **self-referred**, **female**, aged **18 – 29**, identified as **White**, and had **severe symptoms of anxiety and moderately severe to severe symptoms of depression** at baseline.
- Only a **small minority of clients (8.6%) completed more than eight modules or more than 80.0% of playlists in the program.** 63.0% of users withdrew after completing the intake assessment, otherwise, most only completed one module or between 11.0-20.0% of the playlists.

Effectiveness of iCBT in improving health outcomes

- Although the iCBT program was designed for people with mild to moderate mental health disorders, **approximately one-third of clients who registered for the program presented with severe baseline anxiety or depression symptoms**. Of clients who completed the program (8.6%), 1 out of 5 clients had severe baseline PHQ-9 scores and 1 out of 3 clients had severe baseline GAD-7 scores.
- For MindBeacon and LifeWorks, the association between program completion and change in outcome measures is statistically significant and strengthened with greater program completion. **For each level of increase in program completion, there was 14.0-27.0% increased odds of clinical improvement in GAD-7 scores,** controlling for other variables. For each level of increase in program completion, there was **16.0-25.0% increased odds of clinical improvement in PHQ-9 scores**, controlling for other variables.
- **Personalized communication with and feedback from the therapist was essential** to support clients' continued engagement with the program and their mental health progress

as it facilitated the development of a connection between clients and therapists, the provision of tailored support, and made clients feel accountable to the program. However, some clients noted difficulty naturally building rapport with their therapist online and other clients preferred having the availability of both synchronous and asynchronous communication options.

- Most clients sent between 0 to 5 messages to their therapist, and only 4.3% sent 20 or more messages. **Among those with high program completion, 34.5% sent 20 or more messages.**

- Around **14.3% of clients received 20 or more messages from their therapist**, **39.5% of these patients had reductions in anxiety symptoms and 29.5% of them had reductions in depression symptoms**.

Provider and client experience, satisfaction, and acceptance of iCBT

- Clients and therapists found the content to be **acceptable, appropriate, and appealing**. Clients found the program **easy to use, useful, and engaging**. However, many clients and therapists identified limitations with the generalized format of the program, noting that it could be improved by **building options for customization** to better meet the individualized needs of clients.

- Clients and therapists valued the **free, online, self-paced format** of the program as it enhanced accessibility (by reducing geographical, financial, emotional, and time-related barriers) and supported **convenience**.

RECOMMENDATIONS

1. **Restructure the iCBT program to enable coordinated triage of clients to other health services when appropriate.** Because the program is low-barrier and enables broad reach, it has the potential to channel people into the system who may not have otherwise been able to connect. However, iCBT – as a standalone program with no formal connection to the healthcare system – results in clients who are potentially inappropriate for iCBT not being offered an alternative, more appropriate service in a timely manner. For iCBT to include a triage mechanism, the intake process should identify patients with needs that go beyond iCBT and refer them to appropriate services. To support coordinated triage, it would be beneficial to integrate the service into existing pathways of care in collaboration with physicians and allied health care providers and furthermore,

creating follow up mechanisms to ensure longevity of benefit for successfully discharged clients.

2. **Enable customization of the program's treatment protocol to align with clients' individualized needs and principles of value-based care.** Provide options and flexibility in terms of iCBT's offerings. As the data shows, there is variation in terms of the number of modules/playlists that clients need to complete in order to derive benefit – and this is dependent on the client's individualized needs.
3. **Provide clients with the option for both asynchronous (online messaging) and synchronous (telephone/video) communication**. Offering various communication modalities will enable clients to engage in therapy in ways that best support their unique communication and learning needs. The triage mechanism can further support the facilitation of clients into the service that best suits their needs.
4. **Develop standardized performance measures to support continuous monitoring and evaluation of the iCBT service in a timely manner.** When introducing new programs, develop a plan to review and course correct early and at regular intervals; services like iCBT need to iterate multiple times before they will become effective components of a mental health service strategy. This will require the development of quality metrics tracked in real-time as well as an investment in a real-time, low-cost data reporting tool that can be used to optimize provincial investments, patient and provider experience, health outcomes, and cost per capita. The type, quality, and timing of data should be specified in the Request for Proposal.
5. **Make broad accessibility a priority feature of all mental health services.** The evaluation findings demonstrated that certain structural barriers of in-person therapy (travel, cost, time-demand, etc.) made it challenging for clients to access the mental health services they needed. Because the iCBT program removed these particular barriers, clients were able to successfully access these necessary services. Removing or reconciling these structural barriers for other mental health services where appropriate is needed to support broad accessibility. Accessibility can be further improved by integrating cultural diversity and consideration of individuals with different physical and cognitive needs into the design of mental health programs.

1. BACKGROUND

1.1 CONTEXT

There are many existing barriers to accessing mental health services in Canada, including long wait times, geographical inequities, cost of services, shortage of mental health professionals, and stigma (8). Furthermore, the COVID-19 pandemic has negatively impacted the mental health of Canadians, creating new barriers for people already suffering from mental illness, with many seeing their stress levels double (9). Collectively, these barriers reduce access to care for those who need it most. Internet-delivered Cognitive Behavioural Therapy (iCBT) is a promising solution that can address many of these barriers in a scalable and cost-effective manner.

To support the rise in Ontarians experiencing depression and anxiety due to the COVID-19 pandemic, the Ontario government made a substantial investment to expand virtual mental health service offerings in May 2020. One of these virtual mental health service offerings included iCBT, provided by MindBeacon and LifeWorks (10), and is a publicly funded therapist-assisted program available to all Ontarians primarily for the treatment of mild to moderate depression and/or anxiety-related disorders (though it is not only limited to these conditions). The iCBT program offered by MindBeacon and LifeWorks (the two different service providers) is predominantly designed as a client self-referral program supported by therapists and is available in English and French (10). As a general psychosocial intervention, iCBT can be an effective treatment for mental health conditions including depression, social anxiety, panic disorders, phobias, addiction and substance use disorders, bipolar disorder, and obsessive-compulsive disorder.

iCBT has shown to be cost-effective both for clients (e.g., cost for travel, cost for traditional 1:1 therapy) and for the health system and included the following assumptions: clients would complete the program over 8 weeks, the program would be entirely self-referral, for individuals with mild to moderate anxiety or depression at baseline and would be provided via a central portal (11). The health technology assessment synthesis does not provide information on dropout rates, had relatively small sample sizes (less than 1000 individuals), only included people with mild to moderate anxiety or depression, and had previous exposure to treatment (medication or psychotherapy), so it is unclear if the assumptions of cost-effectiveness hold true for this iCBT program. However, the key drivers of cost-effectiveness are likely to be overall cost of the program, proportion paid for intake versus each program component completed, and dropout rates (11).

As the iCBT program continues to be offered during the pandemic, an assessment of the program's impact at the population level on anxiety and depression is needed to understand its long-term effectiveness in improving health outcomes. An understanding of the program's delivery process and uptake, including its client population, and the experience of clients and providers will help identify elements of the program that can be optimized and improved to provide value to all Ontarians in need of these services beyond the pandemic.

1.2 PURPOSE AND OBJECTIVES

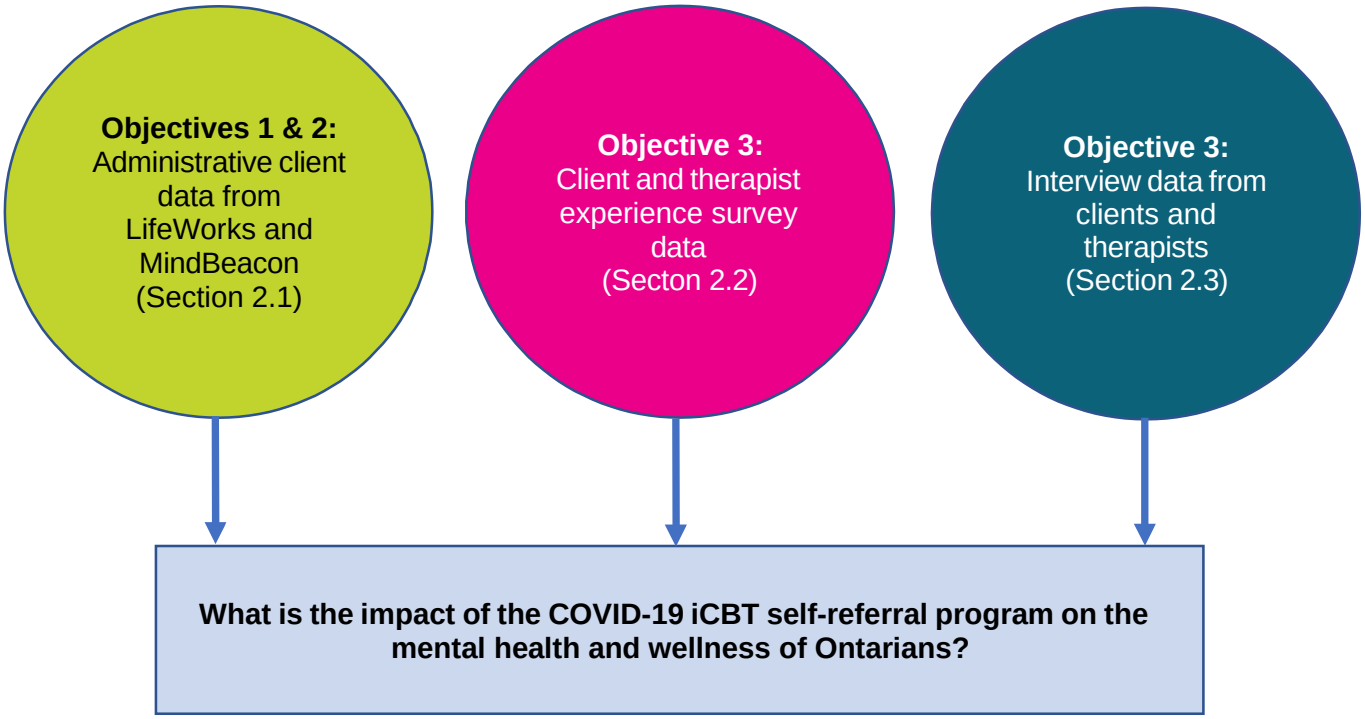
The purpose of the evaluation is to assess the impact of the iCBT program on the mental health and wellness of Ontarians. The three objectives are to:

1. **Describe the nature of services delivered and the client demographics of those who accessed each service**. Clients may also include: 1) providers accessing the service for their own use; 2) individuals not accessing the service (hereafter referred to as 'non-users'), defined as those deemed ineligible or inappropriate for the program and/or prematurely withdrew before completing treatment
2. **Evaluate the effectiveness of iCBT in improving health outcomes** from PHQ9, GAD 7, and WSAS scale data (of those who were able to access the service) and examine any service platform differences.
3. **Evaluate the provider and client experience, satisfaction, and acceptance of iCBT as a service for mild to moderate depression and/or anxiety-related disorders and examine service platform differences.** Note: provider experience included their experience delivering the service and/or receiving the service (where applicable).

The results provide insight into how the COVID-19 investments in iCBT had an impact on the mental health and wellness of Ontarians and contribute to the body of evidence on the use of iCBT as a clinical intervention.

2. METHODOLOGY

This final report is based on findings from data collected from the following sources:



2.1 ADMINISTRATIVE CLIENT DATA FROM LIFEWORKS AND MINDBEACON

Administrative data was extracted and provided by LifeWorks and MindBeacon for the period of May 2020 to September 2021 for all clients that had registered for the iCBT program through the respective service provider. Data was cross-sectional and thus provided a snapshot of clients for the pre-specified period. Data provided sociodemographic characteristics of clients that had registered through either LifeWorks or MindBeacon and select scale outcome measures including PHQ-9 and GAD-7 were collected continuously by both service providers to monitor client improvement through the iCBT program. Also, timestamps that aligned with key program milestones were collected in the administrative data and were used to map out a pathway for each respective program. There were two aims of the analysis of the administrative data: 1) to understand the nature of services delivered and client makeup of the iCBT program; and 2) to evaluate the short-term effectiveness of the iCBT program in improving mental health outcomes. Descriptive and bivariate analyses were conducted via Stata® to derive insights about the populations accessing iCBT during the pre-specified period. Stratification and multivariate analyses using ordered logistic regression models were conducted to create program pathways

and test the association between program completion and change in scale outcome measures, controlling for select covariates.

2.2 CLIENT AND PROVIDER EXPERIENCE SURVEY DATA

A subset of clients and therapists using or delivering iCBT through LifeWorks or MindBeacon responded to a survey. Surveys explored client and therapist experiences in terms of acceptance, appropriateness of the program for addressing mild to moderate depression and/or anxiety-related disorders, feasibility, functionality, satisfaction, and usability. The overall aim was to understand the experiences of clients and therapists utilizing or delivering the iCBT program. To supplement the service provider demographic data, participant demographics were collected through the survey, including socioeconomic status, technological comfort, and access. Participants who consented to participate in the survey completed the questionnaire via REDCap™. Responses were stratified by service provider and respondent type (i.e., client or therapist). Descriptive and bivariate analyses were conducted via Stata® to derive insights about the experiences of clients utilizing and therapists delivering iCBT.

2.3 INTERVIEW DATA FROM CLIENTS AND PROVIDERS

Semi-structured interviews were conducted with clients and therapists using or delivering iCBT through LifeWorks or MindBeacon. Interviews explored client and therapist experiences in terms of acceptance and satisfaction, the fit of the program for addressing mild to moderate depression and/or anxiety-related disorders, as well as enablers and barriers of using/delivering iCBT. Interviews also focused on gaining insight into module/playlist completion and communication between client and therapist. The overall aim was to understand who derived benefit and why. Participant demographics were also collected during interviews. Interviews were audio-recorded, transcribed, and analyzed using an inductive approach to thematic content analysis to identify common themes and patterns of meaning across the data in relation to key objectives.

3. RESULTS

3.1 DESCRIPTIVE CHARACTERISTICS

SERVICE PROVIDER PROGRAM FEATURES

While both service providers adhered to the general principles of iCBT, LifeWorks and MindBeacon differed in structure, components, and delivery of the iCBT program. Table 1

provides a breakdown of the structural differences between the program features of both service providers.

Table 1. Service providers' program features.

Program Features	LifeWorks AbilitiCBT	MindBeacon TAiCBT
Intake Assessment Process	**2-Steps** • 5-7-minute online questionnaire • Connect with therapist to complete 1-on-1 intake assessment	**1- Step** • 30-minute online intake questionnaire
Program Duration	**12 Modules** • Estimated 10 weeks to complete	**Ideally between 7 to 16 Playlists** • Playlists assigned are condition- and individual-specific • Estimated 12 weeks to complete
Type of Therapist Assistance (check-in and follow-ups)	• **Asynchronous** (in-app messaging) • **Synchronous*** (scheduled in-app video and/or audio calls) **Mandatory synchronous call with therapist upon entry to the program, thereafter follow-up modality mutually decided upon by client and therapist.*	• **Asynchronous** (in-app messaging)

LifeWorks

The LifeWorks AbilitiCBT program was delivered in successive modules after registration, starting from intake assessment to Module 12 (Note: Modules 11 and 12 were only offered to clients that were assessed for trauma). All registered clients were provided access to Module 1 regardless of whether they were accepted into the program. For clients to be accepted into the LifeWorks AbilitiCBT program, they were required to complete a brief online questionnaire followed by an intensive 1-on-1 intake assessment with a therapist over the phone to assess eligibility and appropriateness for the program. Once program fit was assessed, clients were assigned a treatment plan with access to Module 1 and would only receive access to the following Module once they completed the prior one. Please see Table 2 in Appendix A for more detail on LifeWorks' program content by module.

MindBeacon

The MindBeacon therapy-assisted program (TAiCBT) was tailored for each client based on their mental health condition at assessment and on individual-specific needs. The MindBeacon TAiCBT program's intake assessment was delivered through a self-administered 30-minute online intake assessment survey that assessed clients for eligibility and appropriateness for iCBT. Clients were assigned a unique number of playlists based on the mental health protocol assigned to them at assessment with access to complementary playlists based on their changing needs through the duration of the program at the therapist's discretion. Playlists were not provided in any specific order and each client was provided with a customized set of playlists (condition- and individual-specific set of playlists). MindBeacon collected data on the number of playlists completed by each client but not the number of playlists assigned to each client. Thus, a crude playlist completion rate was calculated using the ideal number of playlists related to the client's mental health diagnosis. This crude measure may overestimate program completion rate for MindBeacon clients as it does not incorporate individual-specific playlists into the total number of components assigned to each client. Please see Table 3 in Appendix A for more detail on diagnosis-specific protocols by MindBeacon.

ADMINISTRATIVE DATA

A total of 130,125† clients were included in the administrative data for both service providers. Table 4 provides a breakdown of clients by service provider.

Table 4. Clients by service provider.

Clients	N=86
LifeWorks	N=56,769
MindBeacon	N=73,356†
TOTAL	**N=130,125†**

In terms of client demographic characteristics from administrative data, there are large amounts of missing data across variables for both service providers (up to 77.0%). Most clients were female (75.5% LW; 61.5% MB). While there was considerable missing age-related data, clients who were 18-28 years of age represented the majority (8.2% LW; 23.6% MB). In terms of race and ethnicity, White clients represented the largest racial group (24.1% LW; 40.1% MB). Majority of clients required the program to be provided in English (~99.0%), while less than 1.0% of clients required French services for the program. Around 1 out of 10 clients were health care workers (12.8% LW; 10.6% MB). Some clients were post-secondary students (34.7% LW; 13.0% MB). Most clients (>99.0%) were self-referred while <1.0% of clients were referred through hospitals or Network Lead Organizations (NLOs). NLOs refers to six lead health service providers who work alongside

community-based service providers across their regions to deliver the Ontario Structured Psychotherapy Program. NLOs consist of hospitals, community mental health agencies, large primary care teams that have the capacity to lead system building activity and supporting their Regional OSP Network. The following NLOs: CAMH, St. Joseph's, Ontario Shore, The Royal Ottawa Mental Health Centre, and WayPoint referred clients to the vendors. Around half of the clients lived in large to urban population centres with over 100,000 people (65.0% LW; 40.8% MB). Please see Table 5 in Appendix B for a detailed breakdown of client demographic characteristics by service provider.

SURVEY DATA

A total of 202 surveys were completed. Table 6 provides a breakdown of the participants by role and service provider.

Table 6. Survey participants by role and service provider.

Client Surveys	**N=86**
LifeWorks	N=36
MindBeacon	N=50
Therapist Surveys	**N=116**
LifeWorks	N=63
MindBeacon	N=53
TOTAL	**N=202**

Clients

Client survey characteristics data showed that most clients were female (81.0% LW; 82.0% MB), predominantly White (75.0% LW; 78.0% MB), between 18-50 years of age (78.0% LW; 64.0% MB) and educated with a college degree/diploma or undergraduate degree (47.0% LW; 74.0% MB). Most clients (69.0% LW; 78.0% MB) were self-referred to the program and almost all (100.0% LW; 98.0% MB) had reliable access to the program on a private device. In line with the service offerings, all clients (100.0%) were comfortable speaking English with their therapists. Client survey respondents consisted mostly of individuals who were comfortable/very comfortable with written communication (94.0% LW; 92.0% MB) and were advanced or expert users of technology (83.0% LW; 84.0% MB). Most clients were "high-engagers" (please refer to operational definitions for more information), with the majority (63.0% LW; 64.0% MB) completing 8 or more modules/playlists. Please see Table 7 in Appendix B for more detail on client survey demographic data.

Therapists

Therapist survey characteristics data showed that most were social workers (87.0% LW; 91.0% MB), identified as female (90.0% LW; 89.0% MB), and had been delivering iCBT for 4-11 months (63.0% LW; 58.0% MB). Their professional experience varied between less than one year to more than 16 years. Most therapists (94.0% LW; 85.0%) identified themselves as advanced/expert users of technology. All therapists (100.0%) were able to support clients with a range of mental health issues, with most (67.0% LW; 74.0% MB) serving large or urban sized communities with over 100,000 people. In line with the service offerings, almost all therapists (95.0% LW; 100.0% MB) were most comfortable speaking English with their clients. Please see Table 8 in Appendix B for more detail on therapist survey demographic data.

INTERVIEW DATA

A total of 30 interviews were conducted. Table 9 provides a breakdown of the participants by role and service provider. Note: due to lack of participation from non-users, we were unable to collect data from this group.

Table 9. Interview participants by role and service provider.

Client interviews	**N=20**
LifeWorks	N=10
MindBeacon	N=9
Both (LifeWorks and MindBeacon)	N=1
Therapist interviews	**N=10**
LifeWorks	N=5
MindBeacon	N=5
TOTAL	**N=30**

Clients

Client interviewee characteristics data showed that most LifeWorks clients (60.0%) and MindBeacon clients (55.6%) were female, between 20-65 years of age (100.0% LW; 88.9 MB%), and educated with a college degree/diploma or undergraduate degree (70.0% LW; 77.7% MB). All MindBeacon clients identified as White whereas half of LifeWorks clients identified as White, 30.0% identified as mixed race, 10.0% as South Asian, and 10.0% as Indigenous. There was one client who used both LifeWorks and MindBeacon and this dual user was middle-aged with a high level of educational attainment. Further demographic characteristics of this dual user are not included to ensure client privacy and confidentiality. All clients (100.0%) were self-referred to the program and had reliable access to it on a private device. In line with the service offerings, all clients (100.0%) were comfortable speaking English with their therapists. Client interviewees consisted mostly of individuals who were comfortable/very comfortable with written

communication (90.0% LW; 100.0% MB) and were advanced or expert users of technology (60.0% LW; 88.9% MB). The dual user identified themself as an expert user of technology and was very comfortable with written communication. The majority of client interviewees were high-engagers, with all LifeWorks clients (100.0%) completing 8 or more modules, most MindBeacon clients (77.8%) completing 12 playlists, and the client who had used both completing 10 LifeWorks modules and 12 MindBeacon playlists. Please see Table 10 in Appendix B for more detail on client interviewee demographic data.

Therapists

Therapist interviewee characteristics data showed that most of both LifeWorks therapists (60.0%) and MindBeacon therapists (100.0%) were social workers, identified as female (100.0% LW; 80.0% MB), and had been delivering iCBT for 4-11 months (80.0% LW, 80.0% MB). Their professional experience varied between less than one year to more than 16 years. Most LifeWorks therapists (80.0%) and all MindBeacon therapists (100.0%) identified themselves as advanced/expert users of technology. All therapists (100.0%) were able to support clients with a range of mental health issues, with most (80.0% LW; 100.0% MB) serving large or urban sized communities with 100,000+ people. In line with the service offerings, all therapists (100.0%) were comfortable speaking English with their clients. Please see Table 11 in Appendix B for more detail on therapist interviewee demographic data.

Please see Appendix C for survey consent forms and questionnaires and Appendix D for interview consent forms and interview guides.

3.2 PROGRAM PATHWAY

Completion and Abandonment Rates

Around 10.0% (n=5,529) of LifeWorks clients completed 8 or more program modules and more than 58.0% (n=32,781) of clients did not complete any modules beyond the intake assessment.

Approximately 8.0% (n=5,639) of MindBeacon clients completed more than 80.0% of the TAiCBT program, while more than 68.0% (n=49,561) of clients did not complete any playlists.

The abandonment rate of LifeWorks' AbilitiCBT was low between client registration and completing an intake assessment with a therapist. The **highest rates of abandonment were seen between intake assessment and Module 2** as many clients did not progress beyond

Module 2 and onwards. **Between Module 8 to 10, abandonment rates stabilized with a core group of clients** showing a high level of adherence to the program. Modules 11 and 12 were only assigned to clients that required trauma support, thus there was a large drop off (99.0%) between Module 10 and 11. Please see Figure 1 in Appendix E for LifeWorks abandonment rates between each program component. Due to the non-successive nature of MindBeacon's program, we cannot draw strong conclusions on the abandonment rate between each program component. However, it can be broadly stated that 38.7% of MindBeacon clients (n=28,385) provided consent to start treatment, and like LifeWorks clients, around 7.6% of MindBeacon clients (n=5,639) completed more than 80.0% of the program.

Out of 130,125† total people who registered for the iCBT program, around 30.6% (n=39,763) were deemed inappropriate or ineligible during the early stages of the program. Around 69.4% (n=90,364) were deemed appropriate or eligible and continued on through program components with varying levels of drop out until the end of the program. The intake assessment component was a pivotal point which decided overall eligibility, appropriateness, and fit in the program. Many clients withdrew or became inactive starting at intake assessment until early stages of the program's respective components (e.g., Module 1 or 1.0-10.0% of ideal playlists). **Around 37.0% (n=47,417) progressed beyond the intake assessment.**

The large number of dropouts during the early stages of the iCBT program are comparable to the dropout rates across multiple iCBT studies in a recent review of self-directed technology-based services for adults with mental health issues (12). Moreover, a review comparing iCBT versus face-to-face CBT found dropout rates to be similar although more studies are required for confirmation (13). During treatment, clients withdrew from the program or were inactive on the platforms (45.5% LW; 21.4% MB). The therapist interviews provide plausible insights on this topic. Overall, **the completion rate for the program was between 8.0-10.0% of clients (n=11,168) out of all clients that had originally registered for the program.** Completion rates align with previous literature that measured completion of similar iCBT programs showing substantial variability in program completion from 11.0-100.0% (14). Please see Tables 12-13 below for program completion rates for both service providers and refer to this link to see MindBeacon and LifeWorks program pathway maps.

Table 12. LifeWorks clients' program completion data.

LifeWorks AbilitiCBT program completion rate (including all clients)	n (%)
No Intake assessment or modules completed	1,138 (2.0%)

Completed Intake assessment	55,631 (98.0%)
Completed Module 1	23,988 (42.3%)
Completed Module 2	13,980 (24.6%)
Completed Module 3	10,792 (19.0%)
Completed Module 4	9,208 (16.2%)
Completed Module 5	8,170 (14.4%)
Completed Module 6	6,817 (12.0%)
Completed Module 7	6,039 (10.6%)
Completed Module 8	5,529 (9.7%)
Completed Module 9	5,067 (8.9%)
Completed Module 10	4,591 (8.1%)
Completed Module 11	43 (less than .1%)
Completed Module 12	35 (less than .1%)

Table 13. MindBeacon clients' program completion data.

MindBeacon TAiCBT program completion rate (including all clients)	n (%)
No playlists completed	49,561 (67.6%)
Between 1.0-10.0% of ideal playlists completed	1,716 (2.3%)
Between 11.0-20.0% of ideal playlists completed	4,368 (6.0%)
Between 21.0-30.0% of ideal playlists completed	2,729 (3.7%)
Between 31.0-40.0% of ideal playlists completed	2,571 (3.5%)
Between 41.0-50.0% of ideal playlists completed	1,803 (2.5%)
Between 51.0-60.0% of ideal playlists completed	1,996 (2.7%)
Between 61.0-70.0% of ideal playlists completed	1,470 (2.0%)
Between 71.0-80.0% of ideal playlists completed	1,505 (2.1%)
Between 81.0-90.0% of ideal playlists completed	1,232 (1.7%)
Between 91.0-100.0% of ideal playlists completed	1,189 (1.6%)
Over 100.0% of ideal playlists completed	3,218 (4.4%)

The administrative data and interview data provided insight on completion and abandonment for clients in the iCBT program as well as plausible reasons for withdrawal or inactivity, respectively. The calculation of program **completion and abandonment rates included intake assessment for the LifeWorks program** as it was viewed as an intensive synchronous component of the AbilitiCBT program to assess program fit, mental health condition, and treatment plan for each client. Furthermore, given the **non-successive nature of MindBeacon playlists and the crude calculation of playlist completion rates that may have overestimated program completion,**

abandonment rates for MindBeacon clients between each program component were not calculated.

Therapist Insights on Withdrawal or Inactivity

While non-users (specifically those who prematurely withdrew before completing treatment) did not participate in the evaluation, therapist interviewees provided possible reasons for inactivity and/or withdrawal among this group based on their informed perspectives (i.e., their interactions with these clients prior to dropout/inactivity). Reasons for withdrawal or inactivity included:

1. **Mandated participation** for clients who were referred to the program as opposed to voluntary, self-motivated participation of self-referred clients.
2. **Personal reasons** (irrespective of the platform), such as competing life priorities, lack of time, and preference for in-person therapy.
3. **Misaligned expectations** (e.g., expecting "live therapy" as opposed to guided therapy).
4. **Different objectives** (e.g., some clients enroll only for the purpose of accessing and obtaining a result from the scale outcome measures and dropout afterwards).
5. **Change in mental health needs and preferences** through the course of the program. Clients may withdraw before completing the program because they no longer feel a need to continue. As one therapist commented:

> "I know that sometimes a few people come in and they start a few readings, and then they are like, 'I think I get it. … I am going to go do my meditation. I am going to go do my exercise'. … the first few messages, they say, 'This is really, really what I needed', and then they just drop away. They don't communicate again, or they just never log onto the platform." HCP019, MindBeacon

6. **Forgetting about their enrolment** in the program by the time they were assigned to a therapist.

Factors Influencing Withdrawal or Inactivity

1. **Therapist connection:** having a rapport and connection with one's therapist is key to supporting retention. However, this can be difficult to build through text-based modalities alone.
2. **Free, non-committal service:** some therapists commented that withdrawal or inactivity may happen because it is a free online service, which makes it non-committal.

3. **Lengthy information-heavy intake assessment:** MindBeacon therapists noted that some clients found the intake assessment to be lengthy and frustrating. Although no client interview respondents identified the intake assessment as a barrier to engagement, it is important to note that client interview respondents were highly self-motivated.
4. **Front-end information overload:** Although the introductory psychoeducational material may be useful for some clients, it might act as a barrier to engagement for others. As one MindBeacon therapist commented:

> "I think the engagement has a lot to do as well with the front end of how we layer our program and communicate our program to clients overall. ... One is I think sometimes folks really want support now … and having to read a bunch of information about things they may already be knowledgeable about is slightly frustrating and disheartening ... Then the second part about that is … unsolicited advice can actually put people's backs up, well, offloading all this psychoeducational material onto people right away, without knowing if they would even find it helpful or not is … I think it puts a bit of a barrier into people getting connected past the readings". HCP020, MindBeacon

Program Completion and Client Characteristics

In terms of characteristics of those accessing the program, **the majority of client interview respondents were self-motivated, high engagers.** Among interview respondents, **all LifeWorks clients completed eight or more modules** and **over three-quarters (77.8%) of MindBeacon clients completed 12 playlists.**

- Client interview respondents were intrinsically driven to seek support to address their mental health challenges. Many took the time to self-refer after learning about the program through their social networks/provider or found the program on their own through self-directed online searches.

> "What kept me going to the end was I wanted to get better, so I wanted to learn as much as possible to move forward and work on whatever I needed to work on to give away the problems that I was dealing with." P013, MindBeacon

Overall, the administrative service provider data provided insights on program completion and client characteristics. Clients assessed for generalized anxiety disorder or depression represented the highest proportion of mental health conditions accessing and completing

the iCBT program. Due to many clients being self-referred, there was a wide distribution of baseline anxiety and depression in the program.

- For both service providers, **clients were most commonly assessed at intake for generalized anxiety disorder (33.1% LW; 16.2% MB) and depression (8.7% LW; 13.2% MB).** Across Canada, both mental health issues are the most common psychiatric disorders associated with the highest burden of disability. Some estimates suggest that 40.0% of Canadians will need some form of treatment for anxiety or depression in their lifetime (16).
- For both service providers, **clients with generalized anxiety disorder constituted the majority of those completing iCBT (66.6% LW; 33.6% MB), followed by those with depressive symptoms (15.0% LW; 35.1% MB).** Figures 2 and 3 below show a detailed breakdown of mental health condition by module/playlist completion for both service providers.
- To a lesser extent, both service providers had clients with PTSD and trauma. Although these clients represented a small subset of the total population for both service providers, they had higher levels of program completion for MindBeacon (18.2% of clients with PTSD who completed more than 100.0% of ideal playlists). Completion rates for clients with PTSD and trauma are not currently available in extant literature, but iCBT has been previously shown to be effective in treating trauma-related symptoms (17).
- Approximately 33.6% (n=43,792) of clients registered for the iCBT program had mild to moderate levels of anxiety at baseline. Of clients who completed the program (over 8 modules or more than 80.0% of playlists), **approximately 49.1% (n=5,488) were clients with mild to moderate baseline anxiety.** Please see Figures 4 and 5 below for more detail.
- Approximately 28.2% (n=36,711) of clients registered for the iCBT program had severe levels of anxiety at baseline. Of clients who completed the program (over 8 modules or more than 80.0% of playlists), **approximately 36.0% (n=4,018) were clients with severe baseline anxiety.** Please see Figures 4 and 5 below for more detail. It should be noted that baseline severe anxiety was considerably higher in iCBT clients as compared to US population estimates, which were around 18.0% of adults with anxiety experienced severe symptoms of anxiety (18).

- Approximately 29.5% (n=38,343) of clients registered for the iCBT program had mild to moderate levels of depression at baseline. Of clients who completed the program (over 8 modules or more than 80.0% of playlists), **approximately 45.5% (n=4,970) were clients with mild to moderate baseline depression.** Please see Figures 6 and 7 below for more detail.
- Approximately 36.1% (n=46,929) of clients registered for the iCBT program had moderately severe to severe levels of depression at baseline. Of clients who completed the program (over 8 modules or more than 80.0% of playlists), **approximately 44.5% (n=4,965) were clients with moderately severe to severe baseline depression.** Please see Figures 6 and 7 below for more detail. It should be noted that baseline severe depression was considerably higher in iCBT clients as compared to US population estimates, which were around 15.0% of adults with depression had severe symptoms of depression (19).
- For both service providers, the percentage of clients with severe baseline symptoms of anxiety or depression was high in comparison to general population estimates. However, baseline severity in anxiety and depression was only assessed using two validated patient-reported outcome measures. Although the PHQ-9 and GAD-7 are accurate screening tools, they are not diagnostic nor are they comparable to a comprehensive diagnosis that considers individual factors using multiple measurements on a variety of assessment scales (20–22). Thus, **severity of anxiety and depression would require confirmation with a comprehensive diagnosis.**
- While program completion rates were equal between clients with mild to moderate baseline depression (44.5%) and clients with moderately severe to severe baseline depression (44.5%), we cannot make conclusive generalizations about iCBT fit for people with severe depression. As presented in previous research, iCBT is best suited for mild to moderate mental health issues. While clients with severe symptoms can benefit from iCBT, it may be dependent on numerous factors such as case complexity, client characteristics, individual motivations, and response to treatment to consider the overall effect of iCBT (23,24).
- When examining client communication with therapists, there was more variation in the number of messages sent by clients that completed more than 3 modules or more than 30.0% of playlists. **For clients that completed more than 3 modules or more than 30.0% of playlists, around 1 out of 3 clients sent more than 16 messages to their**

therapist (29.9% LW; 37.1% MB). Please see Figures 16 – 45 in Appendices F – T for more detail on program completion.

Figure 2. LifeWorks – Mental health condition by module completion

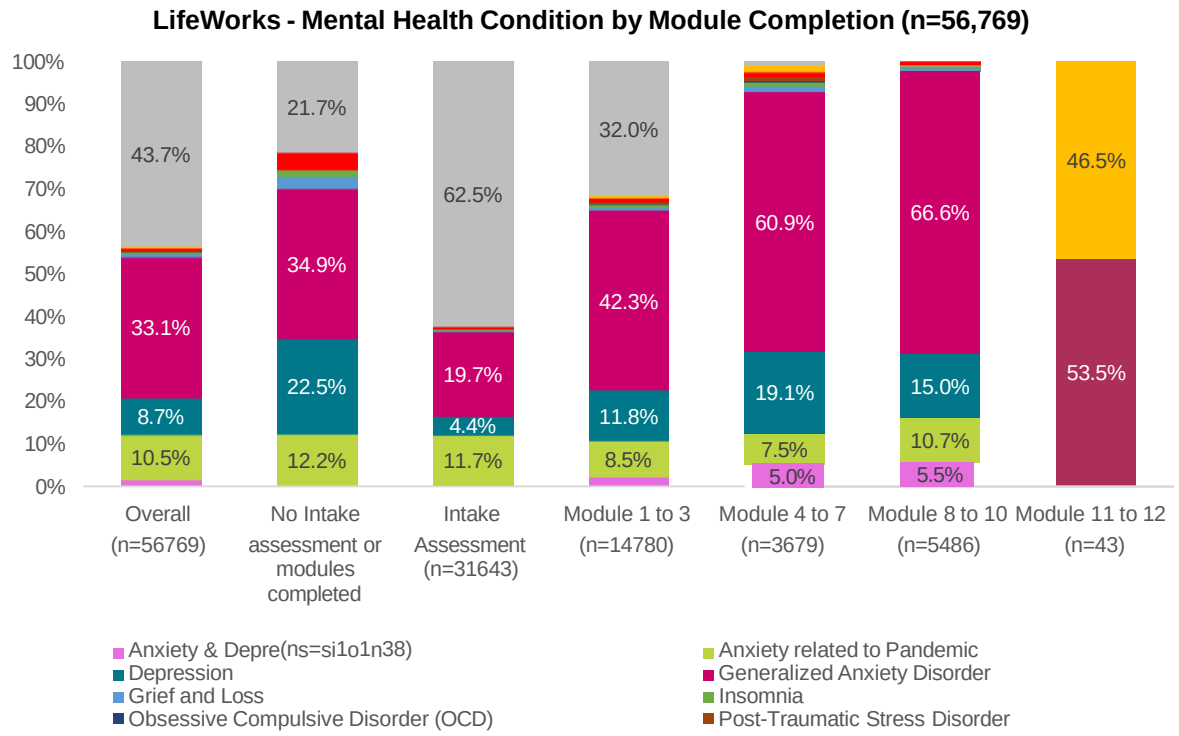


Figure 3. MindBeacon – Mental health condition by playlist completion.

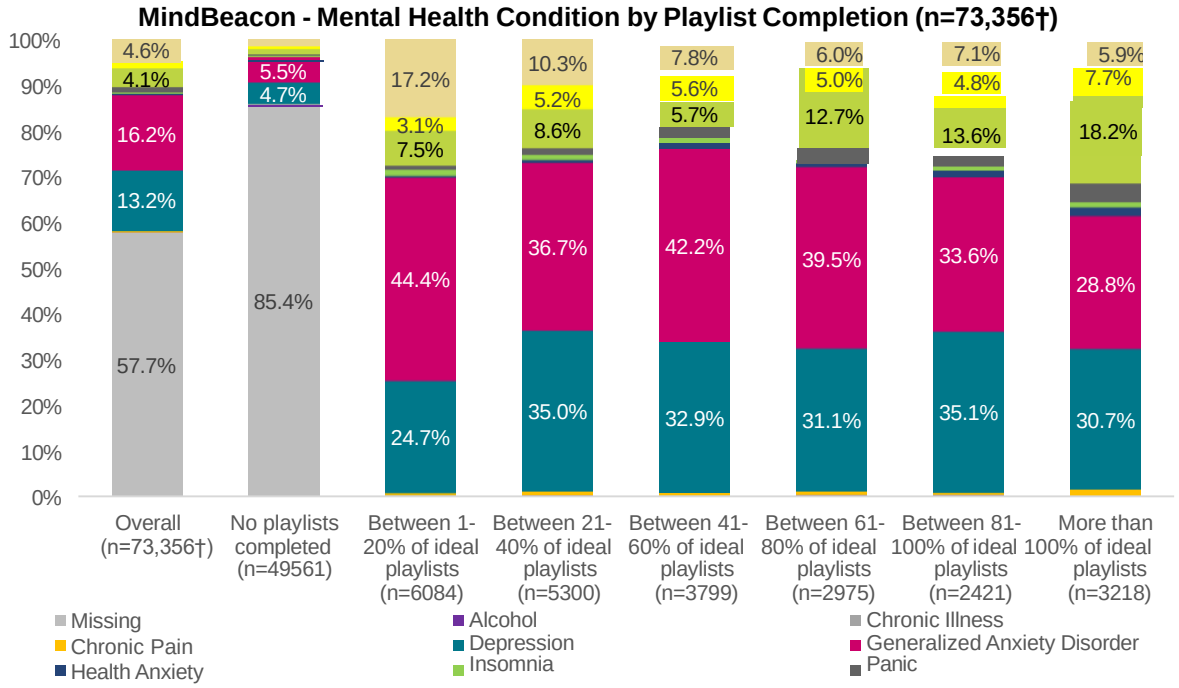


Figure 4 LifeWorks – Baseline anxiety score by module completion.

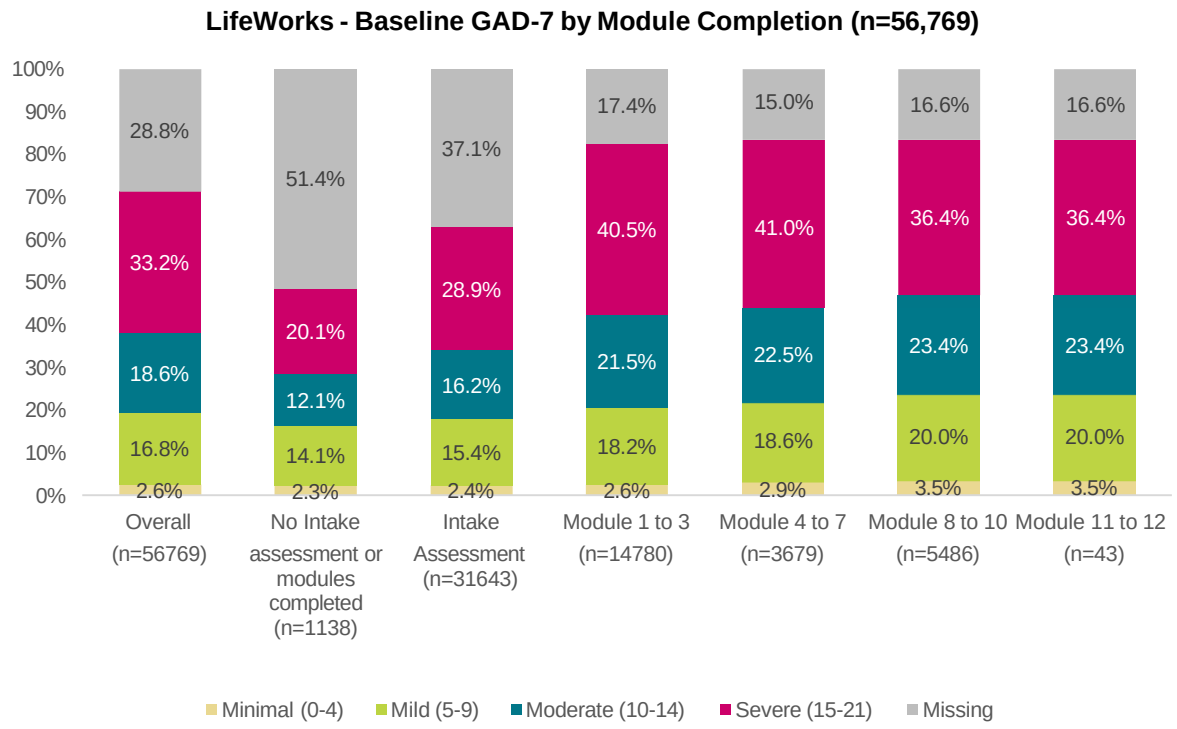


Figure 5 MindBeacon – Baseline anxiety score by playlist completion.

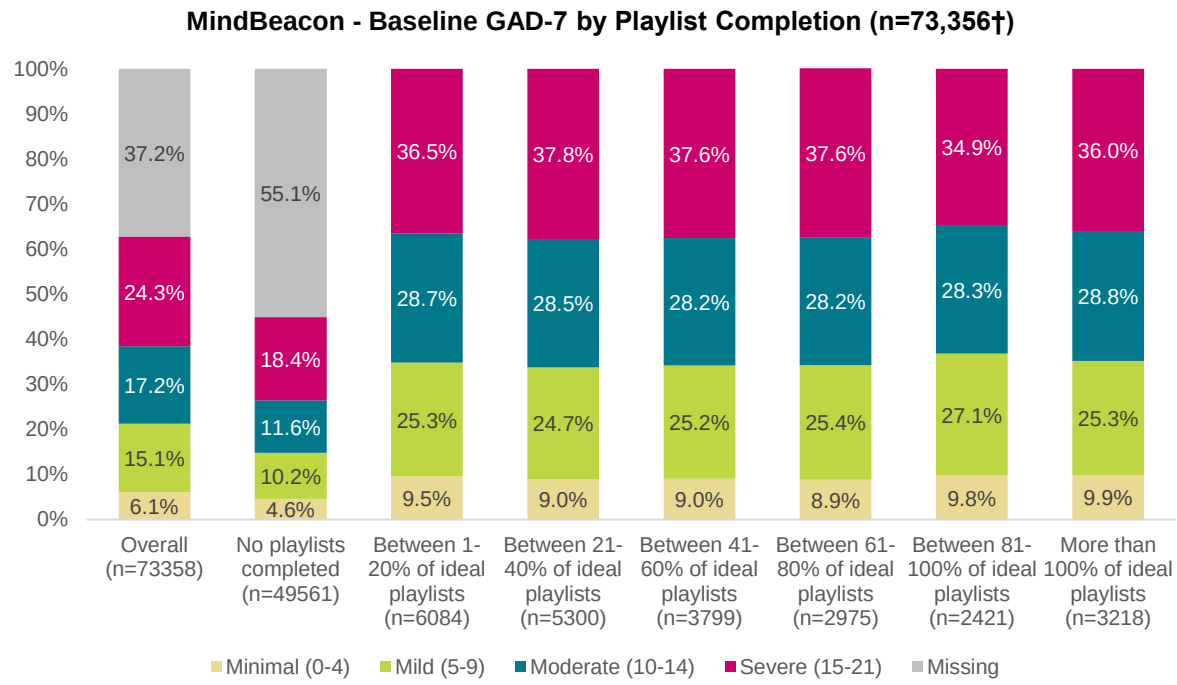


Figure 6 LifeWorks – Baseline depression score by module completion.

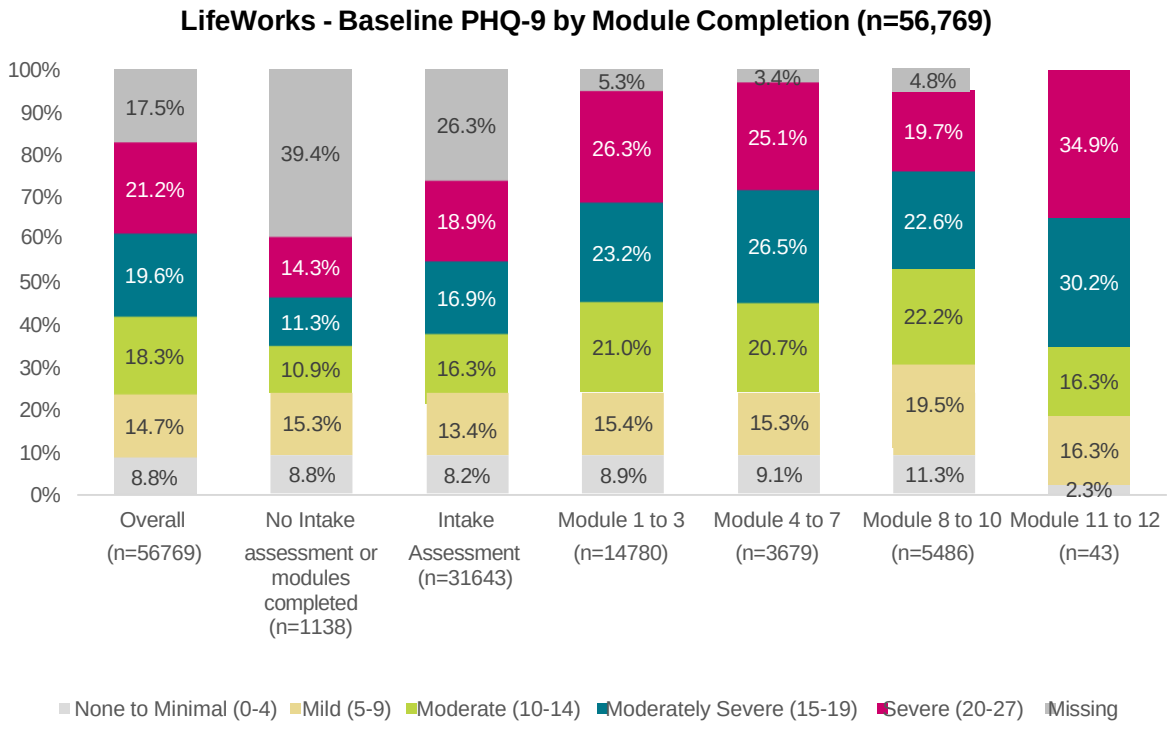


Figure 7 MindBeacon – Baseline depression score by playlist completion.

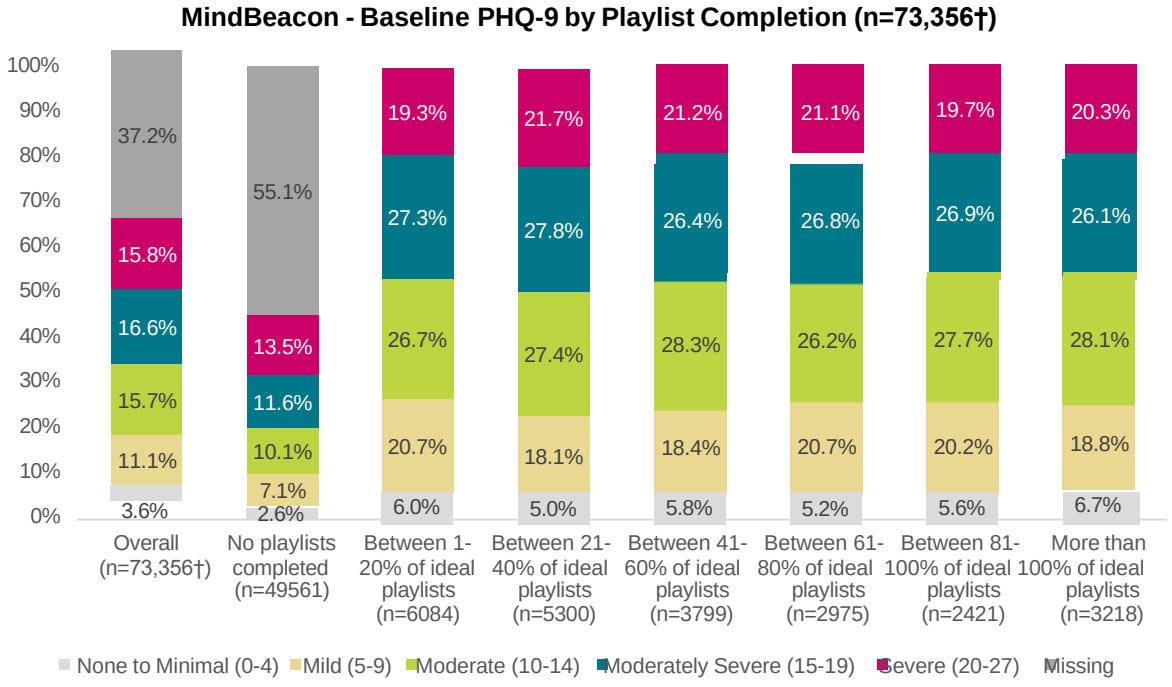


Figure 8 LifeWorks – Client messages by module completion.

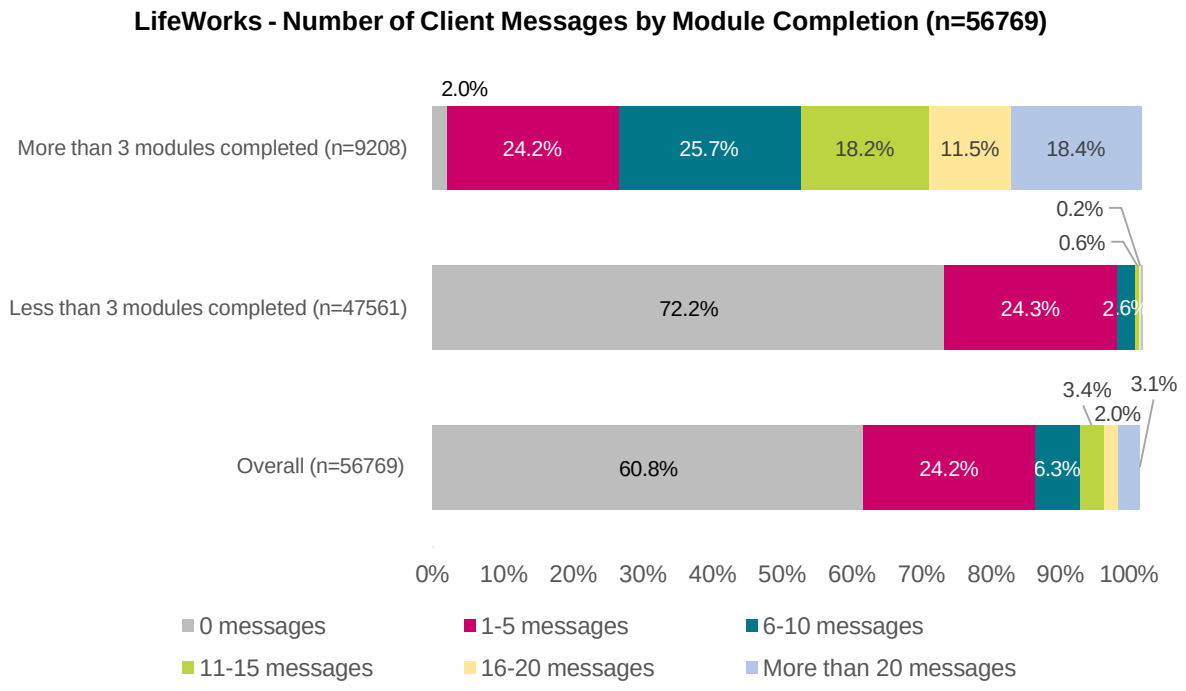


Figure 9 MindBeacon – Client messages by playlist completion.

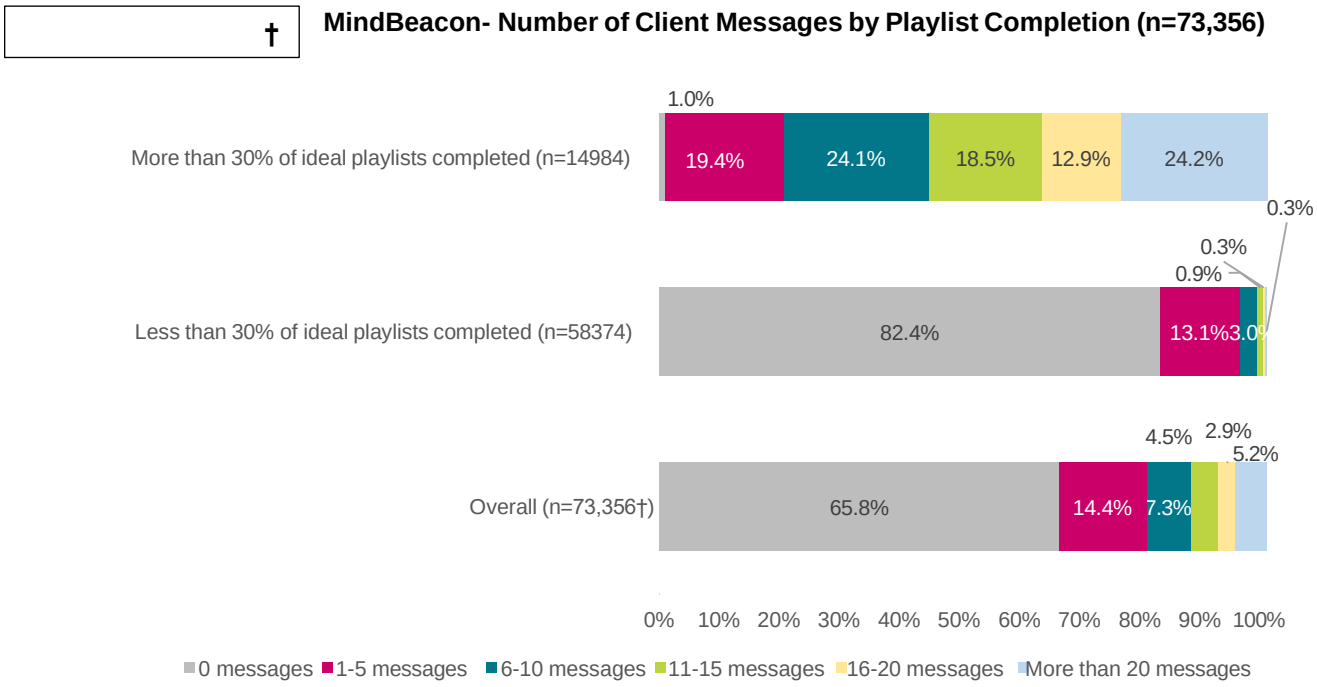


Figure 10 LifeWorks – Therapist messages by module completion.

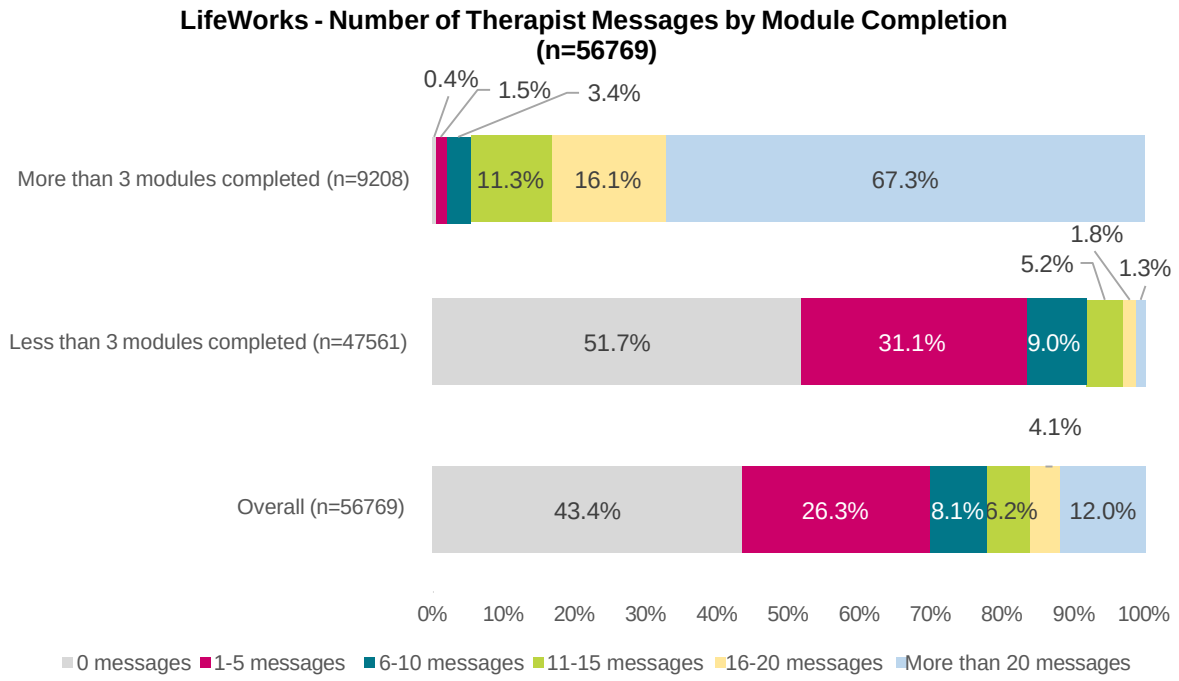


Figure 11 MindBeacon – Therapist messages by playlist completion.

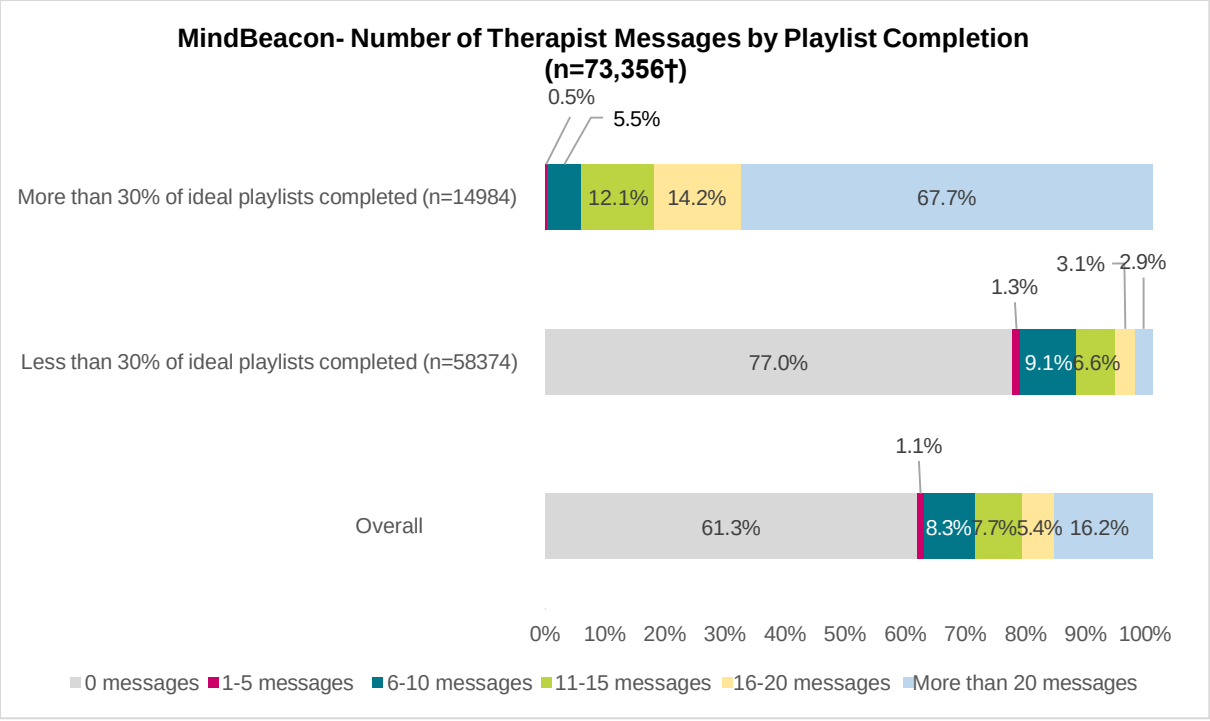


Figure 12 LifeWorks – Change in GAD-7 by module completion.

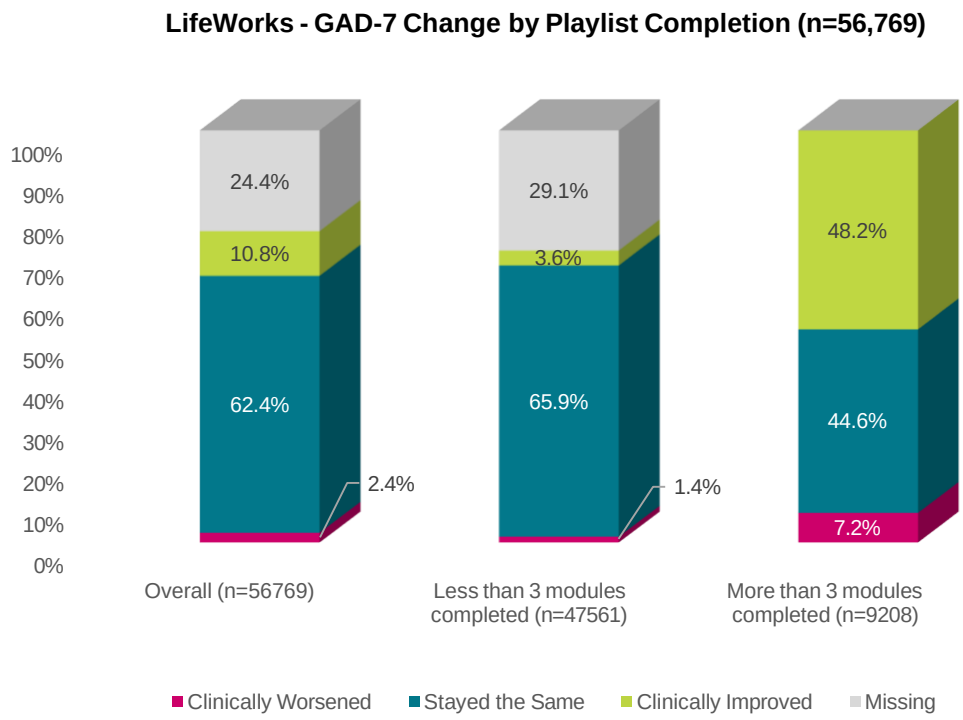


Figure 13 MindBeacon – Change in GAD-7 by playlist completion.

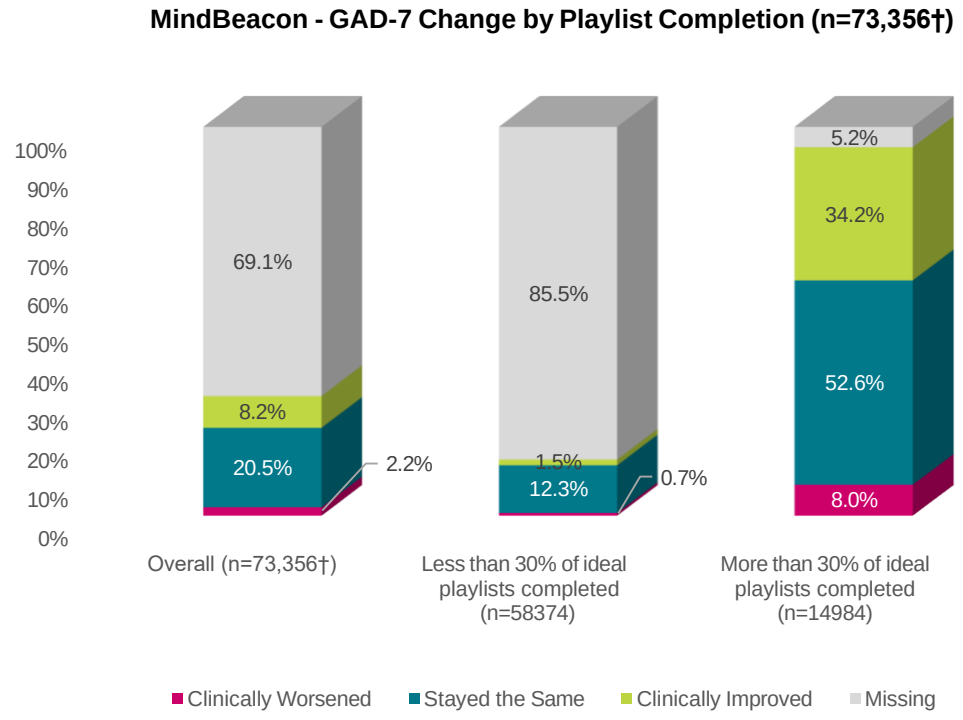


Figure 14 LifeWorks – Change in PHQ-9 by module completion.

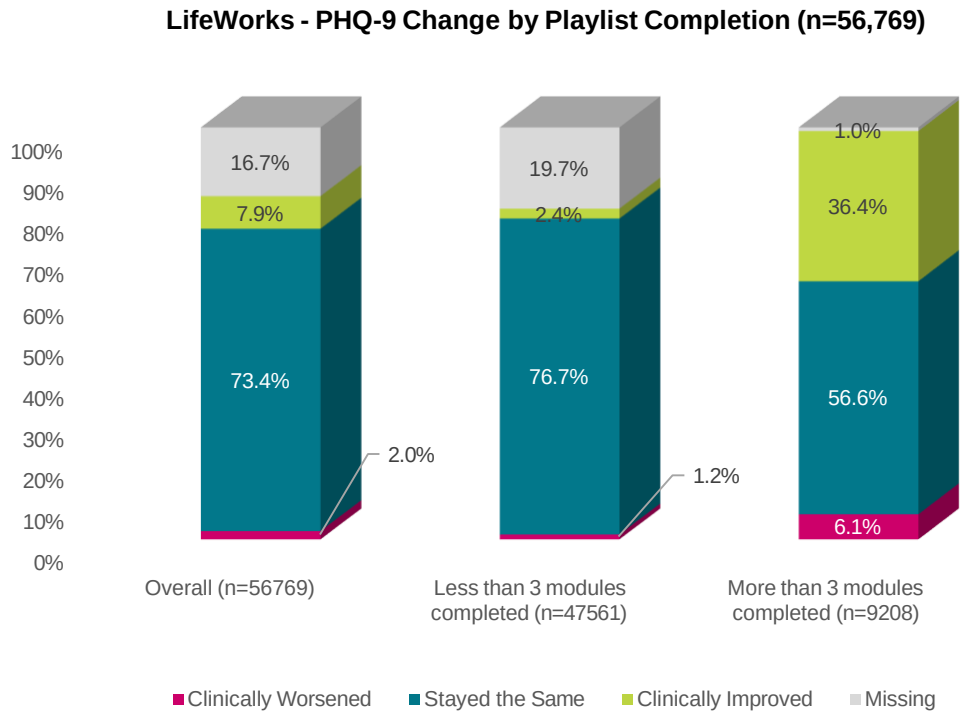
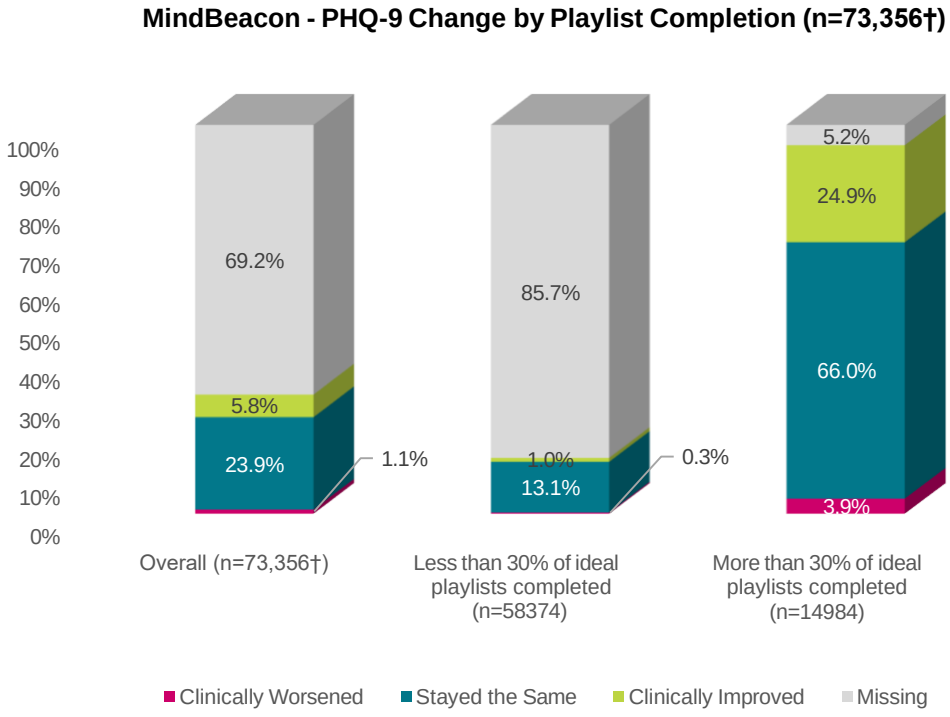


Figure 15 MindBeacon – Change in PHQ-9 by playlist completion.



Discharge x Outcomes

- For MindBeacon, the primary mental health issue was generalized anxiety disorder (39.9%) followed by depression (29.9%), and PTSD (10.2%). In the existing literature, iCBT has been most utilized as a first line of treatment for mild to moderate anxiety or depressive disorders (16). Although iCBT has also proven to have positive effects on clients with PTSD, the full extent of its clinical effectiveness and factors that may influence benefit are yet to be explored for PTSD (26,27).
- Clients assessed for generalized anxiety disorder (31.8% LW; 32.7% MB) and depression (14.9% LW; 34.1% MB) were most commonly discharged to another organization. Discharge most commonly occurred after the intake assessment which determined a client's fit and eligibility for the iCBT based on their individual needs. When additional support beyond iCBT was required, a client would be provided external resources that align with their specific mental health needs.
- For clients discharged successfully, around 37.0% of clients had severe baseline anxiety (36.7% LW; 37.2% MB). For clients discharged to another organization, between 38.0-49.0% of clients of clients had severe baseline anxiety (49.2% LW; 38.2% MB). For clients discharged successfully, around 44.0% of clients had moderately severe to severe baseline depression (44.4% LW; 44.7% MB). For clients who were discharged to another organization, between 53.0-64.0% of clients had moderately severe to severe baseline depression (63.6% LW; 53.4% MB).
- Overall, **clients discharged to another organization had more baseline severity in comparison to clients discharged successfully**. This finding correlates with the **ongoing screening and assessment mechanisms inherent to both service providers which continuously identified clients that required specialized or a higher level of care**. There was no formalized referral pathway to external mental health services, and it was the client's responsibility to connect with the referral organization and/or resources.
- For clients discharged successfully, between 35.6 - 44.7% of clients saw clinical improvement between the first and last GAD-7 scores while in the iCBT program. For clients discharged successfully, between 26.4 - 34.8% of clients saw clinical improvement between first and last PHQ-9 scores while in the program.
- Due to the short-term nature of the iCBT program and cross-sectional nature of administrative data, we can only report on the effectiveness of the program based on first

and last outcome measures collected during treatment. While a considerable percent of clients who completed more than 3 modules or more than 30% of playlists derived clinical benefit in the program, it is **unclear if the benefit will be sustained after treatment and if clients have developed the resilience and skills to prevent relapse (25).**

- Although interviews did not measure client outcomes, client interview respondents shared that through their engagement with the program, they learned strategies that were effective in helping them address and improve their mental health. Please see Figures 46 – 63 in Appendices O – T for more graphs stratified by exit disposition.

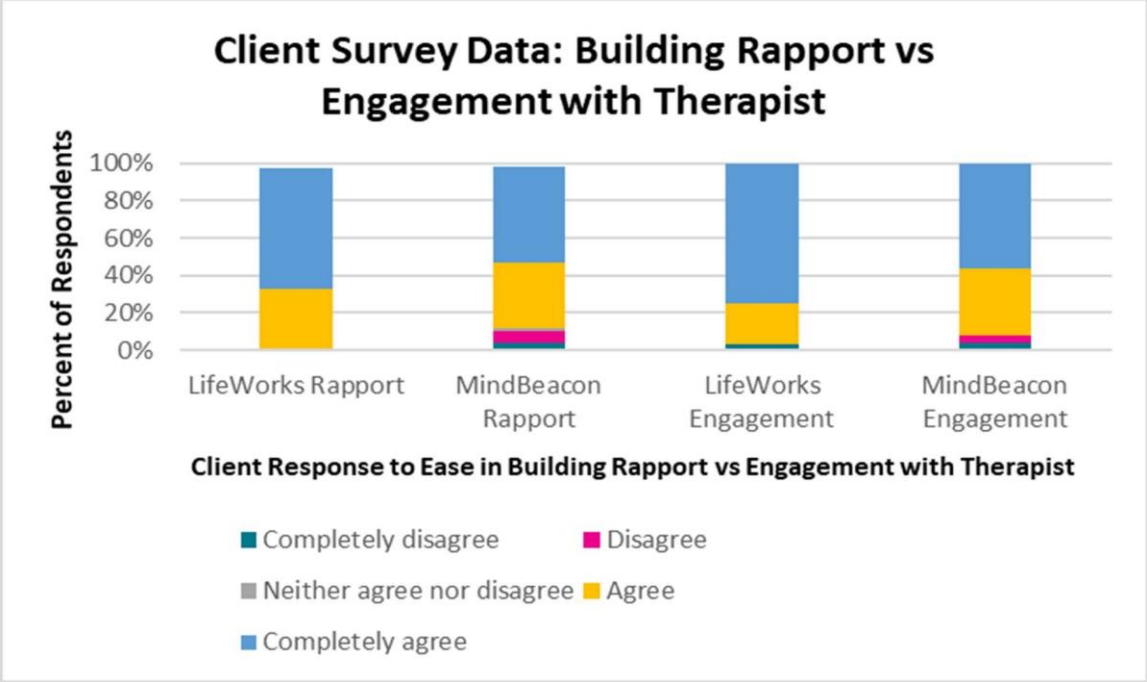
3.3 VALUE PROPOSITIONS

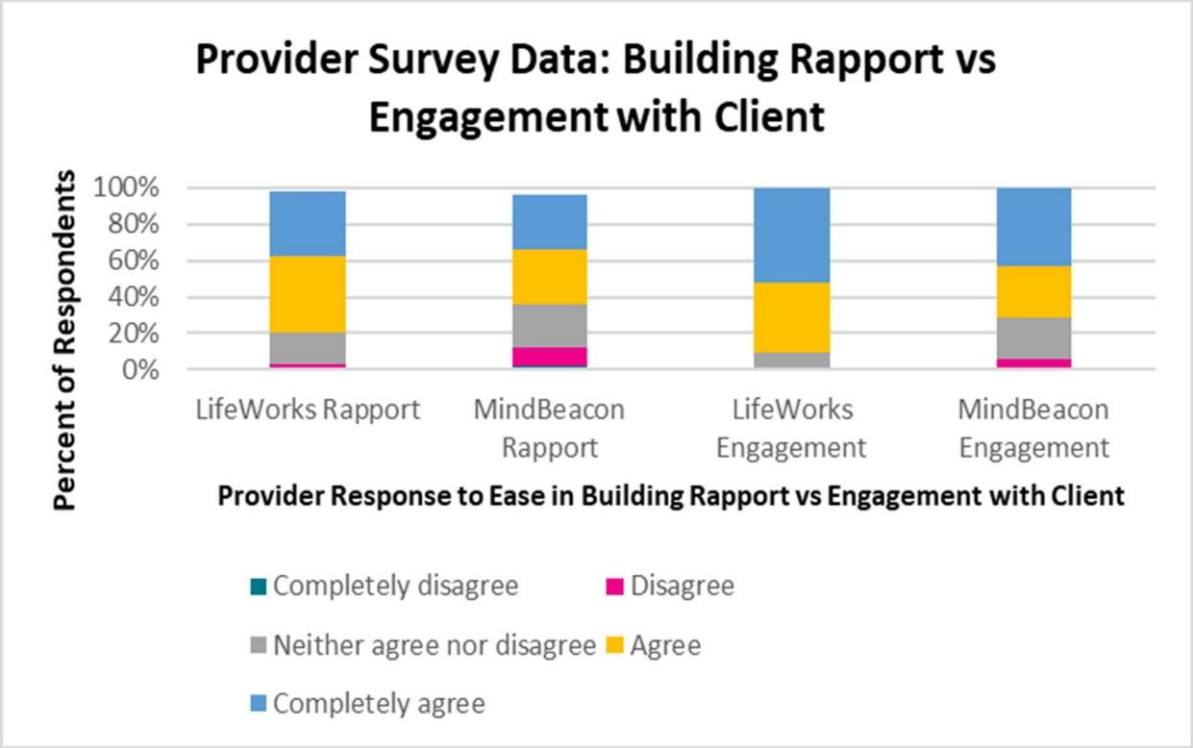
Connection with the Therapist

- Both LifeWorks and MindBeacon clients emphasized the **key role that therapists played in supporting their continued engagement with the program and mental health progress.** Without the therapist's support and encouragement, some clients noted that they would not have completed the program[1]. As one client survey respondent (Client 108, LifeWorks) noted, the "easy access and engagement with the therapist is the strongest part of the program".
- Therapists acted as **guides** who regularly communicated with clients to **provide feedback, keep them on track, and help them work through the program content**. Therapists helped to tailor the generalized content of the program by providing **personalized feedback**, recommendations, and **additional resources.**
- Clients **felt heard, reassured, and supported** in knowing that someone who cared was on the other end reading their messages and reviewing their work.
- While therapists recognized the importance of building a connection with clients, some noted the **difficulty of establishing rapport online**. This required therapists to build and refine their skills in connecting with clients.
- Most client and provider survey respondents from both LifeWorks and MindBeacon **agreed that they were able to engage and build rapport with one another through the platform.**

[1] Please see Appendix U for more detail on "connection with the therapist" and supporting quotes from interviews. Note: Client interviewees were high-engagers, with most fully completing/completing most of the program. As such these views are not generalizable/necessarily representative of all users and only provide insight into the objectives.

- Across both platforms, most client survey respondents **agreed that it was easy to engage and build rapport with their therapist** through the iCBT program. Almost all client survey respondents **agreed or completely agreed that the iCBT program's therapist guidance and communication was easy to navigate and follow** (LW 97.2%; MB 98.0%).
- Across both platforms, **most provider survey respondents agreed that it was easier to engage with clients through the iCBT program than to build rapport with clients through it**. The synchronous component of AbilitiCBT may help in building rapport between clients and therapists which can be seen in client and therapist survey data. However, a larger sample size is required to test if certain program features assist in building rapport between both service providers. Please see Appendix U for more detail on therapist and client rapport and engagement.





As clients progressed through the iCBT program, we saw a greater variation in the number of messages sent to therapists. More than half of clients who completed the first few modules or playlists (47.1% LW; 64.7% MB) sent around 1-5 messages to their therapist. **As clients completed more program components, the number of messages sent to their therapist increased**. Clients with a high level of completion (over 8 modules or more than 80.0% of playlists) received more than 20 messages from their therapist (76.0% LW; 82.5% MB).

Accessibility

> "I think because doing it online and having the time to sit and rethink answers and re-read modules and re-watch videos on my own time without any pressure, I'm thinking maybe that was why I was successful too. … Yeah, because there was times too, it would be tough if it was something that would really kind of come up and hit you in the face. And I would just get up and walk away or maybe go for a walk and come back and you can't do that in traditional therapies." P26, LifeWorks

The **free, online, self-paced format of iCBT made the program highly accessible and convenient** because it reduced barriers related to cost, time, and travel. Both clients and therapist interviewees felt that **iCBT bridged the gap in mental health care** particularly for those who would otherwise be without support because they were unable to find or could not afford

therapy. Furthermore, many clients were busy and valued being able to go through the program at **their own pace** and on their own schedule; this supported the feasibility of continuing to engage in the program[2].

Although the program was widely recognized as being highly accessible, some therapists noted that expanding the language options and offering the content in different formats (varied lengths, videos, visuals, integrating more interactive content) could further support the program's accessibility. This could be helpful to those with different learning needs (e.g., clients with dyslexia, ADHD) and capacities (e.g., clients with brain injuries).

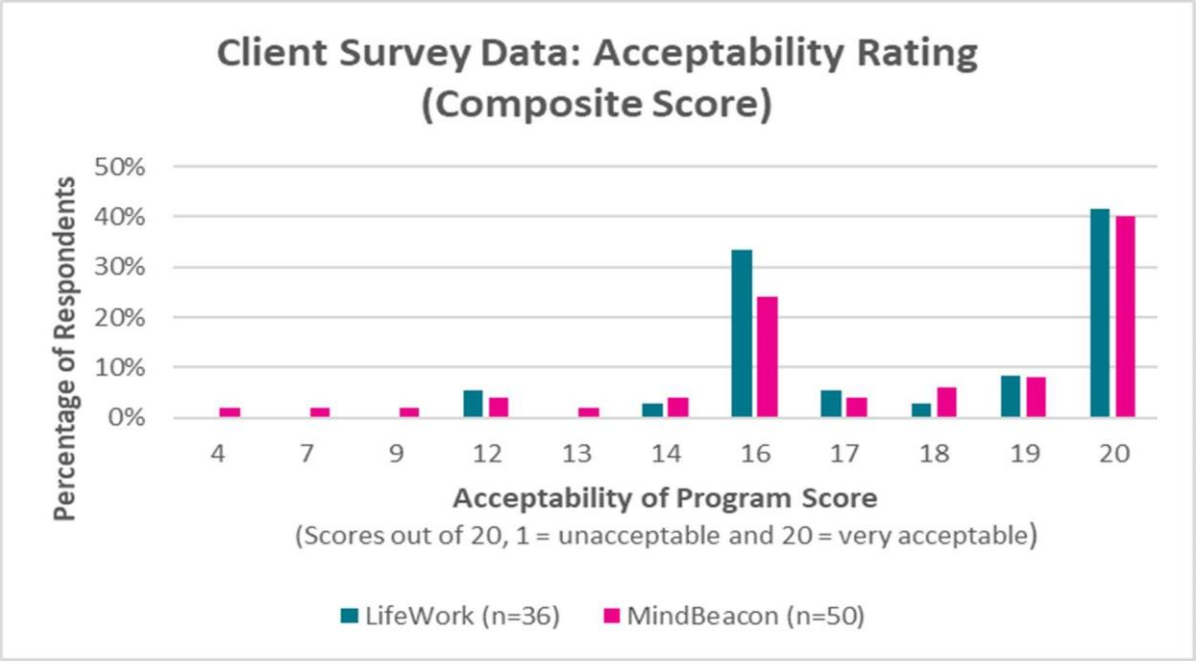
3.4 PLATFORM

Acceptability

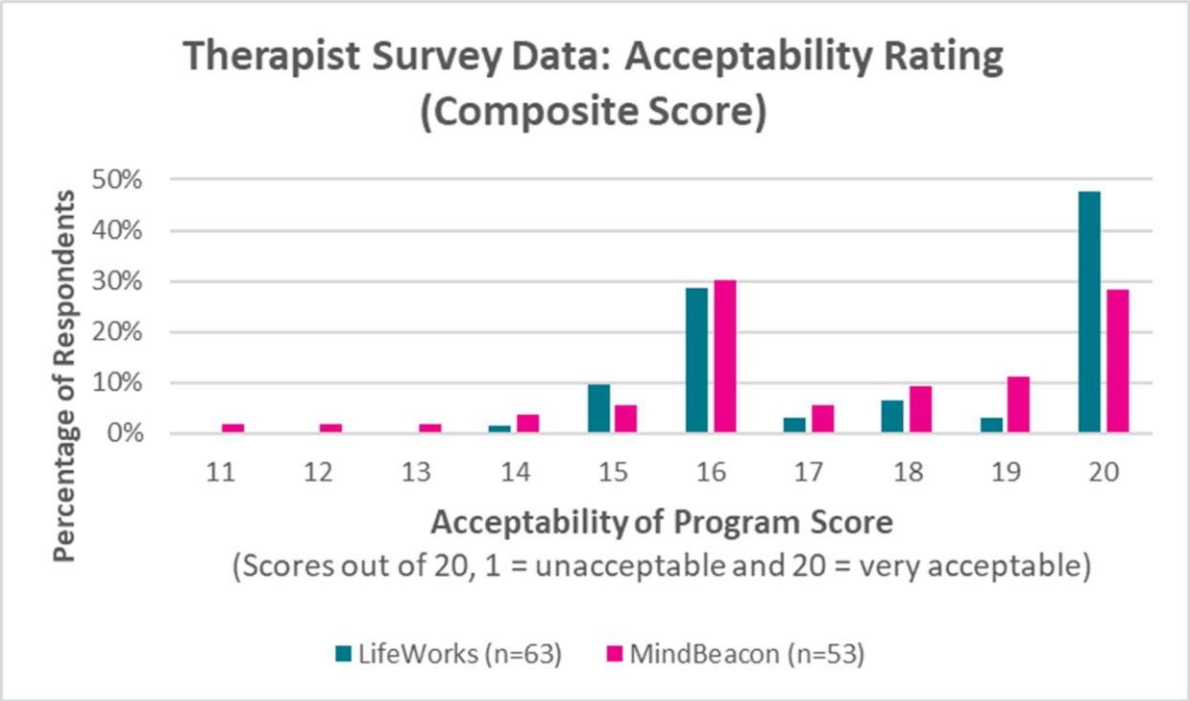
Both clients and therapists of LifeWorks and MindBeacon found the iCBT program to be **highly acceptable**.

- Many therapists liked that the **iCBT program made mental health support more accessible** and valued the opportunity to build their skillset in terms of assessing/working with clients.
- Most client interviewees reported that the program met or exceeded their expectations because it **aligned with their knowledge of CBT**, they gained **practical/relevant skills,** and because they were **connected to a therapist**. One LifeWorks client commented that the program did not meet their expectations because they were hoping for more personalized therapy.
- Many client survey respondents from both service providers found the program to be **easy-to-use,** well-polished and the content to be **engaging and helpful**.
- Most client and therapist survey respondents **agreed or completely agreed** that the iCBT program was appealing and met their approval. Please see Appendix U for a more detailed breakdown of responses.

[2] Please see Appendix U for more detail about accessibility and for supporting quotes.



Displayed as a composite score, the graph above shows the client rating of the respective iCBT program. Scores are out of 20, with 1 indicating the program was not acceptable and 20 indicating the program was very acceptable.



Displayed as a composite score, the graph shows the therapist rating of the respective iCBT program. Scores are out of 20, with 1 indicating the program was not acceptable and 20 indicating the program was very acceptable.

Functionality[3]

- Overall, all therapist survey respondents from LifeWorks (100.0%) and almost all respondents from MindBeacon (84.9%) **agreed or completely agreed** that the iCBT platform was **easy to navigate and follow.** This sentiment was echoed by many client interview respondents from both LifeWorks and MindBeacon, even among those who did not identify themselves as being technologically-savvy. **For some clients, however, the platform was difficult to navigate**.
- Some client and therapist interviewees experienced **technological glitches** (e.g., lost messages, being unable to access new worksheets) that were, however, addressed in a timely manner and did not pose a major barrier to engagement. Therapists perceived that it is **important to reconcile technological issues in a timely manner** to ensure that clients have access to support when it is needed.
- Therapists identified **collegial support and collaboration as an important training/learning resource** for those new to delivering iCBT. This included peer support sessions, lunch and learns, clinical supervision by one's supervisor, diversity training, and training videos.

Recommendations for Improvement

1. Improve **ease of access to information** by enabling hyperlinks in chat function.
2. **Enhance user interface** by modernizing font and pairing text with more visuals/videos.
3. **Enable notifications** for new messages.
4. Introduce a **progress bar** in modules/playlists so clients can budget their time accordingly.
5. **Assess client learning styles** during intake process to better understand clients' learning needs.
6. **Mitigate techno-logical issues** by separating the messaging component from the platform so that clients can still connect to their therapist if the platform goes down.

[3] See Appendix U for more detail. Note: Recommendations are based on client/therapist interviewee responses.

3.5 APPROPRIATENESS AND FEASIBILITY

Many client interviewees from both MindBeacon and LifeWorks perceived that, overall, the program content was **an appropriate fit** for their mental health needs. Similarly, client and therapist survey respondents and therapist interview respondents found the iCBT program to be **appropriate for managing mild to moderate depression and/or anxiety related disorders**, though some therapist interviewees perceived that iCBT is also suitable for some clients with moderate to severe depression and anxiety. However, therapists, relative to clients, perceived the overall program as more appropriate. Please see Appendix U for more detail on appropriateness.

For Whom is the Program Most Appropriate?

Clients who are:

Self-motivated

Reflective

Comfortable with technology

Enjoy writing

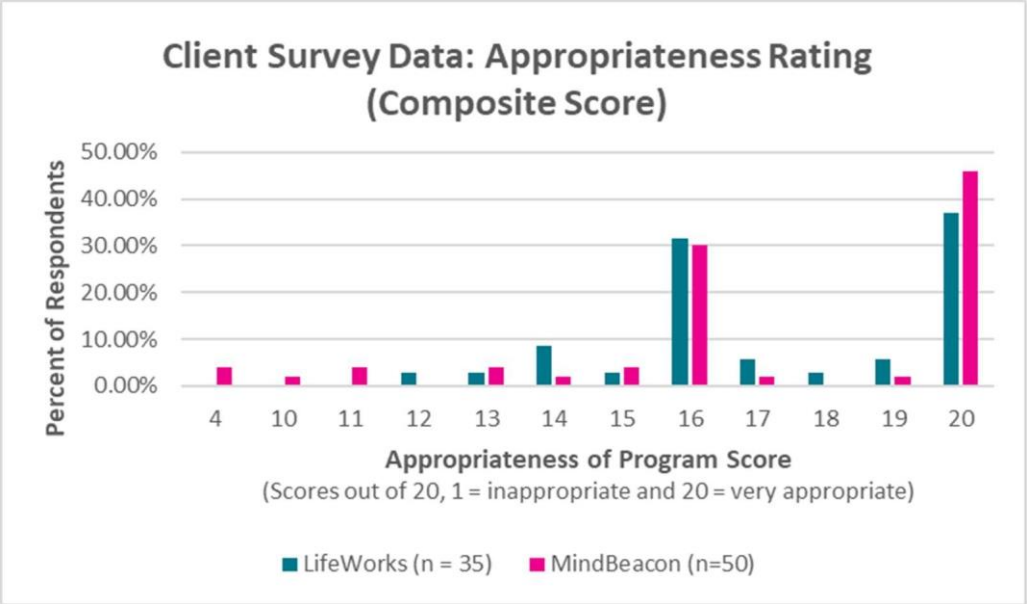
Factors Supporting Appropriateness/Feasibility

- iCBT provided a **gentle introduction** that eased clients into therapy. This was especially helpful for those who were initially hesitant about engaging in therapy.
- Clients expressed that they learned **practical, relevant skills/knowledge** that could easily be implemented in their daily life. Many considered the program content to be **organized and easy to understand**. For a number of LifeWorks clients, the modules built on one another in a way that facilitated continued engagement and understanding.
- The online format of the program offered **flexibility** in providers' work schedule.
- Appropriateness could be further improved by **integrating cultural diversity and sensitivity and consideration of people with physical disabilities** into the design of the program and working with therapists and patient partners to develop the content.

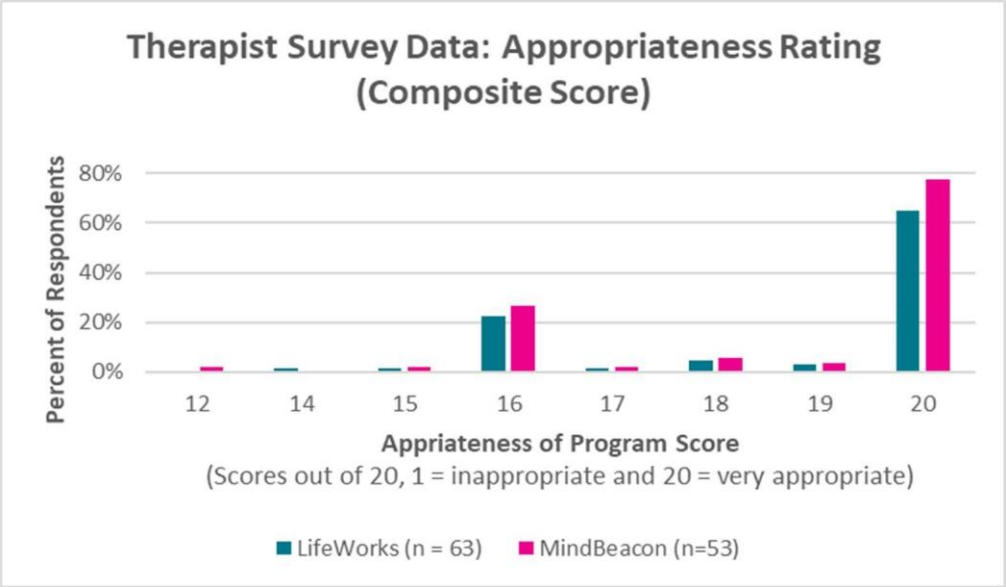
Challenges Related to Appropriateness/Feasibility

- One LifeWorks client commented that **some of the content was triggering** (e.g., questions about difficult/traumatic lived experiences) and the **support of the therapist was key** in these situations. **Most therapists, however, had not encountered situations of risk** (e.g., risk of suicide). Some MindBeacon therapists who had, commented on the difficulty of gauging risk through text alone. LifeWorks providers noted that the AbilitiCBT program has a triaging component with a direct crisis line, which makes situations of risk more manageable.

- The **eligibility criteria for clients is somewhat unclear**, which can make it difficult for prospective users to determine whether the program is an appropriate fit for them. For instance, one LifeWorks client was initially referred to MindBeacon by their provider but was deemed an inappropriate fit even though both the client and their provider felt that MindBeacon would have been a perfect fit.
- Some clients noted that the program was not long enough and/or would have preferred more time with the therapist, especially at program completion.
- Most client and therapist survey respondents **agreed or completely agreed** that the iCBT program was fitting, suitable, and applicable for managing mild to moderate depression and/or anxiety-related disorders.
- Most LifeWorks and MindBeacon therapist survey respondents **agreed or completely agreed** that the iCBT program aligned with clinical evidence and guidelines for managing mental illnesses.

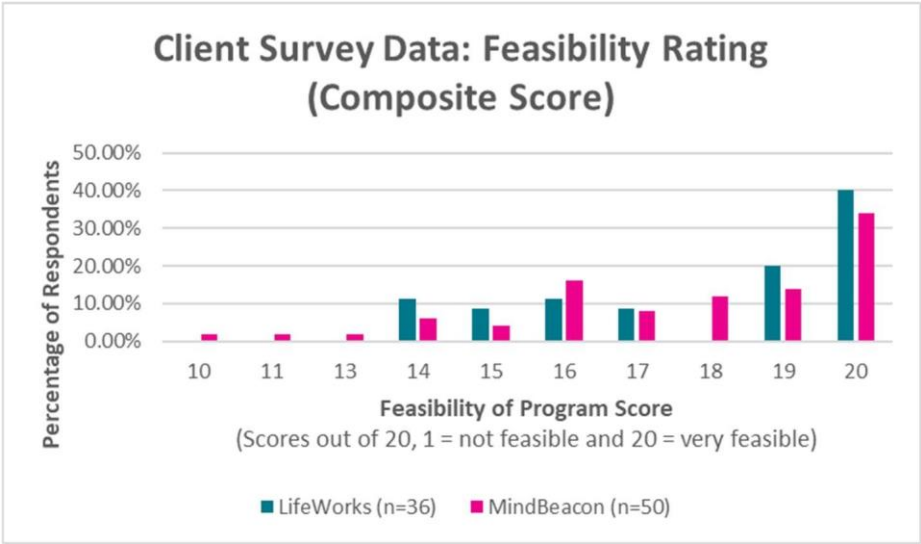


Displayed as a composite score, the graph above shows the client rating of the respective iCBT program. Scores are out of 20, with 1 indicating the program was not appropriate and 20 indicating the program was appropriate.

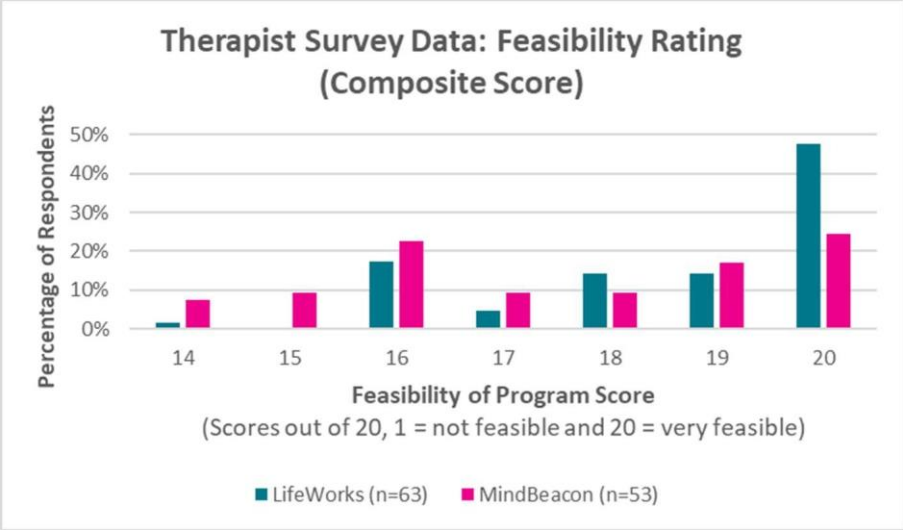


Displayed as a composite score, the graph above shows the therapist rating of the respective iCBT program. Scores are out of 20, with 1 indicating the program was not appropriate and 20 indicating the program was appropriate.

- Overall, both client and therapist survey respondents **agreed or completely agreed** that the program was feasible (i.e., can be successfully implemented in the real world) in that it was easy to use and implement, doable, and a good treatment option for managing mild to moderate mental health conditions.



Displayed as a composite score, the client graph shows the client rating of the respective iCBT program. Scores are out of 20, with 1 indicating the program was not feasible and 20 indicating the program was very feasible.



Displayed as a composite score, the therapist graph shows the therapist rating of the respective iCBT program. Scores are out of 20, with 1 indicating the program was not feasible and 20 indicating the program was very feasible.

3.6 CHALLENGES

Lack of Integration with the Healthcare System

Clients and therapists felt that the **iCBT program was siloed** and expressed interest to **integrate iCBT with other mental health programs/resources** (i.e., peer support groups, face-to-face therapy). Currently, LifeWorks and MindBeacon therapists are unable to make referrals; they can only suggest additional resources, thus placing the burden on clients to reach out to other service providers in a system with existing access challenges.

- Therapists noticed that many of their clients were accessing the iCBT program while on the wait list for other therapeutic services. Therapists felt that this program should not be a replacement for in-person therapy, but rather integrated with primary care and psychiatric services. For example, if a client was referred to iCBT by their primary care provider, communication should be enabled between the therapist and primary care provider.
- Both clients and therapists felt that clients might still require additional support after completion of the iCBT program. Many clients wanted the ability to stay connected (via phone calls or messaging) with their therapist on an ad-hoc basis following completion of the program. Some perceived the loss of contact with the therapist after completing the program to be abrupt.

Overall, the level of communication between therapists delivering the iCBT program and allied health professionals was limited.

- Only a small percentage of LifeWorks (6.4%) and MindBeacon (1.9%) provider survey respondents had communication with their client's family doctor. Of those who saw clients who were referred to the service by a healthcare practitioner, few provider survey respondents from LifeWorks (12.7%) and MindBeacon (1.9%) had communication with the healthcare provider.
- Some therapists perceived a need for more peer-to-peer collaboration to open opportunities for collegial support and collaborative learning.

iCBT should collaborate and build relationships with other agencies to enable referrals and ensure clients do not get lost in the system.

> "One of the things that would be interesting is we have a fair amount of people that it's hard to do iCBT work with them because they actually have a fair amount of fundamental needs that need to be met first, having people with financial issues, food security issues, housing issues. If we had the ability to be that, because most of us are social workers, to help refer them into programs or help them. This is hard because then we get in more of a case management position, which takes a lot of time, and that we don't have. But because we're someone that they've been able to connect with, we do end up doing case management sometimes in trying to help people. Because we're all social worker, so, of course, we're going to try and help them navigate the system and get their EI sorted out or talk to them about their rights with their tenancy agreement and all that sort of stuff. So, being able to connect more into the system or have some sort of ability to refer to programs would be I guess helpful… So, having more connection with other organizations that either treat or having the ability to treat those things on the platform themselves would be helpful". HCP015, MindBeacon

Lack of Customization

At times, the generalized format of the iCBT program posed challenges for both clients and therapists; although it enables broad reach and consistency in terms of the content being delivered, the **lack of customization cannot always meet the specific needs of individuals**.

- Building options to better customize content or refer clients to appropriate resources on specific topics of interest could help to ensure that clients' individualized mental health needs are met. For instance, some clients with anxiety may also require assistance with other challenges such as self-esteem and eating disorders and the platform is not optimally designed to accommodate this.

- Some therapists made efforts to support customization by getting to know their clients' specific needs through text/phone communication and letting them know about additional resources (e.g., websites) that might be beneficial to them. One therapist was able to customize client experiences by telling them which modules to skip and which they may find the most valuable.
- LifeWorks launched the trauma support program to tailor modules to specific clients. MindBeacon therapists added in or excluded playlists to support individualized care. However, the extent of customization is constrained by the program's rigid protocol selection process—a lack of flexibility that is unable to reflect the evolving needs of clients.

Please see Appendix U for more detail on challenges.

3.7 DESIGN AND IMPLEMENTATION

Modality

Clients and providers identified the value and drawbacks of the internet-delivered model of CBT. **Preferences varied among clients from both service providers in terms of frequency of communication and communication modality**. Please see Appendix U for more detail.

- Many clients and therapists valued the **anonymity that the iCBT program offered** because it reduced judgment**.** However, anonymity was concerning for some clients who felt that sharing personal information over an internet-based platform with an unknown/anonymous provider posed more of a privacy risk than in-person therapy.
- The iCBT model was a **better fit than in-person therapy for those who prefer text/writing-based modalities of communication and learning.** Clients who preferred asynchronous (text-based) communication valued having the opportunity to reflect upon and organize their thoughts before expressing them to their therapist and to keep a record of the communication as a learning resource.
- The frequency of communication between clients and therapists varied between one to several messages per week. Both therapists and clients initiated communication. There was also a variation of frequency with respect to synchronous communication for LifeWorks clients who had the option of phone calls with their therapist. Some clients were satisfied with the frequency/amount of communication while others preferred more.

- Some clients preferred to communicate with their therapists via text (i.e., asynchronous communication) rather than phone (i.e., synchronous communication), while others preferred the opposite.
- There were aspects of asynchronous communication that were viewed unfavourably among some clients and therapists. These individuals noted that the text-based chat function did not lend itself to facilitating a flow of conversation because messages were shorter, and the exchange was not immediate.
- Both clients and therapists suggested **building flexibility** in terms of providing options for communication modality (e.g., text, phone, video-call, email).

Referral Source

The iCBT program by LifeWorks and MindBeacon is currently **designed for self-referral** (although referrals from other sources are accepted as well). There are benefits and drawbacks to this model.

Eliminating the need to obtain a referral from a provider/organization makes it easier for clients to connect with a therapist. However, with self-referral, there is a risk that clients spend a lot of time completing the intake assessment only to find they are ineligible or an inappropriate fit. Clients who self-refer sometimes lack the understanding of the program's offerings because there was no screening or education that took place before connecting to the service.

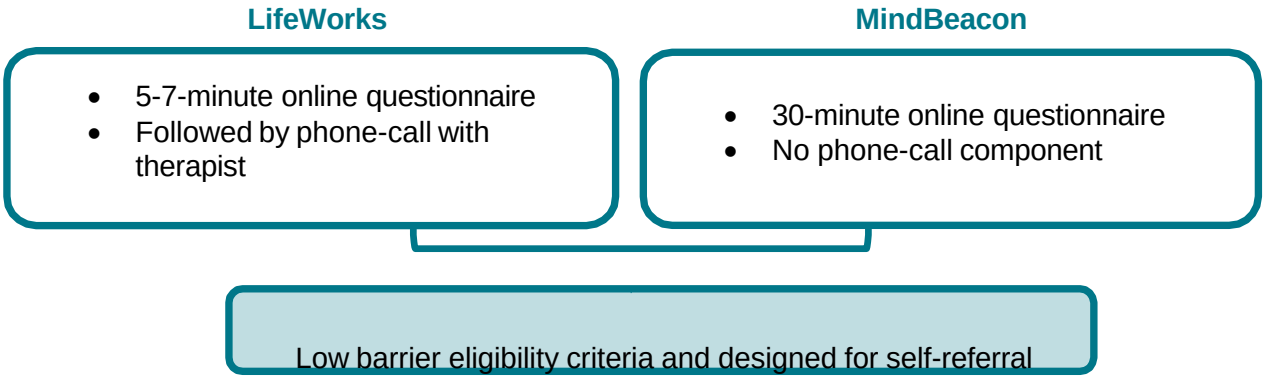
There were key differences identified between the two referral sources based on the administrative data. The most common primary mental health condition was generalized anxiety disorder for self-referred clients (33.0% LW; 16.2% MB) and for clients referred from Network Lead Organizations (NLOs)/hospitals (45.0% LW; 24.0% MB). Baseline severity for anxiety was higher in self-referred clients (33.3% LW; 24.4% MB) than referred clients (25.1% LW; 15.5% MB). Similarly, baseline severity for depression was higher in self-referred clients (21.3% LW; 15.8% MB) than referred clients (12.1% LW; 7.8% MB). More than a quarter of clients referred through NLOs/hospitals received more than 20 messages from their therapist (33.1% LW; 26.7% MB) as compared to self-referred clients (11.8% LW; 16.1% MB).

Clients referred from NLO/hospitals had a higher level of completion (33.4 % LW; 14.1% MB) than self-referred clients (9.5% LW; 7.7% MB). There was variation in GAD-7 clinical improvement for both service providers between self-referred (10.7% LW; 8.2% MB) and clients referred through NLOs/hospitals (25.3% LW; 11.7% MB). Similarly, PHQ-9 clinical improvement for both service

providers differed between self-referred (7.8% LW; 5.8% MB) and clients referred through NLOs/hospitals (17.3% LW; 10.7 % MB).

The data suggests that **clients referred by NLOs/hospitals were screened and triaged by the referral organization prior to intake by the service provider**. This may be further supported by **lower baseline scores, higher engagement, and better assessment of program fit for clients referred through NLOs/hospitals** in comparison to self-referred clients. Due to the small number of clients referred by NLOs/hospitals, we can only highlight differences between referral sources but cannot make broad generalizations about clients based on their referral source. Please see Figures 16 – 31 for more graphs stratified by referral source.

Intake Assessment



Although the iCBT program is currently **intended for individuals with mild to moderate symptoms of anxiety and depression**, therapists noted that they saw clients with more severe symptoms as well. This finding is echoed by the service provider data, which showed a **higher proportion of LifeWorks and MindBeacon clients with severe symptoms of anxiety and depression at baseline**. For LifeWorks, 33.2% of clients had severe symptoms of anxiety and 21.2% of clients had severe depression at baseline. For MindBeacon, 24.3% of clients had severe symptoms of anxiety and 15.8% of clients had severe depression at baseline. **However, the proportion of clients with minimal, mild, moderate and severe depression or anxiety at baseline are similar and constant for those who completed a few, most, or all components of the iCBT program. Regardless of baseline severity, clients had similar levels of program completion.**

Perceptions of Intake Assessment

- Over four fifths of LifeWorks therapist survey respondents (81.0%) and over two-thirds of MindBeacon therapist survey respondents (71.7%) **agreed or completely agreed** that

the iCBT program's self-referral assessment and process aligns with clinical evidence and guidelines for diagnosing mental illnesses.

- For LifeWorks therapists, the **phone-call portion of the intake assessment provided a vital opportunity to screen clients** and determine whether iCBT was an appropriate fit while also building rapport with clients. For some clients, these phone calls helped them feel more comfortable with the therapist. For the same reasons, some MindBeacon providers expressed wanting to have the option for a phone or video call with clients during intake.
- One MindBeacon client noted that the personal questions and absence of a therapist during the intake process acted as a deterrent:

> "I don't think I would have done it if I wasn't ... like I needed help. Some of the information I was typing in there, I didn't quite know if I could trust. I didn't know what MindBeacon was. So, I went through it because I was desperate, but I don't know if I would have shared some of that information online like that had I been in a little bit better place in my head. … maybe have a therapist [to] talk to first beforehand and then enter the information." P013, MindBeacon

- Almost all client survey respondents from LifeWorks (88.9%) and MindBeacon (92.0%) felt that the screening/intake assessment was easy to follow. Similarly, no client interview respondents identified the intake process as a significant barrier to engagement. However, some client interviewees noted that the level of detail in the intake assessment was overwhelming at first but felt that this detail facilitated a good match with the therapist.
- Some MindBeacon therapists noted that some of their clients had directly expressed frustration with the length of the intake assessment.

Caseload

Perceptions about caseload varied among therapists. Some LifeWorks and MindBeacon therapists perceived the client caseload to be manageable while others found it challenging. It was important for therapists to have flexibility in terms of their caseload.

Therapists who felt their workload was manageable noted the **flexibility** that providing iCBT offers in their work schedule. Such flexibility enables therapists to feel a **sense of balance** because it allows them to step away from work and go for a walk when needed.

Therapists identified important implications for care when the client-to-provider ratio is too high. When this happens, therapists face **challenges in building rapport and having meaningful**

interactions because they are unable to spend enough time with each client. Reducing the client caseload would enable therapists to focus more time engaging with each client.

> "Obviously, very large caseloads are not helping anybody do their job as well as they can. … that's one important variable because now we do have quite a lot of people. … Workload is really challenging, so that is not great We have to keep listening to people and keep remembering that these are people. We can maybe forget that if we're dealing with people on a computer. So, just to really reinforce that idea and to make sure that we don't lose sight of it by taking on too much or by having too much … because that's the risk. If you have too many people that you're working with, what I've noticed with some people it's literally pat answers. It doesn't feel meaningful to the person on the other end". HCP009, LifeWorks

4. DISCUSSION AND IMPLICATIONS

4.1 Key Findings

What Works, What Does Not Work, and For Whom?

Following the increase of mental health challenges as a result of the COVID-19 pandemic alongside the existing barriers to accessing mental health services, the iCBT program was introduced to expand virtual mental health services to all Ontarians experiencing mild to moderate depression and/or anxiety-related disorders. Our evaluation findings showed that the program highlighted several key strengths for client engagement that were effective for clients with specific characteristics as well as several key factors that contributed to client drop out, overall dissatisfaction, and missed opportunities. iCBT has shown to be cost-effective both for clients (e.g., cost for travel, cost for traditional 1:1 therapy) and for the health system and included the following assumptions: clients would complete the program over 8 weeks, the program would be entirely self-referral, for individuals with mild to moderate anxiety or depression at baseline, and would be provided via a central portal (11). The health technology assessment synthesis does not provide information on dropout rates, had relatively small sample sizes (less than 1000 individuals), only included people with mild to moderate anxiety or depression, and had previous exposure to treatment (medication or psychotherapy), so it is unclear if the assumptions of cost-effectiveness hold true for this iCBT program. However, the key drivers of cost-effectiveness are likely to be overall cost of the program, proportion paid for intake versus each program component completed, and dropout rates (11).

What Works?

The association between program completion and outcome measures strengthened as both LifeWorks and MindBeacon clients progressed further through the program, with a higher proportion of clients gaining significant improvement in outcome measures later in the program. (Note: The associations between program completion and change in outcome scale measures were controlled by including variables such as gender, healthcare worker status, post-secondary student status, therapist messages, population centre size, and baseline anxiety and depression). Although the literature around the relationship between platform usage data and client outcomes of internet-based mental health interventions have mixed findings, secondary analysis of a randomized control trial examining the efficacy of an iCBT program for adults with depression showed that clients who completed four modules (out of seven) once per week obtained reliable change, suggesting that usage levels during the first month are key for improvement (28).

For the iCBT program, there were many facilitators to module completion and program satisfaction. The following factors supported strong client engagement:

- **Therapist rapport and support**: In both interview and survey responses, LifeWorks and MindBeacon clients highlighted the strong connection with their therapist as a key facilitator in supporting their engagement and progress through the program. Many clients described their therapists as encouraging, engaging, responsive, warm, and welcoming. Therapists provided guidance and feedback throughout the program, encouraged continued engagement, and made sure clients felt heard and supported. These findings align with the literature, which indicate that therapist support increases patient engagement, reduces attrition rates, and produces more effective results (29).
- **Accessibility:** The online, anonymous, and no-cost format of the program removed barriers for many clients who may not have otherwise been able to engage in the program. Over one-quarter of both LifeWorks and MindBeacon survey respondents indicated that they faced financial challenges that may have prevented them from accessing the program had it required payment. Not only did the convenience and anonymity of the online format provide clients with easy access to the program and a therapist, it also removed the financial, emotional, and mental cost of having to travel to see an in-person therapist. These results confirmed existing research findings that show iCBT as a cost-effective option that enhances access to care by allowing clients to overcome geographic limitations and mobility restrictions (29). Furthermore, a recent Ontario study found that there are too few publicly funded psychotherapy services in Ontario to meet the needs of patients with

urgent mental health needs, and that these services are not currently equitably distributed across the province. To address the geographical inequities to accessing psychotherapy, the study suggests that more innovative practices (I.e. leveraging technology) are required to increase and improve patient access to psychotherapy (30).

- **Feasibility**: The self-paced format of the program allowed clients to work at a pace that aligned with their preference and schedule. The non-rigid pace also gave clients the opportunity to pause and reflect on the work completed and revisit the program when they were ready and comfortable, without feeling rushed or pressured. These findings align with the existing research that shows clients value being able to engage at one's own pace (29,31–33).
- **Acceptability**: Most LifeWorks and MindBeacon therapists and clients found the program to be appealing and met their approval. Therapists appreciated the opportunity to build their skillset and clients reported that the iCBT program was compatible with their knowledge of CBT. Many clients found the program to be easy-to-use and the content to be helpful and engaging.
- **Functionality**: Many MindBeacon and LifeWorks clients and providers found the program platform and resources to be easy to navigate, even if they did not consider themselves to be technologically savvy.

What Does Not Work?

Alongside the successes, there were also elements that contributed to client drop out, client and provider dissatisfaction, and missed opportunities.

- According to providers, the following factors may have contributed to client drop out before or during program engagement:
    - Mandated (rather than voluntary) participation.
    - Lacking the time necessary to participate in the program.
    - Long time between intake completion and therapist assignment (exact length is unknown and likely varied between clients).
    - Use of iCBT as a temporary substitute for in-person therapy until it was available.
    - Use of iCBT solely to receive scale outcome measure results.
    - Difficulty building rapport with the therapist through text-based modalities.

- The following factors contributed to provider and/or client dissatisfaction:
    - Some therapists noted that their **high caseload** acted as a barrier to having sufficient time to interact meaningfully with clients.
    - **Lengthy and intrusive intake assessment** acted as a deterrent for clients in the absence of being connected to a therapist beforehand.
    - **Heavy introductory psychoeducational readings** might act as a barrier for clients who perceive the material as being too lengthy and/or not useful.
    - Some therapists voiced the need for more **peer-to-peer collaboration** opportunities to support and learn from one another.
- The following missed opportunities were often cited by clients and therapists:
    - **Lack of integration with the healthcare system**: in its current format, therapists are unable to make referrals and can only suggest additional resources, which puts the burden on the client to reach out to other service providers. This is highly problematic in a system with known, significant access challenges. Furthermore, upon program completion, clients may still require additional support but instead face an abrupt program termination with no continuity of care.
    - **Lack of customization**: at times, the generalized format of iCBT program posed challenges for both clients and therapists as the client's unique needs were not addressed. Some therapists noted that they had to make extra effort to get to know the client and then customize content based on the client's needs by offering additional resources or telling the client to skip certain modules.
- iCBT implementation in Ontario through MindBeacon and LifeWorks can be compared to iCBT offered nationally in Australia through the MindSpot clinic (36):
    - Both had a high volume of initial interest with around 120,000 individuals starting an assessment on the MindSpot website over 7 years and around 130,000 individuals registering for iCBT including complete and incomplete registrations through MindBeacon or LifeWorks over 16 months.
        - The recruitment numbers for LifeWorks and MindBeacon iCBT were higher than MindSpot clinic, which may have been driven by increased demand during the pandemic along with a high degree of accessibility.

- Of those who started an assessment in MindSpot, 12% completed treatment and 88% dropped out after registration and before completing treatment. For LifeWorks and MindBeacon, 9% completed treatment and 91% dropped out after registration and before completing treatment.
    - Even though the dropout rates are slightly higher in Ontario (91%) they are comparable to the MindSpot iCBT service in Australia (88%).
    - Lower drop out in the MindSpot iCBT program may be explained by a stronger focus on retention and several service offerings provided in house by MindSpot clinic alongside iCBT to be tailored to clients' changing needs and preferences.
- More importantly, both population-level implementations of iCBT raise questions about engagement and drop out associated with digital mental health services, and whether all clients that register for digital mental health services are "treatment seeking".

For Whom is iCBT a Good Fit?

The following characteristics describe clients for whom the iCBT program has been found to be most effective:

- Individuals with mild to moderate mental health concerns are well suited for iCBT; however, individuals with severe mental health concerns may also derive benefit but need to be assessed on an individual basis.
- Individuals who are self-motivated, reflective, and enjoy reading and writing.
- Individuals who are comfortable with basic technology or are willing and able to learn how to use it.
- Individuals living in areas with limited access to mental health services, but sufficient access to adequate internet.
- Individuals who prefer not to meet in-person, have busy schedules, or for whom travelling is an obstacle to accessing care.
- Individuals seeking an acceptable, gradual entry point to therapy and/or are new or hesitant about engaging in therapy.

In relation to other iCBT systematic reviews and meta-analyses, there are mixed results regarding program effectiveness and the client's severity of symptoms. Some studies indicate that therapist-

supported iCBT was associated with more substantial benefits for individuals with moderate to severe symptoms (16,34), whereas other findings have indicated that individuals with mild to moderate mental health symptoms are a better fit for this type of program (16). Overall, the iCBT program was able to reach a range of clients with various degrees of mental health severity and eliminate geographical, travel-related, financial, and psychological barriers to expand access to mental health services.

4.2 Limitations

The findings from the evaluation provide important insights into the characteristics and outcomes of high-engagers, however knowledge and understanding are limited with respect to those with low engagement. No non-users (i.e., individuals who prematurely discontinued treatment or were deemed ineligible/inappropriate) volunteered to participate in qualitative interviews despite efforts to reach this group. Moreover, issues with service provider data quality, missing data, and lack of standardization of data across both service providers posed analytical challenges that required additional time and troubleshooting. Both service providers were required to provide several data transfers to rectify ongoing data quality and accuracy issues which impeded deeper analysis of data to make meaningful conclusions for direct policy impact. As the design of this evaluation was pragmatic and the administrative data was cross-sectional, we cannot directly comment on the effectiveness of iCBT and long-term outcomes of clients. A randomized control study with a matched control group would be necessary to measure true effectiveness and association between program completion and change in outcomes. In addition, to measure the impact of iCBT on long-term client outcomes, administrative data would need to be linked to longitudinal data. Furthermore, there were limitations with respect to the survey data given the small sample size and because survey results were not generalizable to all clients due to the lack of variation within the sample (i.e., the sample consisted of mostly high-engagers).

5. RECOMMENDATIONS/NEXT STEPS

Based on our evaluation findings, the iCBT program is not optimally designed to fully leverage their key strengths for all clients as dropout rates and service provider data quality issues were extensive. The recommendations we provide in this report are intended to inform the next phase of rollout to optimize program structure for future iCBT services to be integrated into the healthcare system as part of a value-based, stepped care model in the following ways:

RECOMMENDATIONS FOR MOH

1. **iCBT should be restructured to enable coordinated triage of clients to other health services where appropriate.** Because the program is low-barrier and enables broad reach, it has the potential to channel people into the system who may not have otherwise been able to connect. However, not all clients will be appropriate for iCBT alone, and some may require urgent access to other services. iCBT presents an opportunity for clients to access a form of mental health support as they are waitlisted for other mental health services in select situations, but cannot universally be considered a substitute for such services.

- iCBT is currently a standalone program with no formal connection to the healthcare system, resulting in clients who are potentially inappropriate for iCBT not being offered an alternative, more appropriate service. This is especially problematic for clients who require urgent access to mental health services for severe disease. For iCBT to include a triage mechanism, the intake process should identify patients with needs that go beyond iCBT and refer them to appropriate services. This is important to ensure that those who are deemed inappropriate for iCBT are rapidly and urgently triaged to more appropriate services, and to not have a set of clients flagged as high risk being diverted back to waiting lists or inappropriate care. To support coordinated triage, it would be beneficial to integrate the service into established pathways of care in collaboration with physicians and allied health care providers. Furthermore, for clients who are successfully discharged, create follow up mechanisms to ensure longevity of benefit (i.e. reconnecting with referral source to check in, provision of wellbeing maintenance information, and/or resources for potential relapse).
- As a short-term/immediate measure, the service provider can develop a referral function option at the stage of intake to connect clients to more appropriate services. An efficient, easy-to-use universal referral system would need to be designed to connect iCBT to other relevant services in the healthcare system. This would streamline communication and support ease of client information sharing between providers at different organizations, ultimately improving efficiency and reducing the burden on both client and provider.
- The development of a triage mechanism could be developed by other groups in partnership with the iCBT program or within the iCBT program by changing therapists' roles or the including case managers. If the therapist's role is broadened to include case management, appropriate training and caseload adjustments would be required.

2. **Enable customization of program treatment protocols to align with clients' unique needs and principles of value-based care.** It would be beneficial to allow for flexibility within the program delivery to adapt protocols (I.e., build in "side-quests" so the client can address other mental health challenges and then return to the main protocol) and/or refer the client to services that are better suited to their specific needs. Furthermore, the length of treatment protocols (I.e., number of modules/playlists) should be adapted to fit clients' specific needs.
3. **Provide clients with the option for both asynchronous (online messaging) and synchronous (telephone/video) communication with their therapist.** Access to a therapist was an important factor in the success of the program. Therapist-assisted iCBT programs have been associated with better outcomes and lower dropout rates in comparison to iCBT programs where clients work through the program alone (35). It is important to continue offering therapist-assisted iCBT programs, but programs should allow clients to have the option for both asynchronous (online messaging) and synchronous (telephone/video) communication. If the client's preferred communication modality is not available through a particular service provider, the triage mechanism could operate in this situation as a method to refer clients to other service providers/programs who have the client's preferred option. Offering various communication modalities will enable clients to engage in therapy in ways that best support their unique communication and learning needs. As part of a Health Technology Assessment, the Canadian Agency for Drugs and Technologies in Health conducted a systematic review and meta-synthesis of patients' perspectives and experiences with iCBT and found the value of a tailored approach in terms of program content, level of support, and the client's learning styles and unique needs (29).
4. **Develop standardized quality performance metrics.** When introducing new programs, develop a plan to review metrics and course correct early and at regular intervals. Services like iCBT need to produce rapid evaluations to improve their offerings in a timely fashion.

- For example, both service providers collected basic data (2-3 variables) on communication, although more information was needed to understand how a client and therapist connect, behave, and engage with each other; this is commonly referred to as therapeutic alliance. For the future, collecting both qualitative and quantitative information

on therapeutic alliance and connection will allow for a stronger understanding of client engagement.

- To support continuous monitoring and evaluation of the iCBT services in a timely manner, quality evaluation metrics need to be developed to set clear and defined parameters around what needs to be tracked and collected in real-time.
- Invest in a real-time, low-cost data reporting tool that collects high-quality engagement data and performance metrics and is accessible to third party evaluators.
- Ultimately, timely evaluations can be used to optimize provincial investments, patient and provider experience, and measure health outcomes, effectiveness, and cost per capita. The type, quality, timing, and linkage of data should be specified in the Request for Proposal.

5. **Make broad accessibility a priority feature of all mental health services.** The evaluation findings demonstrated that the structural barriers of in-person therapy (travel, cost, time-demand, etc.) made it challenging for clients to access the mental health services they needed. Because the iCBT program removed these barriers, clients were able to successfully access these necessary services. Removing/reconciling these structural barriers for other mental health services where appropriate is needed to support broad accessibility. Accessibility could be further improved by integrating cultural diversity and consideration of individuals with different physical/cognitive needs into the design of mental health programs.

6. CONCLUSION

To address the numerous barriers to accessing mental health services and the rise in mental health challenges due to the COVID-19 pandemic, the Ontario government expanded virtual mental health offerings in May 2020. One of these services included iCBT, provided through MindBeacon and LifeWorks, which has been found to address many of the barriers to accessing mental health services in a scalable and cost-effective manner. Although the iCBT program was initially designed for those with mild to moderate mental health symptoms, approximately one-third of its clients presented with severe baseline anxiety and depression, and clients from both groups derived benefits. However, there are instances where clients flagged as too severe for iCBT alone are identified and lack streamlined mechanisms to appropriate care. The iCBT

program enables **broad reach and improves accessibility** of mental health services and provides support that is **timely and pragmatic.** As currently implemented, however, the program is not optimally designed to fully leverage its key strengths due to high dropout rates and vendor data quality issues. Vendor data was not structured to determine effectiveness of iCBT as the data could not be linked to external data holdings. Furthermore, both vendors had to provide multiple data cuts due to quality issues with the data. Ongoing data quality assurance practices need to be adopted by both vendors for evaluation purposes. **In the next phase of rollout, the key strengths could be optimized by restructuring the program** such that it is integrated in the health care system as part of a value-based, stepped care model, enabling customization of program treatment protocols and communication modalities, developing standardized quality performance metrics, and making broad accessibility a feature of all mental health services.

7. REFERENCES

1. Proctor E, Silmere H, Raghavan R, Hovmand P, Aarons G, Bunger A, et al. Outcomes for Implementation Research: Conceptual Distinctions, Measurement Challenges, and Research Agenda. Adm Policy Ment Health Ment Health Serv Res. 2011 Mar 1;38(2):65–76.

2. England N. Improving Access to Psychological Therapies: Measuring Improvement and Recovery, Adult Services, Version 2. 2014;

3. Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med. 2006 May 22;166(10):1092–7.

4. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9. J Gen Intern Med. 2001 Sep;16(9):606–13.

5. American Psychological Association. Rapport [Internet]. APA Dictionary of Psychology. [cited 2022 Mar 8]. Available from: https://dictionary.apa.org/

6. Mundt JC, Marks IM, Shear MK, Greist JH. The Work and Social Adjustment Scale: a simple measure of impairment in functioning. Br J Psychiatry J Ment Sci. 2002 May;180:461–4.

7. Canadian Medical Association. Virtual Care in Canada: Discussion Paper [Internet]. Canada: Canadian Medical Association; 2019 p. 1–24. Available from: https://www.cma.ca/sites/default/files/pdf/News/Virtual_Care_discussionpaper_v2EN.pdf

8. Moroz N, Moroz I, D'Angelo MS. Mental health services in Canada: Barriers and cost-effective solutions to increase access. Healthc Manage Forum. 2020 Nov;33(6):282–7.

9. Mental Health Commission of Canada. Canadians report an increase in feeling stressed regularly or all the time now compared to one month before COVID-19 [Internet]. 2020. Available from: https://mentalhealthcommission.ca/wp-content/uploads/2021/10/nanos_covid_may_2020.pdf

10. Office of The Premier. Ontario Increasing Mental Health Support During COVID-19 [Internet]. Government of Ontario. 2020 [cited 2021 Jun 7]. Available from: https://news.ontario.ca/en/release/56547/ontario-increasing-mental-health-support-during-covid-19

11. Health Quality Ontario. Internet-delivered cognitive behavioural therapy for major depression and anxiety disorders: a health technology assessment. Ont Health Technol Assess Ser. 2019;19(6):1.

12. Saad A, Bruno D, Camara B, D'Agostino J, Bolea-Alamanac B. Self-directed Technology-Based Therapeutic Methods for Adult Patients Receiving Mental Health Services: Systematic Review. JMIR Ment Health. 2021;8(11):e27404.

13. van Ballegooijen W, Cuijpers P, van Straten A, Karyotaki E, Andersson G, Smit JH, et al. Adherence to Internet-Based and Face-to-Face Cognitive Behavioural Therapy for Depression: A Meta-Analysis. García AV, editor. PLoS ONE. 2014 Jul 16;9(7):e100674.

14. van Ballegooijen W, Cuijpers P, van Straten A, Karyotaki E, Andersson G, Smit JH, et al. Adherence to Internet-Based and Face-to-Face Cognitive Behavioural Therapy for Depression: A Meta-Analysis. García AV, editor. PLoS ONE. 2014 Jul 16;9(7):e100674.

15. Dedert E, McDuffie JR, Swinkels C, Shaw R, Fulton J, Allen KD, et al. Computerized Cognitive Behavioral Therapy for Adults with Depressive or Anxiety Disorders [Internet]. Washington (DC): Department of Veterans Affairs (US); 2013 [cited 2022 Mar 15]. (VA Evidence-based Synthesis Program Reports). Available from: http://www.ncbi.nlm.nih.gov/books/NBK269001/

16. Health Quality Ontario. Internet-Delivered Cognitive Behavioural Therapy for Major Depression and Anxiety Disorders: A Health Technology Assessment. Ont Health Technol Assess Ser. 2019;19(6):1–199.

17. Sijbrandij M, Kunovski I, Cuijpers P. Effectiveness of Internet-Delivered Cognitive Behavioral Therapy for Posttraumatic Stress Disorder: A Systematic Review and Meta-Analysis. Depress Anxiety. 2016 Sep;33(9):783–91.

18. Terlizzi EP. Symptoms of Generalized Anxiety Disorder Among Adults: United States, 2019. 2020;(378):8.

19. Villarroel MA. Symptoms of Depression Among Adults: United States, 2019. 2020;(379):8.

20. Mitchell AJ, Yadegarfar M, Gill J, Stubbs B. Case finding and screening clinical utility of the Patient Health Questionnaire (PHQ-9 and PHQ-2) for depression in primary care: a diagnostic meta-analysis of 40 studies. BJPsych Open. 2016 Mar;2(2):127–38.

21. Plummer F, Manea L, Trepel D, McMillan D. Screening for anxiety disorders with the GAD-7 and GAD-2: a systematic review and diagnostic metaanalysis. Gen Hosp Psychiatry. 2016 Mar;39:24–31.

22. Reynolds WM. The PHQ-9 works well as a screening but not diagnostic instrument for depressive disorder. Evid Based Ment Health. 2010 Aug 3;13(3):96–96.

23. Lorenzo-Luaces L, Johns E, Keefe JR. The generalizability of randomized controlled trials of self-guided internet-based cognitive behavioral therapy for depressive symptoms: systematic review and meta-regression analysis. J Med Internet Res. 2018;20(11):e10113.

24. Cross SP, Karin E, Staples LG, Bisby MA, Ryan K, Duke G, et al. Factors associated with treatment uptake, completion, and subsequent symptom improvement in a national digital mental health service. Internet Interv. 2022;27:100506.

25. Clark DM, Canvin L, Green J, Layard R, Pilling S, Janecka M. Transparency about the outcomes of mental health services (IAPT approach): an analysis of public data. The Lancet. 2018 Feb;391(10121):679–86.

26. Young C, Campbell K. Internet-delivered cognitive behavioral therapy for post-traumatic stress disorder: A review of clinical effectiveness [Internet]. Ottawa: CADTH; 2018 Nov p. 1–42. Available from: https://www.cadth.ca/sites/default/files/pdf/htis/2018/RD0048%20iCBT%20for%20PTSD%20Final.pdf

27. Lewis C, Roberts NP, Simon N, Bethell A, Bisson JI. Internet-delivered cognitive behavioural therapy for post-traumatic stress disorder: systematic review and meta-analysis. Acta Psychiatr Scand. 2019 Dec;140(6):508–21.

28. Enrique A, Palacios JE, Ryan H, Richards D. Exploring the Relationship Between Usage and Outcomes of an Internet-Based Intervention for Individuals With Depressive Symptoms: Secondary Analysis of Data From a Randomized Controlled Trial. J Med Internet Res. 2019 Aug 1;21(8):e12775.

29. CADTH. Internet-Delivered Cognitive Behavioural Therapy for Major Depressive Disorder and Anxiety Disorders: Patients' Perspectives and Experiences, Implementation, and Ethical Issues [Internet]. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2019 [cited 2021 Jun 11]. Available from: http://www.ncbi.nlm.nih.gov/books/NBK542837/

30. Kurdyak P, Zaheer J, Carvalho A, Oliveira C de, Lebenbaum M, Wilton AS, et al. Physician-based availability of psychotherapy in Ontario: a population-based retrospective cohort study. Can Med Assoc Open Access J. 2020 Jan 1;8(1):E105–15.

31. Donkin L, Glozier N. Motivators and Motivations to Persist With Online Psychological Interventions: A Qualitative Study of Treatment Completers. J Med Internet Res. 2012 Jun 22;14(3):e2100.

32. Holst A, Nejati S, Björkelund C, Eriksson MCM, Hange D, Kivi M, et al. Patients' experiences of a computerised self-help program for treating depression - a qualitative

study of Internet mediated cognitive behavioural therapy in primary care. Scand J Prim Health Care. 2017 Mar;35(1):46–53.

33. Lundgren J, Andersson G, Dahlström Ö, Jaarsma T, Köhler AK, Johansson P. Internet-based cognitive behavior therapy for patients with heart failure and depressive symptoms: A proof of concept study. Patient Educ Couns. 2015 Aug;98(8):935–42.

34. Karyotaki E, Efthimiou O, Miguel C, Bermpohl FM genannt, Furukawa TA, Cuijpers P, et al. Internet-Based Cognitive Behavioral Therapy for Depression: A Systematic Review and Individual Patient Data Network Meta-analysis. JAMA Psychiatry. 2021 Apr 1;78(4):361–71.

35. Baumeister H, Reichler L, Munzinger M, Lin J. The impact of guidance on Internet-based mental health interventions — A systematic review. Internet Interv. 2014 Oct;1(4):205–15.

36. Titov N, Dear BF, Staples LG, Bennett-Levy J, Klein B, Rapee RM, Andersson G, Purtell C, Bezuidenhout G, Nielssen OB. The first 30 months of the MindSpot Clinic: Evaluation of a national e-mental health service against project objectives. Australian & New Zealand Journal of Psychiatry. 2017 Dec;51(12):1227-39.

8. APPENDICES

8.1 Appendix A: Service Provider Programs

Table 2. LifeWorks program content.

LifeWorks AbilitiCBT program content
Intake Assessment: Assess program fit, mental health condition, and assign treatment plan
Module 1: Introduction, goal setting, application functions, triage
Module 2 – 3: Psychoeducation
Module 4 – 6: CBT thoughts and feelings
Module 7 – 8: CBT behaviors
Module 9 – 10: Integration of mindfulness
Module 11 – 12: Trauma support

Table 3. MindBeacon mental health diagnosis-specific protocols.

Mental health diagnosis protocols	Number of playlists
Depression	11
Panic	9
GAD	15
Social Anxiety	10
PTSD	13
Insomnia	13
Chronic Pain	9
Illness Anxiety	7
Stress	16
Alcohol	13
Chronic Illness	12
Social Anxiety (*newly revised protocol with additional playlists**)	14

8.2 Appendix B: Demographics

Table 5. Clients' administrative demographic data.

Demographic categories	Number of LifeWorks Clients (N=56,769)	Number of MindBeacon Clients (N=73,356†)
Age		
Under 18	152 (0.3%)	1,157 (1.6%)
18-28	4,656 (8.2%)	17,319 (23.6%)
29-39	4,481 (7.9%)	15,856 (21.6%)
40-50	2,164 (2.3%)	8,434 (11.5%)
51-61	1,329 (2.3%)	5,021 (6.8%)
62-72	488 (0.9%)	1,708 (2.3%)
73-84	62 (0.1%)	335 (0.5%)
85 and older	0 (0.0%)	16 (0.02%)
Missing	43,437 (76.52%)	23,510 (32.05%)
Gender		
Female	42,827 (75.5%)	45,100 (61.5%)
Male	12,267 (21.6%)	13,893 (18.9%)
Sexual Minorities (Female-to-Male, Male-to-Female, Transgender, Intersex, Two-Spirited, Other)	912 (1.6%)	642 (0.9%)
Prefer not to answer	763 (1.3%)	351 (0.5%)
Missing	0 (0.0%)	13,370 (18.2%)
Race/ethnicity		
White	13,673 (24.1%)	29,377 (40.1%)
South Asian	2,286 (4.0%)	3,570 (4.9%)
Prefer not to answer	1,534 (2.7%)	0 (0.0%)
Other	1,180 (2.1%)	1,571 (2.1%)
Black	1,064 (1.9%)	1,745 (2.4%)
Chinese	639 (1.1%)	1,688 (2.3%)
Filipino	495 (0.9%)	852 (1.2%)
First Nations	390 (0.7%)	1,100 (1.5%)
Japanese	31 (0.1%)	42 (0.1%)
Korean	105 (0.2%)	240 (0.3%)
Latin American	593 (1.0%)	917 (1.3%)
Southeast Asian	248 (0.4%)	330 (0.5%)
West Asian	253 (0.5%)	461 (0.6%)
Arab	434 (0.8%)	633 (0.9%)
Missing	33,844 (59.6%)	30,830 (42.0%)
Language		

English	56,600(99.7%)	73,254 (99.9%)
French	169 (0.3%)	102 (0.1%)
Healthcare worker		
No	49,297 (86.8%)	55,000 (75.0%)
Yes	7,285 (12.8%)	7,774 (10.6%)
Missing	187 (0.3%)	10,582 (14.4%)
Post-secondary student		
No	36,804 (64.8%)	34,351 (46.8%)
Yes	19,868 (34.7%)	9,542 (13.0%)
Missing	279 (0.5%)	29,463 (40.2%)
Prior mental health therapy		
No	10,659 (18.8%)	Not provided
Yes	14,081 (24.8%)	Not provided
Missing	32,029 (56.4%)	Not provided
Referral type		
Hospital/NLO	486 (0.9%)	206 (0.3%)
Self-referral	56,283 (99.1%)	73,150 (99.7%)
Referral organization		
CAMH	47 (0.1%)	18 (0.02%)
Self-referral	56,283 (99.2%)	73,150 (99.7%)
St. Joseph's	47 (0.1%)	0 (0.0%)
Waypoint	392 (0.7%)	0 (0.0%)
Ontario Shores	0 (0.0%)	68 (0.1%)
Royal Ottawa	0 (0.0%)	120 (0.2%)
Location of residence		
Rural (less than 1K)	1,655 (2.9%)	753 (1.0%)
Small population centres (1K to 29,999)	9,731 (17.1%)	6,526 (8.9%)
Medium population centres (30K to 99,999)	5,110 (9.0%)	4,420 (6.0%)
Large and urban population centres (100K +)	36,886 (65.0%)	29,961 (40.8%)
Outside of Ontario	0 (0.0%)	190 (0.3%)
Missing	3,387 (6.0%)	31,506 (43.0%)
Baseline Anxiety		
Minimal (0-4)	1,475 (2.6%)	4,481(6.1%)
Mild (5-9)	9,524 (16.8%)	11,104 (15.1%)
Moderate (10-14)	10,558 (18.6%)	12,606 (17.2%)
Severe (15-21)	18,861 (33.2%)	17,850 (24.3%)
Missing	16,351 (28.8%)	27,315 (37.2%)

Baseline Depression		
None to Minimal (0-4)	4,965 (8.8%)	2,626 (3.6%)
Mild (5-9)	8,315 (14.7%)	8,139 (11.1%)
Moderate (10-14)	10,369 (18.3%)	11,520 (15.7%)
Moderately Severe (15-19)	11,115 (19.6%)	12,161 (16.6%)
Severe (20-27)	12,058 (21.2%)	11,595 (15.8%)
Missing	9,947 (17.5%)	27,315 (37.2%)

Table 7. Client survey demographic data.

Demographic categories	Number of LifeWorks Survey Respondents (N=36)	Number of MindBeacon Survey Respondents (N=50)
Age		
18 - 28	6 (16.7%)	11 (22.0%)
29 - 39	14 (38.9%)	14 (28.0%)
40 - 50	8 (22.2%)	7 (14.0%)
51 - 61	3 (8.3%)	6 (12.0%)
62 - 72	3 (8.3%)	8 (16.0%)
73 - 84	0 (0.0%)	2 (4.0%)
Missing	2 (5.6%)	2 (4.0%)
Gender		
Male	7 (19.4%)	9 (18.0%)
Female	29 (80.6%)	41 (82.0%)
Language(s) client is most comfortable speaking in with their provider		
English	36 (100.0%)	50 (100%)
French	2 (5.6%)	3 (6.0%)
Racial group		
Prefer not to answer	1 (2.8%)	1 (2.0%)
East Asian	0 (0.0%)	1 (2.0%)
Southeast Asian	1 (2.8%)	1 (2.0%)
Middle Eastern	1 (2.8%)	0 (0.0%)
South Asian	4 (11.1%)	2 (4.0%)
White	27 (75.0%)	39 (78.0%)
Prefer to self-describe	2 (5.6%)	5 (10.0%)
Indigenous	0 (0.0%)	1 (2.0%)
Education		
Highschool	7 (19.4%)	3 (6.0%)
Trade or vocational diploma/certificate	3 (8.3%)	2 (4.0%)
College degree/diploma certificate	10 (27.8%)	17 (34.0%)

Undergraduate degree	7 (19.4%)	20 (40.0%)
Master's degree	7 (19.4%)	7 (14.0%)
Professional degree (e.g., PhD, MD, JD, DDS, etc.)	2 (5.6%)	1 (2.0%)
Modules/playlists completed		
1	0 (0.0%)	1 (2.0%)
2	0 (0.0%)	0 (0.0%)
3	1 (2.8%)	2 (4.0%)
4	0 (0.0%)	1 (2.0%)
5	2 (5.6%)	1 (2.0%)
6	4 (11.1%)	3 (6.0%)
7	5 (13.9%)	0 (0.0%)
8	4 (11.1%)	5 (10.0%)
9	8 (22.2%)	0 (0.0%)
10	8 (22.2%)	6 (12.0%)
11	0 (0.0%)	7 (14.0%)
12	4 (11.1%)	14 (28.0%)
Don't know	0 (0.0%)	10 (20.0%)
Comfort level with written communication		
Uncomfortable	1 (2.8%)	3 (6.0%)
Neither comfortable nor uncomfortable	1 (2.8%)	1 (2.0%)
Comfortable	4 (11.1%)	8 (16.0%)
Very comfortable	30 (83.3%)	38 (76.0%)
Device access		
Private device	36 (100.0%)	48 (96.0%)
Shared device	0 (0.0%)	2 (4.0%)
Reliability of access to a device		
Yes	36 (100.0%)	49 (98.0%)
Sometimes	0 (0.0%)	1 (2.0%)
Comfort level with technology		
Basic	0 (0.0%)	1 (2.0%)
Average	6 (16.7%)	7 (14.0%)
Advanced	17 (47.2%)	19 (38.0%)
Expert	13 (36.1%)	23 (46.0%)
Referral source		
Nobody	25 (69.4%)	39 (78.0%)
Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)	6 (16.7%)	6 (12.0%)
Other	5 (13.9%)	5 (10.0%)
Who recommended the iCBT program to the client		

Nobody	16 (44.4%)	31 (62.0%)
Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)	4 (11.1%)	2 (4.0%)
Family member	2 (5.6%)	4 (8.0%)
Employer	3 (8.3%)	0 (0.0%)
Other	0 (0.0%)	2 (4.0%)
Missing	11 (30.6%)	11 (22.0%)
Employment		
Full-time	19 (52.8%)	22 (44.0%)
Part-time	2 (5.6%)	7 (14.0%)
Casual, on-call or short-term contract	1 (2.8%)	1 (2.0%)
Self-employed	2 (5.6%)	5 (10.0%)
Not currently working in labour force	6 (16.7%)	9 (18.0%)
Other	6 (16.7%)	6 (12.0%)
Housing		
Apartment/house (home owner)	15 (41.7%)	29 (58.0%)
Apartment/house (tenant)	18 (50.0%)	21 (42.0%)
Other	3 (8.3%)	0 (0.0%)
Geographic Size		
Rural (Less than 1000 people)	2 (5.6%)	1 (2.0%)
Small (1,000 – 29,999)	7 (19.4%)	6 (12.0%)
Medium (30,000 - 99,999)	3 (8.3%)	5 (10.0%)
Large (100,000 – 999,999)	12 (33.3%)	17 (34.0%)
Urban (1 million and over)	9 (25.0%)	20 (40.0%)
Do not know	2 (5.6%)	1 (2.0%)
Missing	1 (2.8%)	0 (0.0%)
Overall health		
Poor	2 (5.6%)	4 (8.0%)
Fair	16 (44.4%)	10 (20.0%)
Good	8 (22.2%)	26 (52.0%)
Very good	9 (25.0%)	8 (16.0%)
Excellent	1 (2.8%)	2 (4.0%)
Annual household income		
$0 – $29,999	4 (11.1%)	7 (14.0%)
$30,000 – $59,999	11 (30.6%)	8 (16.0%)
$60,000 – $89,999	5 (13.9%)	9 (18.0%)
$90,000 – $119,999	5 (13.9%)	7 (14.0%)
$120,000 – $149,999	5 (13.9%)	6 (12.0%)
$150,000 +	3 (8.3%)	5 (10.0%)
Prefer not to answer	3 (8.3%)	6 (12.0%)

Do not know	0 (0.0%)	2 (4.0%)
Faces occasional challenges meeting financial needs		
Yes	14 (38.9%)	14 (28.0%)
No	21 (58.3%)	31 (62.0%)
Prefer not to answer	0 (0.0%)	3 (6.0%)
Missing	1 (2.8%)	2 (4.0%)

Table 8. Therapist survey demographic data.

Demographic categories	Number of LifeWorks Survey Respondents (N=63)	Number of MindBeacon Survey Respondents (N=53)
Professional Designation		
Social Worker	55 (87.3%)	48 (90.6%)
Registered Psychotherapist	7 (11.1%)	5 (9.4%)
Other	1 (1.6%)	0 (0.0%)
Years in Profession		
1 Year or Less	12 (19.1%)	7 (13.2%)
2-5 Years	13 (20.6%)	20 (37.7%)
6-10 Years	12 (19.1%)	6 (11.3%)
11-15 Years	9 (14.3%)	6 (11.3%)
16+ Years	17 (27.0%)	14 (26.4%)
Length of Time Delivering iCBT Since May 2020		
1-3 Months	7 (10.9%)	5 (9.4%)
4-6 Months	17 (25.6%)	16 (30.2%)
7-11 Months	23 (25.9%)	15 (28.3%)
12+ Months	16 (25.0%)	17 (32.1%)
Age		
18 - 28	9 (14.3%)	4 (7.6%)
29 - 39	22 (34.9%)	14 (26.4%)
40 - 50	13 (20.6%)	10 (18.9%)
51 - 61	13 (20.6%)	16 (30.2%)
62 - 72	3 (4.8%)	2 (3.8%)
73 - 84	0 (0.0%)	0 (0.0%)
Prefer Not To Answer	1 (2.6%)	4 (7.6%)
Missing	2 (3.2%)	3 (5.7%)
Gender		
Male	6 (9.5%)	6 (11.3%)
Female	57 (90.5%)	47 (88.7%)

Language(s) therapist is most comfortable speaking in with their clients		
English	60 (95.2%)	53 (100%)
French	4 (6.4%)	3 (5.7%)
Racial group		
Prefer not to answer	2 (3.17%)	2 (3.8%)
Black	4 (6.4%)	4 (7.6%)
East Asian	3 (4.8%)	1 (1.9%)
Southeast Asian	2 (3.2%)	0 (0.0%)
Latino	1 (1.6%)	2 (3.8%)
Middle Eastern	4 (6.4%)	0 (0.0%)
South Asian	8 (12.7%)	2 (3.8%)
White	32 (50.8%)	40 (75.5%)
Prefer to self-describe	7 (11.1%)	2 (3.8%)
Indigenous	0 (0.0%)	0 (0.0%)
Comfort level with technology		
Basic	0 (0.0%)	0 (0.0%)
Average	4 (6.4%)	8 (15.1%)
Advanced	42 (66.7%)	31 (58.5%)
Expert	17 (27.0%)	14 (26.4%)
Employment		
Full-time	52 (82.5%)	39 (73.6%)
Part-time	10 (15.9%)	12 (22.6%)
Supervisor	1 (1.6%)	0 (0.0%)
Independent contractor	0 (0.0%)	2 (3.8%)
Geographic Size		
Rural (Less than 1000 people)	0 (0.0%)	0 (0.0%)
Small (1,000 – 29,999)	4 (6.4%)	3 (5.7%)
Medium (30,000 to 99,999)	4 (6.4%)	5 (9.4%)
Large (100,000 – 999,999)	19 (30.2%)	13 (24.5%)
Urban (1 million and over)	23 (36.5%)	26 (49.1%)
Do not know	12 (19.1%)	5 (9.4%)
Prefer not to answer	1 (1.6%)	1 (1.9%)

Table 10. Client interviewee demographic data.

Demographic categories	Number of LifeWorks interviewees (N=10)	Number of MindBeacon interviewees (N=9)
Age		
20-35	4 (40.0%)	0 (0.0%)
36-50	4 (40.0%)	4 (44.4%)
51-65	2 (20.0%)	4 (44.4%)

66+	0 (0.0%)	1 (11.1%)
Gender		
Male	4 (40.0%)	4 (44.4%)
Female	6 (60.0%)	5 (55.6%)
Prefer not to answer	0 (0.0%)	0 (0.0%)
Language(s) client is most comfortable speaking in with their provider		
English	10 (100.0%)	9 (100.0%)
Dual (English + French or Spanish or Hindi)	3 (30.0%)	1 (11.1%)
Racial group		
White	5 (50.0%)	9 (100.0%)
Mixed Race	3 (30.0%)	0 (0.0%)
South Asian	1 (10.0%)	0 (0.0%)
Indigenous	1 (10.0%)	0 (0.0%)
North African	0 (0.0%)	0 (0.0%)
Education		
Highschool	2 (20.0%)	0 (0.0%)
College degree/diploma certificate	5 (50.0%)	4 (44.4%)
Undergraduate degree	2 (20.0%)	3 (33.3%)
Master's degree	0 (0.0%)	1 (11.1%)
Professional degree	0 (0.0%)	1 (11.1%)
Prefer not to answer	1 (10.0%)	0 (0.0%)
Modules/playlists completed		
6	0 (0.0%)	1 (11.1%)
7	0 (0.0%)	1 (11.1%)
8	1 (10.0%)	0 (0.0%)
9	1 (10.0%)	0 (0.0%)
10	8 (80.0%)	0 (0.0%)
11	0 (0.0%)	0 (0.0%)
12	0 (0.0%)	7 (77.8%)
Comfort level with written communication		
Neither comfortable nor uncomfortable	1 (10.0%)	0 (0.0%)
Comfortable	1 (10.0%)	2 (22.2%)
Very comfortable	8 (80.0%)	7 (77.8%)
Device access		
Private device	10 (100.0%)	9 (100.0%)
Reliability of access to a device		
Reliable	10 (100.0%)	9 (100.0%)
Comfort level with technology		
Average	4 (40.0%)	1 (11.1%)

Advanced	3 (30.0%)	3 (33.3%)
Expert	3 (30.0%)	5 (55.6%)
Referral source		
Self-referral	10 (100.0%)	9 (100.0%)
Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)	0 (0.0%)	0 (0.0%)
Who recommended the iCBT program to the client		
Nobody	8 (80.0%)	6 (66.7%)
A care provider (e.g., family doctor, therapist, counsellor, etc.)	1 (10.0%)	1 (11.1%)
Family member	0 (0.0%)	1 (11.1%)
Employer	0 (0.0%)	1 (11.1%)
Other	1 (10.0%)	0 (0.0%)
How client heard about the program		
Self-directed online search	4 (40.0%)	5 (55.6%)
Social network/provider	5 (50.0%)	3 (33.3%)
Advertisement	1 (10.0%)	1 (11.1%)
Employment		
Full-time	4 (40.0%)	6 (66.7%)
Part-time	1 (10.0%)	1 (11.1%)
Self-employed	2 (20.0%)	0 (0.0%)
Not currently working in labour force	2 (20.0%)	2 (22.2%)
Unknown/Prefer not to answer	1 (10.0%)	0 (0.0%)
Housing		
Apartment/house (home owner)	3 (30.0%)	6 (66.7%)
Apartment/house (tenant)	7 (70.0%)	3 (33.3%)
Geographic Size		
Rural (Less than 1000 people)	2 (20.0%)	0 (0.0%)
Small (1,000 – 29,999)	1 (10.0%)	1 (11.1%)
Medium (30,000 – 99,999)	0 (0.0%)	1 (11.1%)
Large (100,000 – 999,999)	3 (30.0%)	4 (44.4%)
Urban (1 million and over)	3 (30.0%)	3 (33.3%)
Do not know/prefer not to answer	1 (10.0%)	0 (0.0%)
Overall health		
Poor	0 (0.0%)	1 (11.1%)
Fair	3 (30.0%)	1 (11.1%)
Good	3 (30.0%)	3 (33.3%)
Very good	3 (30.0%)	4 (44.4%)
Excellent	1 (10.0%)	0 (0.0%)
Types of conditions		

None	6 (60.0%)	3 (33.3%)
Chronic illness or condition	2 (20.0%)	4 (44.4%)
Other condition	1 (10.0%)	1 (11.1%)
Other mental illness disorder/condition	1 (10.0%)	0 (0.0%)
Learning disability	0 (0.0%)	1 (11.1%)
Do not know/prefer not to answer	0 (0.0%)	0 (0.0%)
Caregiver support		
No	10 (100.0%)	9 (100.0%)
Annual household income		
$0 – $29,999	2 (20.0%)	2 (22.2%)
$30,000 – $59,999	3 (30.0%)	1 (11.1%)
$60,000 – $89,999	3 (30.0%)	0 (0.0%)
$90,000 – $119,999	1 (10.0%)	2 (22.2%)
$120,000 – $149,999	1 (10.0%)	1 (11.1%)
$150,000+	0 (0.0%)	2 (22.2%)
Prefer not to answer	0 (0.0%)	1 (11.1%)
Number of people in household		
1	2 (20.0%)	2 (22.2%)
2	3 (30.0%)	4 (44.4%)
3	5 (50.0%)	1 (11.1%)
4	0 (0.0%)	2 (22.2%)
Faces occasional challenges meeting financial needs		
Yes	3 (30.0%)	2 (22.2%)
No	6 (60.0%)	6 (66.7%)
Prefer not to answer	1 (10.0%)	1 (11.1%)

Table 11. Therapist interviewee demographic data.

Demographic categories	Number of LifeWorks interviewees (N=5)	Number of MindBeacon interviewees (N=5)
Age		
20-35	2 (40.0%)	4 (80.0%)
36-50	1 (20.0%)	1 (20.0%)
50-65	2 (40.0%)	0 (0.0%)
66+	0 (0.0%)	0 (0.0%)
Gender		
Male	0 (0.0%)	1 (20.0%)
Female	5 (100%)	4 (80.0%)
Professional Designation		
Social worker	3 (60.0%)	5 (100.0%)

Registered psychotherapist	2 (40.0%)	0 (0.0%)
Years in current profession		
1 year or less	1 (20.0%)	1 (20.0%)
2-5 years	1 (20.0%)	3 (60.0%)
6-10 years	1 (20.0%)	1 (20.0%)
11-15 years	1 (20.0%)	0 (0.0%)
16+ years	1 (20.0%)	0 (0.0%)
Mental health issues therapist is able to support		
Social anxiety	5 (100.0%)	5 (100.0%)
Panic	5 (100.0%)	5 (100.0%)
Stress management	5 (100.0%)	5 (100.0%)
Generalized or health anxiety	5 (100.0%)	5 (100.0%)
Adjustment problems	5 (100.0%)	4 (80.0%)
Depression	5 (100.0%)	5 (100.0%)
Insomnia	3 (60.0%)	5 (100.0%)
Chronic pain	3 (60.0%)	5 (100.0%)
Post-traumatic stress disorder	4 (80.0%)	5 (100.0%)
Length of time delivering iCBT		
1-3 months	1 (20.0%)	0 (0.0%)
4-6 months	2 (40.0%)	2 (40.0%)
7-11 months	2 (40.0%)	2 (40.00%)
12+ months	0 (0.0%)	1 (20.0%)
Employment		
Full-time	4 (80.0%)	5 (100.0%)
Part-time	1 (20.0%)	0 (0.0%)
Language therapist is most comfortable communicating in with patients		
English	5 (100%)	5 (100.0%)
Dual (English + French)	2 (40.0%)	0 (0.0%)
Comfort level with technology		
Basic	0 (0.0%)	0 (0.0%)
Average	1 (20.0%)	0 (0.0%)
Advanced	4 (80.0%)	3 (60.0%)
Expert	0 (0.0%)	2 (40.0%)
Community size		
Small (1,000 – 29,999)	0 (0.0%)	0 (0.0%)
Medium (30,000 – 99,999)	1 (20.0%)	0 (0.0%)
Large (100,000 – 999,999)	1 (20.0%)	2 (40.0%)
Urban (1 million and over)	3 (60.0%)	3 (60.0%)

8.3 Appendix C: Survey Consent Form and Questions

Client Consent Form and Survey

CONSENT TO PARTICIPATE IN AN EVALUATION STUDY

Title: Evaluating an Internet-Based Cognitive Behavioural Therapy (iCBT) Program during the COVID-19 pandemic.

You are being invited to participate in an evaluation. This form explains the purpose of the evaluation, provides information about your role as a participant, possible risks and benefits, and the rights of participants.

Purpose:
We are conducting an evaluation about interned-based cognitive behavioural therapy (iCBT) programs offered by MindBeacon and Morneau Shepell (hereafter known as LifeWorks) during the COVID-19 pandemic. You are being invited to consider participating in this study because **you are 18 years of age or older AND are or have previously been a client of the iCBT Program during the COVID-19 pandemic**. The purpose of this study is to understand the impact of the COVID-19 iCBT self-referral program on the mental health and wellness of Ontarians. The objectives are as follows:

1. To describe the nature of the services delivered and the patient demographics of those who accessed the service.
2. To evaluate the effectiveness of the iCBT program in improving health outcomes.
3. To gain insight into client and health care provider experiences of accessing/delivering the program.

What your Participation Entails:
The survey will take approximately 10-15 minutes to complete. The survey is anonymous, and participants will not be asked to provide any identifying information. If you choose to enter the draw, we will ask for your contact information, which will only be accessible to members of the research team but otherwise the survey is anonymous.

Should you choose to complete the survey, you can enter a draw to win one of four $50 electronic gift cards of your choice from the following vendors: Amazon Canada, Shoppers Drug Mart, or Indigo. Only complete surveys will be eligible for the draw. You will be redirected to another webpage at the end of the survey if you would like to participate in this draw. Results from this survey will be aggregated and any answers you provide will be completely confidential.

Potential Harms & Benefits:

You may feel uncomfortable or stressed by discussing your experience and satisfaction using internet-based cognitive behavioural therapy provided by MindBeacon and LifeWorks. You will not directly benefit from this study however the findings of the study may contribute to a greater understanding of how iCBT could be improved to better meet the needs of patients.

Participation & Withdrawal:
This survey is voluntary, and you may stop participating or skip any questions while completing the survey. By completing the survey, you are providing consent for your answers to be used for quality improvement purposes meaning ways to improve the iCBT program in future. At the conclusion of the survey, you will have the option to withdraw from the survey (by closing the browser). Once you hit the '**SUBMIT**' button at the end of the survey questions, you will no longer be able to withdraw from the study.

Confidentiality & Privacy:
REDCap, a secure web-based program used for this survey, will provide us with anonymous data from respondents. REDCap is designed to collect responses and will not collect any information that could potentially identify you (e.g., IP address). Survey data is confidential and will be stored on local hospital servers at Women's College Hospital under the Personal Health Information Protection Act (PHIPA) compliant security measures. Only designated research personnel on the study team will have access to this information through password-protected files. Data will be permanently deleted in accordance with the guidelines of the Research Ethics Board ten years after the project is completed.

If you wish to enter the draw, we will need your name and contact information. This information will be stored separately from your responses on the survey.

Consent to Participate:
Your consent to participate in this survey will be implied by clicking the '**I agree**' button to continue to the survey. By entering your name and email address for the draw, you confirm that you will only submit ONE survey and will not submit more than ONE entry to this survey.

Who to Contact:
Should you have any questions about the survey, please contact:

Dr. Onil Bhattacharyya
Principal Investigator
Women's College Hospital, Institute for Health System Solutions and Virtual Care
Toronto, Ontario
Email: onil.bhattacharyya@wchospital.ca
Tel: 416-323-6400 ext. 5217

Dr. Rebecca Liu
Project Lead
Women's College Hospital, Institute for Health System Solutions and Virtual Care

Toronto, Ontario
Email: rebecca.liu@wchospital.ca

Women's College Ethics Board Contact:
Women's College Hospital Research Ethics Board (REB) has reviewed this study. If you have any questions regarding your rights as a participant, please contact the Women's College Hospital Research Ethics Board Coordinator, Ms. Melissa Sidhu by email: ethics@wchospital.ca or by phone (416) 351-3732 x2723.
Your consent to participate in the survey is demonstrated by your voluntary completion and submission of this survey.

By submitting this survey, you are:

- Acknowledging you have read this information and agree to participate in this study
- Are agreeing to use of your anonymous survey responses for quality improvement purposes and for potential scientific publications;

<< ☐ Yes, I agree and consent to participate in this survey>> TO BEGIN THE SURVEY

<< ☐ No, I do not agree and do not consent to participate in this survey>>

Thank you for taking the time to consider participation! You will now be asked two questions to assess your eligibility to complete the survey.

(Next Page)

Eligibility

1. **When did you start using iCBT program through LifeWorks or MindBeacon?**

dropdown menu

☐ Before March 2020 >>>Thank you for taking the time to consider participation! We are only considering clients that used the iCBT program through LifeWorks or MindBeacon after March 2020
☐ I have not yet started using iCBT >>>Thank you for taking the time to consider participation! We are only considering clients that have started using iCBT program through LifeWorks or MindBeacon
☐ March 2020
☐ April 2020
☐ May 2020
☐ June 2020

☐ July 2020
☐ August 2020
☐ September 2020
☐ October 2020
☐ November 2020
☐ December 2020
☐ January 2021
☐ February 2021
☐ March 2021
☐ April 2021
☐ May 2021
☐ June 2021
☐ July 2021
☐ August 2021
☐ September 2021
☐ Don't know
☐ Prefer not to answer

2. **When did you finish using the iCBT program through LifeWorks or MindBeacon?**

dropdown menu

☐ Before March 2020 >>>Thank you for taking the time to consider participation! We are only considering clients that used the iCBT program through LifeWorks or MindBeacon after March 2020
☐ March 2020
☐ April 2020
☐ May 2020
☐ June 2020
☐ July 2020
☐ August 2020
☐ September 2020
☐ October 2020
☐ November 2020
☐ December 2020
☐ January 2021
☐ February 2021
☐ March 2021
☐ April 2021

☐ May 2021
☐ June 2021
☐ July 2021
☐ August 2021
☐ September 2021
☐ I am currently enrolled in the iCBT program through MindBeacon or LifeWorks
☐ Don't know
☐ Prefer not to answer

3. **When I registered for the iCBT program through LifeWorks or MindBeacon, I was 18 years of age or older.**

<< ☐ Yes, at the time of registration in the iCBT program, I was 18 years of age or older. CONTINUE TO SURVEY (NEXT PAGE)

<< ☐ No, at the time of registration in the iCBT program I was below 18 years of age. Thank you for taking the time to consider participation! We are only considering iCBT clients that were 18 years of age or older at the time of registration to the program for the purposes of this survey.

4. **When I registered for the iCBT program through LifeWorks or MindBeacon, I had mild to moderate symptoms of anxiety and/or depression:**

<< ☐ Yes, at the time of registration in the iCBT program, I had mild to moderate symptoms of anxiety and/or depression. CONTINUE TO SURVEY (NEXT PAGE)

<< ☐ No, at the time of registration in the iCBT program I did NOT have mild to moderate symptoms of anxiety and/or depression. Thank you for taking the time to consider participation! We are only considering iCBT clients that had mild to moderate symptoms of anxiety and/or depression at the time of registration to the program for the purposes of this survey.

(Next Page)

Section 1. Demographics

Only complete surveys will be eligible for the draw. You will be redirected to another webpage at the end of the survey if you would like to participate in the draw to win 1 of 4, $50 electronic gift cards to Amazon Canada, Shoppers Drug Mart, or Indigo.

We are going to start by asking some personal questions regarding your demographic information. The purpose of these questions is to understand who accessed the iCBT program.

We will also use this information to know whether we are capturing a representative and diverse participant population.

The questions are voluntary, and you can choose 'prefer not to answer' or skip any or all the questions. This information will be visible only to study personnel. If used in research, this information will be combined with data from all other participants and your information will not be identifiable.

1. **What year were you born?**

<drop down>

☐ 2003…-> 1920
☐ Prefer not to answer

2. **Overall, how would you describe your level of comfort with using computers or technology?**

☐ None
☐ Basic (e.g., I can log into email, require some assistance to)
☐ Average (e.g., I can answer emails and browse the internet, require little to no assistance)
☐ Advanced (e.g., I can independently solve a problem by navigating some webpages and applications)
☐ Expert (e.g., I can independently solve a problem with multiple steps across webpages and applications)

3. **What is your gender identity?**

Gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people. (Source: CIHR, 2020)

☐ Woman
☐ Man
☐ Trans woman
☐ Trans man
☐ Two-Spirit
☐ Gender nonconforming/Genderqueer
☐ Gender fluid
☐ Gender neutral
☐ Androgynous
☐ Non-binary
☐ Do not know

☐ Prefer not to answer
☐ Prefer to self-describe: _____

4. **What language(s) do you feel most comfortable communicating in with your healthcare provider? (Choose all that apply)**

☐ Amharic
☐ Arabic
☐ ASL
☐ Bengali

☐ Cantonese
☐ Cree
☐ Czech
☐ English
☐ French
☐ Greek
☐ Gujarati
☐ Hindi
☐ Hungarian
☐ Inuktitut
☐ Italian
☐ Karen
☐ Korean
☐ Mandarin
☐ Nepali
☐ Ojibwe
☐ Oji-Cree
☐ Persian (Farsi, Dari, Tajik)
☐ Polish
☐ Portuguese
☐ Punjabi
☐ Russian
☐ Serbian
☐ Slovak
☐ Somali
☐ Spanish
☐ Tagalog
☐ Tamil
☐ Tigrinya
☐ Turkish

☐ Twi
☐ Ukrainian
☐ Urdu
☐ Vietnamese
☐ Other, please specify: _____
☐ Prefer not to answer

5. **Which of the following best describes your racial or ethnic background?**

Race is a social construct. This means that society forms ideas of race based on geographic, historical, political, economic, social, and cultural factors, as well as physical traits, even though none of these can legitimately be used to classify groups of people. (Source: CIHR, 2019)

Ethnicity denotes groups that share a common identity-based ancestry, language, or culture. It is often based on religion, beliefs, and customs as well as memories of migration or colonization. (Source: Cornell & Hartmann, 2007)

☐ Black (African, Afro-Caribbean, African-Canadian descent)
☐ East Asian (Chinese, Korean, Japanese, Taiwanese descent)
☐ Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent)
☐ Indigenous (First Nations, Métis, Inuit descent)
☐ Latino (Latin American, Hispanic descent)
☐ Middle Eastern (Arab, Persian, e.g. Afghan, Iranian, Lebanese, Turkish, Kurdish, etc.)
☐ South Asian (South Asian descent, e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean, etc.)
☐ White (European descent)
☐Prefer to self-describe: _____
☐ Prefer not to answer

6. **What is the highest level of education you have completed?**

☐ Primary or middle school
☐ High school
☐ Trade or vocational diploma/certificate
☐ College degree/diploma/certificate
☐ Undergraduate degree
☐ Master's degree
☐ Professional degree (e.g., PhD, MD, JD, DDS, etc.)
☐ None of the above
☐ Other, (please specify): _____
☐ Prefer not to answer

7. **Which best describes your employment situation?**

☐ Full Time (30+ hours per week)
☐ Part Time (less than 30 hours per week)
☐ Casual, on-call or short-term contract
☐ Seasonal
☐ Working for others
☐ Self-employed
☐ Other (please specify): _____
☐ Not currently working in the labour force
☐ Prefer not to answer

[Insert branching logic, IF answer is **Not currently working in labour force,** THEN display Question 8, ELSE display Question 11]

8. **Since when have you not been working in the labour force?**

☐ Before March 14, 2020 (before COVID-19 pandemic)
☐ After March 14, 2020 (due to COVID-19 pandemic)
☐ After March 14, 2020 (**NOT** due to COVID-19 pandemic)
☐ Prefer not to answer

9. **Are you seeking employment?**

☐ Yes
☐ No
☐ Prefer not to answer

10. **Do you identify with any of the following groups? (Choose all that apply)**

☐ Homemaker
☐ Caregiver
☐ Student
☐ Retired
☐ On disability support
☐ Prefer not to answer

11. **What type of housing do you live in?**

☐ Apartment/house (Homeowner)
☐ Apartment/house (Tenant)
☐ Boarding home
☐ Correctional facility
☐ Group home

☐ Homeless/street-based
☐ Shelter/hostel
☐ Supportive housing
☐ Transitional housing
☐ Long term care home/assisted living facility
☐ Do not know
☐ Other, (please specify): _____
☐ Prefer not to answer

12. **How would you describe where you live?**

☐Rural (less 1,000 people)
☐Small population centres (1,000 to 29,999 people)
☐Medium population centres (30,000 to 99,999 people)
☐Large population centres (100,000 to 999,999 people)
☐Urban centres (1 million people and over)
☐Do not know
☐Prefer not to answer

13. **In general, how would you rate your overall health?**

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. (Source: WHO, 1947)

☐ Poor
☐ Fair
☐ Good
☐ Very good
☐ Excellent
☐ Do not know
☐ Prefer not to answer

14. **In addition to anxiety and/or depression, do you have any of the following? (Choose all that apply)**

☐ Chronic illness
☐ Acute illness
☐ Sensory disability (e.g., hearing or vision loss)
☐ Developmental disability
☐ Learning disability
☐ Physical disability

☐ Other mental illness disorders/conditions
☐ None
☐ Do not know
☐ Other (please specify): _____
☐ Prefer not to answer

15. **Do you need a caregiver (a family member helping with your care or a paid caregiver such as a nurse or a personal support worker)?**

☐ Yes
☐ No

☐ Other (please specify): _____
☐ Prefer not to answer

16. **What is your annual household income (before taxes)?**

☐$0 - $29,999
☐$30,000 - $59,999
☐$60,000 - $89,999
☐$90,000 - $119,999
☐$120,000 - $149,999
☐$150,000 +
☐ Prefer not to answer
☐ Do not know

17. **How many people does this income support, including yourself? _____ person(s)**

☐ Prefer not to answer
☐ Do not know

18. **Do you face occasional challenges in meeting financial needs at the end of the month?**

☐ Yes
☐ No

☐ Do not know
☐ Other (please specify): _____
☐ Prefer not to answer

19. **How many people live with you, including yourself? _____person(s)**

☐ Prefer not to answer

20. **From which service provider do you currently use the iCBT program? (Choose all that apply)**

☐ MindBeacon
☐ Morneau Shepell's (hereafter known as LifeWorks) AbilitiCBT

☐ Prefer not to answer

21. **If you previously accessed or are currently accessing iCBT through MindBeacon and/or LifeWorks, what module or playlist have you completed up till?**

Note: We recognize that some users will have accessed iCBT through MindBeacon and others through LifeWorks or through both. Thus, we are using the terms "Module" and "Playlist" interchangeably.

dropdown menu
☐ Module 1/Playlist 1
☐ Module 2/Playlist 2
☐ Module 3/Playlist 3
☐ Module 4/Playlist 4
☐ Module 5/Playlist 5
☐ Module 6/Playlist 6
☐ Module 7/Playlist 7
☐ Module 8/Playlist 8
☐ Module 9/Playlist 9
☐ Module 10/Playlist 10
☐ Module 11/Playlist 11
☐ Module 12/Playlist 12
☐ Don't know
☐ Prefer not to answer

22. **I access the iCBT program using a:**
☐ Shared device
☐ Private device

23. **On average, do you have reliable access to a device to use the iCBT program?**
☐ Yes

☐ No
☐ Sometimes
☐ Do not know

24. **Please rate your level of comfort with written communication.**

☐ Very comfortable
☐ Comfortable
☐ Neither comfortable nor uncomfortable
☐ Uncomfortable
☐ Very uncomfortable

25. **How were you referred to the iCBT program?**

☐ Self-referral (i.e., I went on the internet and completed the intake assessment)
☐Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)
☐Other (please specify):_____

[Insert branching logic: IF answer is **Self-referral,** THEN display Question 25, ELSE display Question 26]

26. **Who recommended the iCBT program to you?**

☐ Nobody
☐ Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)
☐ Family member
☐ Friend
☐ Colleague/Co-worker
☐ Employer
☐ Other (please specify): _____

27. **How did you hear/learn about the program? (e.g., Twitter, Facebook, government website, etc.): _____**

(Next Page)

Section 2. Evaluation of iCBT

Acceptance

Questions in this section will assess the acceptability of the iCBT program and if the program was agreeable and palatable to your preferences. These questions are from a validated tool called the Acceptability of Intervention Measure (Source: Weiner et. al., 2017)

1. **The iCBT program is <u>appealing</u> to me.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

2. **I <u>like</u> the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

3. **I <u>welcome use of</u> the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

4. **The iCBT program <u>meets my approval</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

5. **Please provide additional comments to evaluate the acceptability of the iCBT program:**

[Open-ended]

(Next Page)

Satisfaction

Questions in this section will assess your satisfaction with the iCBT program. Specifically, we are interested in where or not the program met your expectations, and your perceptions of the quality of the program.

6. **Please rate the quality of the iCBT program.**

☐ Very good
☐ Good
☐ Acceptable
☐ Poor
☐ Very poor

7. **I was able to get the support that I needed from the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

8. **The iCBT program was timely and worked within my schedule.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

9. **The iCBT program increased my knowledge on managing my mental health.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

10. **The iCBT program <u>improved my attitude</u> toward managing my mental health.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

11. **The iCBT program <u>provided motivation</u> for managing my mental health.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

12. **The iCBT program <u>influenced behaviour changes</u> in managing my mental health.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

13. **I would <u>recommend the iCBT program</u> to my network (e.g., friends, family, colleagues)?**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

14. **Please rate your <u>overall satisfaction</u> with the iCBT program.**

☐ Completely satisfied
☐ Satisfied
☐ Neither satisfied nor dissatisfied
☐ Dissatisfied
☐ Completely dissatisfied

15. **Please provide additional comments to evaluate your satisfaction with the iCBT program:**

[Open-ended]

(Next Page)

Appropriateness

Questions in this section will assess the appropriateness of the iCBT program, including the perceived fit, relevance, and compatibility of the program to address mild to moderate symptoms of anxiety and/or depression. These questions are from a validated tool called the Intervention Appropriateness Measure (Source: Weiner et. al., 2017)

16. **The iCBT program seems <u>fitting</u> for addressing my mental health needs.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

17. **The iCBT program seems <u>suitable</u> for addressing my mental health needs.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

18. **The iCBT program seems <u>applicable</u> for addressing my mental health needs.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

19. **The iCBT program seems like a <u>good match</u> to address my mental health needs.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

20. **Please provide additional comments to evaluate the appropriateness of the iCBT program:**

[Open-ended]

(Next Page)

Feasibility

Questions in this section will assess the feasibility of the iCBT program and the extent to which in can be successfully used in the real-world. These questions are from a validated tool called the Feasibility of Intervention Measure (Source: Weiner et. al., 2017)

21. **The iCBT program seems <u>easy to implement</u> in my life.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

22. **The iCBT program seems like a <u>good treatment option</u> for managing my mental health.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

23. **The iCBT program seems <u>doable</u>.**

☐ Completely agree
☐ Agree

☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

24. **The iCBT program seems <u>easy to use</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

25. **I access the iCBT program using a:**

☐ Shared device
☐ Personal device
☐ Other (please specify):

26. **I have dependably consistent access to a device that makes it easy for me to access and use the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

27. **Please provide additional comments to evaluate the feasibility of the iCBT program:**

[Open-ended]

(Next Page)

Transparency & Privacy

Questions in this section will assess the transparency and privacy of the iCBT program including evaluating clarity of security and program policies, finding security and program policies, and how those policies work to protect your personal health information.

28. **The iCBT program's security and privacy policies are clear to me.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

29. **The iCBT program's security and privacy policies are easy to find.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

30. **The iCBT program's security and privacy policies protect my personal health information.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

31. **Please provide additional comments to evaluate the transparency and privacy of the iCBT program:**

[Open-ended]

(Next Page)

Functionality

Questions in this section will evaluate the functionality of the iCBT program and navigating through key iCBT program components including screening, activities, and therapist communications.

32. **The iCBT program's <u>screening/intake assessment</u> was easy to navigate and follow.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

33. **The iCBT program's <u>weekly tailored resources and activities</u> were easy to navigate and follow.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

34. **The iCBT therapist's <u>communication and guidance</u> was easy to navigate and follow.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

35. **Please provide additional comments to evaluate the functionality of the iCBT program:**

[Open-ended]

(Next Page)

Usability

Questions in this section will assess how user-friendly the iCBT program was and engagement with the iCBT therapist.

36. **The iCBT program is <u>engaging</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

37. **It was <u>easy to engage</u> with my therapist through the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

38. **It was <u>easy to build rapport</u> with my therapist through the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

39. **Please provide additional comments to evaluate the usability of the iCBT program:**

[Open-ended]

(Next Page)

Supported Platforms and Interoperability

Questions in this section will evaluate how well the iCBT program functions on and across different operating systems and platforms.

40. **Which operating system(s) did you use to access the iCBT program? (Choose all that apply)** e.g., MacBooks use Apple iOS, Google Pixels uses Google Android, Lenovo laptops use Microsoft Windows.

☐ Apple iOS

☐ Google Android OS
☐ Microsoft Windows
☐ Linux OS
☐ Other (please specify):
☐ Do not know

41. **Which device(s)/platform(s) did you use to access the iCBT program? (Choose all that apply)**

☐ Smartphone
☐ Tablet
☐ Laptop computer
☐ Desktop computer
☐ Other (please specify):

[Insert Skip logic if selected MORE than 1 device/platform]

42. **The iCBT program maintains my profile preferences and information when I move across devices (mobile and desktop).**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

43. **Please provide additional comments to evaluate the interoperability and function across platforms of the iCBT program:**

[Open-ended]

(Next Page)

Overall Impressions

44. **What are your overall impressions of the iCBT program, including anything you would change to improve it for other clients?**

[Open-ended]

End of survey questions
Only complete surveys will be eligible for the draw. You will be redirected to another webpage at the end of the survey if you would like to participate in the draw to win 1 of 4, $50 electronic gift cards to Shoppers Drug Mart, Indigo, OR Amazon Canada.

<<SUBMIT>>

(Next Page)

Thank you for completing the survey!

If you are interested in entering the draw to win one of four, $50 electronic gift cards to your choice of Amazon Canada, Shoppers Drug Mart, or Indigo, please agree to leave your contact information.

You will be redirected to another webpage if you would like to participate in this draw, otherwise, you may close the survey window to not participate in the draw.

The draws will occur in late 2021 and winners will be contacted by email.

<< ☐ Yes, I agree to participate in the draw.>> CONTINUE TO NEXT PAGE

OR

<< ☐ No, I do not want to participate in the draw.>> Thank you for taking the time to participate in our survey!

(Next Page)

To enter in the draw, please leave your name and email address. You will be notified by email if you win.
By entering your name and email address for the draw, you confirm that you will only submit ONE survey and will not submit more than ONE entry to this survey.

Name: _____

Email Address: _____

As part of the evaluation, WIHV is also conducting interviews on this topic.
If you are interested in sharing your experiences of using iCBT in more detail in an interview, please select YES to be contacted. You will be redirected to another webpage to enter your name and email.

Responding to this statement will not affect your chances in any way of winning the draw nor will it be linked to your survey responses.

<< ☐ Yes, I agree to participate in an interview.>> CONTINUE TO SEPARATE PAGE

OR

<< ☐ No, I do not want to participate in an interview.>> Thank you for taking the time to participate in our survey!

(Next Page)

To participate in an interview, please leave your name and email address.
You will be contacted by email by a member of the research team.

Your decision to participate in this interview will not affect your chances in any way of winning the draw nor will it be linked to your survey responses.

Name: _____

Email Address: _____

Thank you for taking the time to participate in our survey and for considering in taking part in an interview!

(End)

Provider Consent Form and Survey

CONSENT TO PARTICIPATE IN AN EVALUATION STUDY

Title: Evaluating an Internet-Based Cognitive Behavioural Therapy (iCBT) Program during the COVID-19 pandemic.

You are being invited to participate in an evaluation. This form explains the purpose of the evaluation, provides information about your role as a participant, possible risks and benefits, and the rights of participants.

Purpose:
We are conducting an evaluation about interned-based cognitive behavioural therapy (iCBT) programs offered by MindBeacon and Morneau Shepell (hereafter known as LifeWorks) during the COVID-19 pandemic. You are being invited to consider participating in this study because **you are a health care provider who has delivered the iCBT Program during the COVID-19 pandemic.** The purpose of this study is to understand the impact of the COVID-19 iCBT self-referral program on the mental health and wellness of Ontarians. The objectives are as follows:

1. To describe the nature of the services delivered and the provider demographics of those who provided the service.
2. To evaluate the effectiveness of the iCBT program in improving health outcomes.
3. To gain insight into client and health care provider experiences of accessing/delivering the program.

What your Participation Entails:
The survey will take approximately 10-15 minutes to complete. The survey is anonymous, and participants will not be asked to provide any identifying information. If you choose to enter the draw, we will ask for your contact information, which will only be accessible to members of the research team but otherwise the survey is anonymous.

Should you choose to complete the survey, you can enter a draw to win one of four, $50 electronic gift cards to either the Amazon Canada, Shoppers Drug Mart, or Indigo. Only complete surveys will be eligible for the draw. You will be redirected to another webpage at the end of the survey if you would like to participate in this draw. Results from this survey will be aggregated and any answers you provide will be completely confidential.

Potential Harms & Benefits:
You may feel uncomfortable or stressed by discussing your experience and satisfaction using internet-based cognitive behavioural therapy provided by MindBeacon and LifeWorks. You will not directly benefit from this study however the findings of the study may contribute to a greater understanding of how iCBT could be improved to better meet the needs of patients.
Participation & Withdrawal:

This survey is voluntary, and you may stop participating or skip any questions while completing the survey. By completing the survey, you are providing consent for your answers to be used for quality improvement purposes meaning ways to improve the iCBT program in future. At the conclusion of the survey, you will have the option to withdraw from the survey (by closing the browser). Once you hit the '**SUBMIT**' button at the end of the survey questions, you will no longer be able to withdraw from the study.

Confidentiality & Privacy:
REDCap, a secure web-based program used for this survey, will provide us with anonymous data from respondents. REDCap is designed to collect responses and will not collect any information that could potentially identify you (e.g., IP address). Survey data is confidential and will be stored on local hospital servers at Women's College Hospital under the Personal Health Information Protection Act (PHIPA) compliant security measures. Only designated research personnel on the study team will have access to this information through password-protected files. Data will be permanently deleted in accordance with the guidelines of the Research Ethics Board ten years after the project is completed.

If you wish to enter the draw, we will need your name and contact information. This information will be stored separately from your responses on the survey.

Consent to Participate:
Your consent to participate in this survey will be implied by clicking the '**I agree**' button to continue to the survey. By entering your name and email address for the draw, you confirm that you will only submit ONE survey and will not submit more than ONE entry to this survey.

Who to Contact:
Should you have any questions about the survey, please contact:
Dr. Onil Bhattacharyya
Principal Investigator
Women's College Hospital, Institute for Health System Solutions and Virtual Care
Toronto, Ontario
Email: onil.bhattacharyya@wchospital.ca
Tel: 416-323-6400 ext. 5217

Dr. Rebecca Liu
Project Lead
Women's College Hospital, Institute for Health System Solutions and Virtual Care
Toronto, Ontario
Email: rebecca.liu@wchospital.ca

Women's College Ethics Board Contact:
Women's College Hospital Research Ethics Board (REB) has reviewed this study. If you have any questions regarding your rights as a participant, please contact the Women's College Hospital

Research Ethics Board Coordinator, Ms. Melissa Sidhu by email: ethics@wchospital.ca or by phone (416) 351-3732 ext. 2723.-

Your consent to participate in the survey is demonstrated by your voluntary completion and submission of this survey.

By submitting this survey, you are:

- Acknowledging you have read this information and agree to participate in this study
- Are agreeing to use of your anonymous survey responses for quality improvement purposes and for potential scientific publications;

<< ☐ Yes, I agree and consent to participate in this survey>> TO BEGIN THE SURVEY

<< ☐ No, I do not agree and do not consent to participate in this survey>>

Thank you for taking the time to consider participation!

(Next Page)

Section 1. Demographics

Only complete surveys will be eligible for the draw. You will be redirected to another webpage at the end of the survey if you would like to participate in the draw to win 1 of 4, $50 electronic gift cards to Amazon Canada, Shoppers Drug Mart, or Indigo.

We are going to start by asking some personal questions regarding your demographic information. The purpose of these questions is to understand who is providing the iCBT program. We will also use this information to know whether we are capturing a representative and diverse participant population.

The questions are voluntary, and you can choose 'prefer not to answer' or skip any or all of the questions. This information will be visible only to study personnel. If used in research, this information will be combined with data from all other participants and your information will not be identifiable.

1. **What is your professional designation? (Choose all that apply)**

☐ Psychologist
☐ Psychological Associate
☐ Psychologist (supervised practice)
☐ Resident or Intern in Clinical Psychology
☐ Social Worker
☐ Registered Psychotherapist
☐ Counselor
☐ Other, please specify: _____

2. **How many years have you been working in your current profession?**

(Please round up the number of years you worked e.g., If you worked 5.5 years, please round to 6 years)

☐ 1 year or less
☐ 2-5 years
☐ 6-10 years
☐ 11-15 years
☐ 16+ years

3. **Please specify the population(s) with which you are licensed to work (if applicable). (Choose all that apply)**

☐ Child

☐ Adolescent
☐ Adult
☐ Couples
☐ Families
☐ Geriatric
☐ Other, please specify: _____

4. **Please specify what mental health issues you are able to support clients with. (Choose all that apply)**

☐ Social anxiety
☐ Panic
☐ Stress management
☐ Generalized or Health anxiety
☐ Adjustment problems
☐ Depression
☐ Insomnia
☐ Chronic Pain
☐ Post-traumatic stress disorder
☐ Other, please specify: _____

5. **How long have you been delivering assisted therapy through the iCBT program since May 2020?**

(Please round up the number of months you have delivered iCBT e.g., If you delivered iCBT for 6.5 months, please round to 7 months)

☐ Less than a month
☐ 1-3 months
☐ 4-6 months
☐ 7-11 months
☐ 12+ months

6. **Overall, how would you describe your level of comfort with using computers or technology?**

☐ None

☐ Basic (e.g., I can log into email, require some assistance to)
☐ Average (e.g., I can answer emails and browse the internet, require little to no assistance)
☐ Advanced (e.g., I can independently solve a problem by navigating some webpages and applications)
☐ Expert (e.g., I can independently solve a problem with multiple steps across webpages and applications)

7. **What year were you born?**

<drop down>
☐ 2003 ->… 1920
☐ Prefer not to answer

8. **What is your gender identity?**

☐ Woman
☐ Man
☐ Trans woman
☐ Trans man
☐ Two-Spirit
☐ Gender nonconforming/Genderqueer
☐ Gender fluid
☐ Gender neutral
☐ Androgynous
☐ Non-binary
☐ Do not know
☐ Prefer not to answer
☐ Prefer to self-describe: _____

Gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people. (Source: CIHR, 2020)

9. **What best describes the community size where you primarily provide care? (Choose all that apply)**

☐Rural (less 1,000 people)
☐Small population centres (1,000 to 29,999 people)
☐Medium population centres (30,000 to 99,999 people)
☐ Large population centres (100,000 to 999,999 people)
☐ Urban centres (1 million people and over)
☐ Do not know
☐ Prefer not to answer

10. **What language(s) do you feel most comfortable communicating in with your clients? (Choose all that apply)**

☐ Amharic
☐ Arabic
☐ ASL
☐ Bengali

☐ Cantonese
☐ Cree
☐ Czech
☐ English
☐ French
☐ Greek
☐ Gujarati
☐ Hindi
☐ Hungarian
☐ Inuktitut
☐ Italian
☐ Karen
☐ Korean
☐ Mandarin
☐ Nepali
☐ Ojibwe
☐ Oji-Cree
☐ Persian (Farsi, Dari, Tajik)

☐ Polish

☐ Portuguese
☐ Punjabi
☐ Russian
☐ Serbian
☐ Slovak
☐ Somali
☐ Spanish
☐ Tagalog
☐ Tamil
☐ Tigrinya
☐ Turkish
☐ Twi
☐ Ukrainian
☐ Urdu
☐ Vietnamese
☐ Other, please specify: _____
☐ Prefer not to answer

11. **Which of the following best describes your racial or ethnic background?**

☐ Black (African, Afro-Caribbean, African-Canadian descent)
☐ East Asian (Chinese, Korean, Japanese, Taiwanese descent)
☐ Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent)
☐ Indigenous (First Nations, Métis, Inuit descent)
☐ Latino (Latin American, Hispanic descent)
☐ Middle Eastern (Arab, Persian, e.g. Afghan, Iranian, Lebanese, Turkish, Kurdish, etc.)
☐ South Asian (South Asian descent, e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean, etc.)
☐ White (European descent)
☐ Prefer to self-describe: _____
☐ Prefer not to answer

Race is a social construct. This means that society forms ideas of race based on geographic, historical, political, economic, social and cultural factors, as well as physical traits, even though none of these can legitimately be used to classify groups of people. (Source: CIHR, 2019)

Ethnicity denotes groups that share a common identity-based ancestry, language, or culture. It is often based on religion, beliefs, and customs as well as memories of migration or colonization. (Source: Cornell & Hartmann, 2007)

12. **From which service provider do you currently deliver the iCBT program? (Choose all that apply)**

☐ MindBeacon
☐ Morneau Shepell hereafter known as LifeWorks

☐ Prefer not to answer

13. **What describes the basis at which you are providing iCBT through MindBeacon or LifeWorks?**

☐ Full-time
☐ Part-time
☐ Other, please specify: _____

(Next Page)

Section 2. Evaluation of iCBT

Acceptance

Questions in this section will assess the acceptability of the iCBT program and if the program was agreeable and palatable to your preferences. These questions are from a validated tool called the Acceptability of Intervention Measure (Source: Weiner et. al., 2017)

1. **The iCBT program is <u>appealing</u> to me as a mental health care provider.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

2. **As a mental health care provider, I <u>like</u> the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

3. **As a mental health care provider, I <u>welcome use of</u> the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

4. **The iCBT program <u>meets my approval</u> as a mental health care provider.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

5. **Please provide additional comments to evaluate the acceptability of the iCBT program:**

[Open-ended]

(Next Page)

Satisfaction

Questions in this section will assess your satisfaction with the iCBT program. Specifically, we are interested in where or not the program met your expectations, and your perceptions of the quality of the program.

6. **Please rate the <u>quality</u> of the iCBT program.**

☐ Very good
☐ Good
☐ Acceptable
☐ Poor
☐ Very poor

7. **The iCBT program <u>meets my expectations</u> as a mental health care provider.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree

☐ Completely disagree

8. **I would <u>recommend</u> the iCBT program to other mental health care providers to share with their clients?**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

9. **I plan to <u>continue delivering</u> the iCBT program to provide therapy to clients.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

10. **Please rate your overall <u>satisfaction</u> with the iCBT program.**

☐ Completely satisfied
☐ Satisfied
☐ Neither satisfied nor dissatisfied
☐ Dissatisfied
☐ Completely dissatisfied

11. **Please provide additional comments to evaluate your satisfaction with the iCBT program:**

[Open-ended]

(Next Page)

Appropriateness

Questions in this section will assess the appropriateness of the iCBT program including the perceived fit, relevance, and compatibility of the program to address mild to moderate symptoms of anxiety and/or depression. These questions are from a validated tool called the Intervention Appropriateness Measure (Source: Weiner et. al., 2017)

12. **The iCBT program seems fitting for managing mild to moderate depression and/or anxiety related disorders.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

13. **The iCBT program seems suitable for managing mild to moderate depression and/or anxiety related disorders.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

14. **The iCBT program seems applicable for managing mild to moderate depression and/or anxiety related disorders.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

15. **The iCBT program seems like a good match for managing mild to moderate depression and/or anxiety related disorders.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

16. **Please provide additional comments to evaluate the appropriateness of the iCBT program:**

[Open-ended]

(Next Page)

Feasibility

Questions in this section will assess the feasibility of the iCBT program and the extent to which in can be successfully used in the real-world. These questions are from a validated tool called the Feasibility of Intervention Measure (Source: Weiner et. al., 2017)

17. **The iCBT program seems <u>easy to implement</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

18. **The iCBT program seems like a <u>good treatment option</u> for managing mild to moderate mental health needs.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

19. **The iCBT program seems <u>doable</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

20. **The iCBT program seems <u>easy to use</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

21. **Please provide additional comments to evaluate the feasibility of the iCBT program:**

[Open-ended]

(Next Page)

Transparency & Privacy

Questions in this section will assess the transparency and privacy of the iCBT program including evaluating clarity of security and program policies, finding security and program policies, and how those policies work to protect your personal health information.

22. **The iCBT program's security and privacy policies are <u>easy to find</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

23. **The iCBT program's security and privacy policies are <u>clear to me</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

24. **The iCBT program's security and privacy <u>policies protect my clients' personal health information</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

25. **Please provide additional comments to evaluate the transparency and privacy of the iCBT program:**

[Open-ended]

(Next Page)

Functionality

Questions in this section will evaluate the functionality of the iCBT program and navigating through key iCBT program components including screening, activities, and therapist communications.

26. **The iCBT program's functions are <u>easy to navigate and follow</u>.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

27. **Please provide additional comments to evaluate the functionality of the iCBT program:**

[Open-ended]

Clinical Criteria

Questions in this section will evaluate the alignment of the iCBT program and its respective components with best clinical practice guidelines and evidence to treat mental illnesses.

28. **The iCBT program's <u>self-referral assessment and process</u> aligns with clinical evidence and guidelines for <u>diagnosing</u> mental illnesses?**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

29. **The iCBT program aligns with clinical evidence and guidelines for <u>managing</u> mental illnesses?**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

30. **Please provide additional comments to evaluate the clinical criteria of the iCBT program:**

[Open-ended]

(Next Page)

Usability

Questions in this section will assess how user-friendly the iCBT program was and engagement with the iCBT therapist.

31. **It was <u>simple</u> to use the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

32. **It was <u>easy to learn</u> to use the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

33. **I believe I could <u>become productive quickly</u> using the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree

☐ Disagree
☐ Completely disagree

34. **It was <u>easy to engage</u> with clients through the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

35. **It was <u>easy to build rapport</u> with clients through the iCBT program.**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

(Next Page)

Supported Platforms and Interoperability

Questions in this section will evaluate how well the iCBT program functions on and across different operating systems and platforms.

36. **Which operating system(s) did you use to access the iCBT program? (please choose all that apply)**

e.g., MacBooks use Apple iOS, Google Pixels uses Google Android, Lenovo laptops use Microsoft Windows.

☐ Apple iOS
☐ Google Android OS
☐ Microsoft Windows
☐ Linux OS
☐ Other (please specify):
☐ Do not know

37. **Which device(s)/platform(s) did you use to access the iCBT program? (please choose all that apply)**

☐ Smartphone
☐ Tablet
☐ Laptop computer
☐ Desktop computer
☐ Other (please specify):

[Insert Skip logic if selected MORE than 1 device/platform]

38. **The iCBT program maintains my profile preferences and information when I move across devices (mobile and desktop).**

☐ Completely agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Completely disagree

(Next Page)

Overall Impressions

39. **Was there any communication between yourself and the patient's family doctor?**

☐ Yes
☐ No

a. **If YES, Please describe.**

[Open-ended]

40. **If the patient was referred to the service by a healthcare professional, was there any communication between yourself and that healthcare professional? Please describe.**

☐ Yes
☐ No

40. **If YES, Please describe.**

[Open-ended]

41. **What are your overall impressions of the iCBT program, including anything you would change to improve it for other clients?**

[Open-ended]

End of survey questions

Only complete surveys will be eligible for the draw. You will be redirected to another webpage at the end of the survey if you would like to participate in the draw to win 1 of 4, $50 electronic gift cards to Shoppers Drug Mart, Indigo, OR Amazon Canada.

<<SUBMIT>>

(Next Page)

Thank you for completing the survey!

If you are interested in entering the draw to win one of four, $50 electronic gift cards to your choice of Amazon Canada, Shoppers Drug Mart, or Indigo, please agree to leave your contact information.

You will be redirected to another webpage if you would like to participate in this draw, otherwise, you may close the survey window to not participate in the draw.

The draws will occur in late 2021 and winners will be contacted by email.

<< ☐ Yes, I agree to participate in the draw.>> CONTINUE TO NEXT PAGE

OR

<< ☐ No, I do not want to participate in the draw.>> Thank you for taking the time to participate in our survey!

(Next Page)

To enter in the draw, please leave your name and email address. You will be notified by email if you win.

By entering your name and email address for the draw, you confirm that you will only submit ONE survey and will not submit more than ONE entry to this survey.

Name: _____

Email Address: _____

As part of the evaluation, WIHV is also conducting interviews on this topic.
If you are interested in further sharing your experiences using iCBT, please select YES to be contacted—you will be redirected to another webpage to enter your name and email.

Responding to this statement will not affect your chances in any way of winning the draw nor will it be linked to your survey responses.

<< ☐ Yes, I agree to participate in an interview.>>
CONTINUE TO SEPARATE PAGE

OR

<< ☐ No, I do not want to participate in an interview.>>

Thank you for taking the time to participate in our survey!

(Next Page)

To participate in an interview, please leave your name and email address. You will be contacted by email by a member of the research team.

Your decision to participate in this interview will not affect your chances in any way of winning the draw nor will it be linked to your survey responses.

Name: _____

Email Address: _____

Thank you for taking the time to participate in our survey and for considering in taking part in an interview! (End)

8.4 Appendix D: Interview Consent Form and Questions

INFORMED CONSENT TO PARTICIPATE IN AN EVALUATION STUDY

Full Study Title: Evaluating an Internet-Based Cognitive Behavioural Therapy (iCBT) Program

Principal Investigator:
Dr. Onil Bhattacharyya, Institute for Health Systems Solutions and Virtual Care (WIHV), Women's College Hospital, Toronto, ON, 416-323-6400 ext. 5217,
onil.bhattacharyya@wchospital.ca
Funder: Ministry of Health, Ontario – Digital Health Division

---

INFORMED CONSENT

You are being invited to consider participating in an evaluation study. This form explains the purpose of this evaluation study, provides information about the study procedures, possible risks and benefits, and the rights of participants.

Please read this form carefully and ask any questions you may have. You may have this form and all information concerning the study explained to you. Please ask the study staff or one of the investigators to clarify anything you do not understand or would like to know more about. Please make sure all your questions are answered to your satisfaction before deciding whether to participate in this evaluation study.

Participating in this study is your choice. You have the right to choose not to participate, or to stop participating in this study at any time, and your decision will have no influence on the care you receive from your health care team or your status in a hostel/shelter/group home or on your status at your hospital/institution/employer.

INTRODUCTION

In May 2020, the Ontario government committed $12 million to expand virtual mental health services to support the rise in the number of Ontarians experiencing anxiety and depression during the COVID-19 pandemic. One of these virtual mental health service offerings included Internet-based Cognitive Behavioural Therapy (iCBT), provided by MindBeacon and Morneau Shepell (hereafter known as LifeWorks). The iCBT service is a publicly available assisted therapy for the treatment of mild to moderate depression and/or anxiety-related disorders. iCBT as a general psychosocial intervention, can be an effective treatment for mental health conditions including depression, social anxiety, panic disorders, phobias, addiction and substance use disorders, bipolar disorder, and obsessive-compulsive disorder, to name a few, and has shown to be a cost-effective intervention both for clients (e.g., cost for travel, cost for traditional 1:1 therapy) and for the health system.

As Ontario's iCBT program continues during the pandemic, an assessment of the program's impact at the population level on anxiety and depression is needed to consider its long-term effectiveness in improving health outcomes. A better understanding of the program's delivery process, patient population, and experience of clients and health care providers can enable us to identify elements of the program that can be improved to provide value to Ontarians beyond the pandemic.

PURPOSE

You are being invited to consider participating in this study. **You are eligible to consider participating if:**

- **you are a client who is 18 years or older and has/had mild to moderate depression and anxiety-related symptoms at the time of registration with the iCBT Program and have accessed the program;**

OR

- **you are a health care provider who has delivered MindBeacon and/or LifeWorks' iCBT Program during the COVID-19 pandemic.**

The purpose of this study is to understand the impact of the COVID-19 iCBT self-referral program on the mental health and wellness of Ontarians and the objectives are to describe the nature of the services delivered and the patient demographics of those who accessed the service, evaluate the effectiveness of the iCBT program in improving health outcomes, and gain insight into client and health care provider experiences of accessing/delivering the program.

DESCRIPTION OF DATA COLLECTION AND EVALUATION

You are being invited to consider participating in an interview. The interview will be held at a mutually convenient time over the telephone and will last approximately 30 to 45 minutes. Participants for this study will consist of clients who have accessed the iCBT service and health care providers who have delivered the iCBT program during the COVID-19 pandemic. During the interview, you will be asked questions about your user experience in terms of acceptance and satisfaction, the fit of the program for addressing mild to moderate depression/anxiety-related disorders, and enablers/barriers of using/delivering the program. The interview will be audio recorded and later transcribed word for word so that we can conduct an accurate and in-depth review and analysis of interview data at a later stage of the research process.

Prior to the commencement of the interview, you will be asked questions about demographics, like age, gender, ethnicity, education, employment situation, etc. This should take approximately 3-5 minutes of your time (within the 30 to 45-minute interview time).

POTENTIAL HARMS

There are no known harms associated with participation in this study.
There is a risk that you may feel uncomfortable with items of discussion, or with being audio recorded. However, you may skip questions, take a break, or withdraw from the study at any time without needing to provide an explanation.
You may disclose information that may identify people or organizations. To minimize such risk, the person interviewing you will remind you not to use specific names. All names and identifiers will be deleted during the transcription process.

POTENTIAL BENEFITS

You will not benefit directly from this study. The findings of the study may contribute to a greater understanding of how internet-based cognitive behavioural therapy services could be improved to better meet the needs of people using the service during and post-pandemic.

CONFIDENTIALITY AND PRIVACY

Confidentiality will be respected and no information that discloses your identity will be released or published without consent unless required by law. All identifying information will be destroyed. This means that no information will be released or printed that would disclose personal identity. No subject identifiers of participants will be included in the conduct, data storage, analysis and presentation of findings (data will be presented in aggregate form only). Even though the likelihood that someone may identify you from the study data is very small, it can never be completely eliminated.

Study data (e.g., interview transcripts) will be password protected and stored on the Women's College Hospital Institute for Health System Solutions and Virtual Care electronic shared drive for a period of 5 years. Any hard copies of data will be stored in a locked cabinet accessible only by the Investigative Team at Women's College Hospital and will be shredded 5 years after study completion.

Consent forms of study participants will be stored separately from the data files (e.g., transcripts and analytical worksheets). Unless otherwise required by law, only the Investigative Team will have access to the consent forms, which will be kept in an electronic, password protected format on the Women's College Hospital Institute for Health System Solutions and Virtual Care electronic shared drive for a period of 5 years. The interview audio recordings will be destroyed following completion of the study (est. March 2022). Only the Investigative Team under the supervision of the Principal Investigator will have access to the data before destruction.

The Investigative Team will protect your records and keep confidential all the information in your study file, including your name, email address and telephone number. The chance that this information will accidentally be given to someone else is small.

Unless otherwise required by law, the interview audio recordings and transcripts will only be seen by the study team and the Research Ethics Board at Women's College Hospital for the purpose of study monitoring.

PUBLICATION OF FINDINGS

We may share the findings of this study at professional conferences, educational rounds at Women's College Hospital, in reports, or in articles in professional journals.

Participants may be directly quoted in publications and presentations that the evaluation team produces. No identifying information will be included in any of the publications or presentations associated with this study. The findings from this evaluation will be made available to you upon completion of the evaluation study. If you are interested in receiving a copy of the findings, please ask the Investigative Team through the contact information provided at the beginning and end of this letter.

REIMBURSEMENT

As an honorarium for your time and participation, you will be offered a gift card in the amount of $ 25.00 from one of the following retailers (your choice): Amazon Canada, Shoppers Drug Mart, or Indigo, which you may choose to accept or decline. This honorarium is not taxable.

PARTICIPATION AND WITHDRAWAL

Participation in the evaluation study is voluntary and your decision whether or not to participate will not affect your employment status at your hospital/institution/employer or your status at your hostel/shelter/group home or the care you receive from your health care team. If you choose to participate in this study, you can withdraw from the study at any time with no impact on current or future employment at your current hospital/facility or on the care you receive from your health care team. You may also skip any questions you do not wish to answer or take a break. If you choose to withdraw your consent to participate in this study, any data collected up until your withdrawal will be used unless you also wish to withdraw your data from this study.

CONTACT PERSONS

If you would like to discuss any aspects of the study, please feel free to contact Rebecca Liu at email: rebecca.liu@wchospital.ca

If you have any questions regarding your rights as a participant, please contact the Women's College Hospital Research Ethics Board Coordinator, Ms. Melissa Sidhu by email: ethics@wchospital.ca or by phone (416) 351-3732 ext. 2723.

DOCUMENTATION OF INFORMED CONSENT

If verbal consent was obtained, a copy of this informed consent form will be signed and dated on your behalf by study staff.

Full Study Title: Evaluating an Internet-Based Cognitive Behavioural Therapy Program

Name of Participant: _____

Indicate here if verbal consent obtained: □ Consent obtained at _____
Date & Time

Participant (see associated Verbal Consent Questionnaire)

By verbally consenting to the terms of this form, I confirm that:

- This evaluation study has been fully explained to me and all of my questions answered to my satisfaction.
- I understand the requirements of participating in this evaluation study.
- I meet the eligibility criteria to participate in this evaluation study.
- I have been informed of the risks and benefits, if any, of participating in this evaluation study.
- I have been informed of any alternatives to participating in this evaluation study.
- I have been informed of the rights of participants.
- I have read each page of this form.
- I authorize access to my personal information, and evaluation study data as explained in this form.
- I have agreed, or agree to allow the person I am responsible for, to participate in this evaluation study.

_____	_____	_____
Name of participant/ Substitute decision maker (print)	Signature	Date & Time

Person obtaining consent:
By signing this form, I confirm that:

- This evaluation study and its purpose has been explained to the participant named above
- All questions asked by the participant have been answered
- I will give a copy of this document to the participant

_____ _____ _____

Name of person obtaining consent (print) | Signature | Date & Time

The purpose of the following questions is to ensure that you are fully informed about the study before you consent to participating and to provide further opportunity to have any of your questions clarified. These questions are not to test your knowledge of the study.

Verbal Consent Questionnaire

Name of Participant: Name of SDM:		**Clear**		**Re-explained**
		Yes	No	Yes
Voluntary				
1.	Do you have to take part in this evaluation study?			
2.	Once you have signed the consent form, do you have to stay in the study till the end?			
3.	If you decide not to enter the study, will the way your health care providers treat you change in any way?			
About the Evaluation Study				
4.	What is the purpose of the study?			
5.	What is expected of you in this study?			
6.	Is it a requirement that you answer all questions that are asked?			
Risk and Benefits				
7.	What are the benefits of being in the study?			
8.	What are the risks of being in the study?			
Confidentiality				
9.	Will your study files be kept absolutely confidential?			
10.	Who will be allowed to look at your interview transcripts and descriptive questionnaire and who will be told about them?			
Time Required				
11.	How long will you be asked to participate in this study?			
Reimbursement				
12.	Will you be offered an honorarium for taking part in this study?			
Questions				
13.	If you have specific questions about this study, who should you ask?			

14.	If you have questions about being involved in a study in general, who should you ask?			

User Interview Guide

Demographic Questions:

1. What year were you born**?**

<drop down>

☐ 2003…-> 1920

☐ Prefer not to answer

2. **Overall, how would you describe your level of comfort with using computers or technology?**

☐ None

☐ Basic (e.g., I can log into email, require some assistance to)

☐ Average (e.g., I can answer emails and browse the internet, require little to no assistance)

☐ Advanced (e.g., I can independently solve a problem by navigating some webpages and applications)

☐ Expert (e.g., I can independently solve a problem with multiple steps across webpages and applications)

3. **What is your gender identity?**

Gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people. (Source: CIHR, 2020)

☐ Woman

☐ Man

☐ Trans woman

☐ Trans man

☐ Two-Spirit

☐ Gender nonconforming/Genderqueer

☐ Gender fluid

☐ Gender neutral

☐ Androgynous

☐ Non-binary

☐ Do not know

☐ Prefer to self-describe: _____

☐ Prefer not to answer

4. **What language(s) would you feel most comfortable communicating in with your healthcare provider? (Choose all that apply)**

☐ Amharic

☐ Arabic

☐ ASL

☐ Bengali

☐ Cantonese

☐ Cree

☐ Czech

☐ English

☐ French

☐ Greek

☐ Gujarati

☐ Hindi
☐ Hungarian
☐ Inuktitut
☐ Italian
☐ Karen
☐ Korean
☐ Mandarin
☐ Nepali
☐ Ojibwe
☐ Oji-Cree
☐ Persian (Farsi, Dari, Tajik)
☐ Polish
☐ Portuguese
☐ Punjabi
☐ Russian
☐ Serbian
☐ Slovak
☐ Somali
☐ Spanish
☐ Tagalog
☐ Tamil
☐ Tigrinya
☐ Turkish
☐ Twi
☐ Ukrainian
☐ Urdu
☐ Vietnamese
☐ Prefer to self-describe: _____
☐ Prefer not to answer

5. **Which of the following best describes your racial or ethnic background?**

Race is a social construct. This means that society forms ideas of race based on geographic, historical, political, economic, social, and cultural factors, as well as physical traits, even though none of these can legitimately be used to classify groups of people. (Source: CIHR, 2019)

Ethnicity denotes groups that share a common identity-based ancestry, language, or culture. It is often based on religion, beliefs, and customs as well as memories of migration or colonization. (Source: Cornell & Hartmann, 2007)

☐ Black (African, Afro-Caribbean, African-Canadian descent)
☐ East Asian (Chinese, Korean, Japanese, Taiwanese descent)
☐ Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent)
☐ Indigenous (First Nations, Métis, Inuit descent)
☐ Latino (Latin American, Hispanic descent)
☐ Middle Eastern (Arab, Persian, e.g., Afghan, Iranian, Lebanese,

Turkish, Kurdish, etc.)
☐ South Asian (South Asian descent, e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean, etc.)
☐ White (European descent)
☐ Prefer to self-describe _____
☐ Prefer not to answer

6. **What is the highest level of education you have completed?**

☐ Primary or middle school
☐ High school
☐ Trade or vocational diploma/certificate
☐ College degree/diploma/certificate
☐ Undergraduate degree
☐ Master's degree
☐ Professional degree (e.g., PhD, MD, JD, DDS, etc.)
☐ None of the above
☐ Other, please specify: _____
☐ Prefer not to answer

7. **Which best describes your employment situation?**

☐ Full Time (30+ hours per week)
☐ Part Time (less than 30 hours per week)
☐ Casual, on-call or short-term contract
☐ Seasonal
☐ Working for others
☐ Self-employed
☐ Other (please specify) _____
☐ Not currently working in the labour force
☐ Prefer not to answer

If not currently working in labour force, please answer questions 8-10. If currently working, skip to question 11.

8. **Since when have you not been working in the labour force?**

☐ Before March 14, 2020 (before COVID-19 pandemic)
☐ After March 14, 2020 (due to COVID-19 pandemic)
☐ After March 14, 2020 (**NOT** due to COVID-19 pandemic)
☐ Prefer not to answer

9. **Are you seeking employment?**

☐ Yes
☐ No
☐ Prefer not to answer

10. **Do you identify with any of the following groups? (Choose all that apply)**

☐ Homemaker
☐ Caregiver
☐ Student

☐ Retired
☐ On disability support
☐ Prefer not to answer

11. **What type of housing do you live in?**

☐ Apartment/house (Home-owner)
☐ Apartment/house (Tenant)
☐ Boarding home
☐ Correctional facility
☐ Group home
☐ Homeless/street-based
☐ Shelter/hostel
☐ Supportive housing
☐ Transitional housing
☐ Long term care home/assisted living facility
☐ Do not know
☐ Other, please specify: _____
☐ Prefer not to answer

12. **How would you describe where you live?**

☐Rural (less 1,000 people)
☐Small population centres (1,000 to 29,999 people)
☐Medium population centres (30,000 to 99,999 people)
☐Large population centres (100,000 to 999,999 people)
☐Urban centres (1 million people and over)
☐Do not know
☐Prefer not to answer

13. **In general, how would you rate your overall health?**

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. (Source: WHO, 1947)

☐ Poor
☐ Fair
☐ Good
☐ Very good
☐ Excellent
☐ Do not know
☐ Prefer not to answer

14. **In addition to mild to moderate anxiety and/or depression related symptoms, do you have any of the following? (Choose all that apply)**

☐ Chronic illness
☐ Acute illness
☐ Sensory disability (e.g., hearing or vision loss)
☐ Developmental disability
☐ Learning disability
☐ Physical disability
☐ Other mental illness disorders/conditions

☐ None
☐ Do not know
☐ Other (please specify): _____
☐ Prefer not to answer

15. **Do you need a caregiver (a family member helping with your care or a paid caregiver such as a nurse or a personal support worker)?**

☐ Yes
☐ No
☐ Other (please specify): _____
☐ Prefer not to answer

16. **What is your annual household income (before taxes)?**

☐$0 - $29,999
☐$30,000 - $59,999
☐$60,000 - $89,999
☐$90,000 - $119,999
☐$120,000 - $149,999
☐$150,000 +
☐ Prefer not to Answer
☐ Do not know

17. **How many people does this income support, including yourself? _____ person(s)**

☐ Prefer not to answer
☐ Do not know

18. **Do you face occasional challenges in meeting financial needs at the end of the month?**

☐ Yes
☐ No
☐ Do not know
☐ Other (please specify): _____
☐ Prefer not to answer

19. **How many people live with you, including yourself? _____person(s)**

☐ Prefer not to answer

20. **From which service provider do you currently use the iCBT program? (Choose all that apply).**

☐ MindBeacon
☐ Morneau Shepell's (recently changed to LifeWorks) AbilitiCBT

☐ Prefer not to answer

21. **If you previously accessed or are currently accessing iCBT through MindBeacon and/or LifeWorks, what module or playlist have you completed up till?**

Note: We recognize that some users will have accessed iCBT through MindBeacon and others through LifeWorks or through both. Thus, we are using the terms "Module" and "Playlist" interchangeably.

dropdown menu

☐ Module 1/Playlist 1
☐ Module 2/Playlist 2
☐ Module 3/Playlist 3
☐ Module 4/Playlist 4
☐ Module 5/Playlist 5
☐ Module 6/Playlist 6
☐ Module 7/Playlist 7
☐ Module 8/Playlist 8
☐ Module 9/Playlist 9
☐ Module 10/Playlist 10
☐ Module 11/Playlist 11
☐ Module 12/Playlist 12
☐ Don't know
☐ Prefer not to answer

22. **I access the iCBT program using a:**

☐ Shared device
☐ Private device

23. **On average, do you have reliable access to a device to use the iCBT program?**

☐ Yes
☐ No
☐ Sometimes
☐ Do not know

24. **Please rate your level of comfort with written communication.**

☐ Very comfortable
☐ Comfortable
☐ Neither comfortable nor uncomfortable
☐ Uncomfortable
☐ Very uncomfortable

25. **How were you referred to the iCBT program?**

☐ Self-referral (i.e., I went on the internet and completed the intake assessment)
☐ Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)
☐Other (please specify):_____

If self-referral, please proceed to question 27

26. **Who recommended the iCBT program to you?**

☐ Nobody
☐ Health care provider
☐ Family member
☐ Friend
☐ Colleague/Co-worker
☐ Employer
☐ Other (please specify): _____
☐ Referral from a care provider (e.g., family doctor, therapist, counsellor, etc.)

27. **How did you hear/learn about the program? (e.g., Twitter, Facebook, government website, etc.): _____**

Acceptability (acceptance and satisfaction)

1. Please tell me about your experience using the iCBT program. (e.g., when did you begin the program, how many modules/playlists did you complete, what did you like most about the program)
2. What made you interested in accessing the iCBT program?
3. How long have you been using the iCBT program?
4. What do you like or dislike about the iCBT program?
5. If you had the option to continue using the iCBT program, would you continue using it? (Tell me more...)

Appropriateness (perceived fit of the program for addressing depression/anxiety-related disorders)

6. For what reasons did the iCBT program initially seem like a good or appropriate fit for you?
7. After experiencing iCBT, do you feel it was a good match for you in terms of your mental health needs and life situation? (Tell me more about …).
8. How could the iCBT program be improved to better meet your mental health needs? (Tell me more about …).

Feasibility (enablers and barriers)

9. Was the iCBT service easy to access? Was it engaging?
10. Was the iCBT program a practical fit in your day-to-day life/workflow? (Tell me more about …).
11. Do you feel realistically able to continue accessing the iCBT program if you wanted to? (Tell me more about …).

Conclusion

12. What would need to happen to make the iCBT program meet your mental health needs and particular life situation (e.g., as a working, single parent, as a student, etc.)
13. What other complementary or similar services did you access (if any) alongside iCBT or would like to have accessed, in combination with iCBT (e.g., PCP, counsellor, etc.)?
14. Is there anything else you feel is important to tell us about your experience using the iCBT program?

Provider Interview Guide

Demographic Questions:

1. **What is your professional designation? (Choose all that apply)**

☐ Psychologist
☐ Psychological Associate
☐ Psychologist (supervised practice)
☐ Resident or Intern in Clinical Psychology
☐ Social Worker
☐ Registered Psychotherapist
☐ Counselor
☐ Other, please specify: _____

2. **How many years have you been working in your current profession?**

(Please round up the number of years you worked e.g., If you worked 5.5 years, please round to 6 years)

☐1 year or less
☐ 2-5 years
☐ 6-10 years
☐ 11-15 years
☐ 16+ years

3. **Please specify the population(s) with which you are licensed to work (if applicable). (Choose all that apply)**

☐ Child

☐ Adolescent
☐ Adult
☐ Couples
☐ Families
☐ Geriatric
☐ Other, please specify: _____

4. **Please specify what mental health issues you are able to support clients with. (Choose all that apply)**

☐ Social anxiety
☐ Panic
☐ Stress management
☐ Generalized or Health anxiety
☐ Adjustment problems
☐ Depression
☐ Insomnia
☐ Chronic Pain
☐ Post-traumatic stress disorder
☐ Other, please specify: _____

5. **How long have you been delivering assisted therapy through the iCBT program since May 2020?**

(Please round up the number of months you have delivered iCBT e.g., If you delivered iCBT for 6.5 months, please round to 7 months)

☐ Less than a month
☐ 1-3 months
☐ 4-6 months
☐ 7-11 months
☐ 12+ months

6. **Overall, how would you describe your level of comfort with using technology?**

☐ None

☐ Basic (e.g., I can log into email, require some assistance to)
☐ Average (e.g., I can answer emails and browse the internet, require little to no assistance)
☐ Advanced (e.g., I can independently solve a problem by navigating some webpages and applications)
☐ Expert (e.g., I can independently solve a problem with multiple steps across webpages and applications)

7. What year were you born**?**

<drop down>
☐ 2003 ->… 1920
☐ Prefer not to answer

8. **What is your gender identity?**

Gender refers to the socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people. (Source: CIHR, 2020)

☐ Woman
☐ Man
☐ Trans woman
☐ Trans man
☐ Two-Spirit
☐ Gender nonconforming/Genderqueer
☐ Gender fluid
☐ Gender neutral
☐ Androgynous
☐ Non-binary
☐ Do not know
☐ Prefer not to answer
☐ Prefer to self-describe: _____

9. **What best describes the community size where you primarily provide care? (Choose all that apply)**

☐Rural (less 1,000 people)
☐Small population centres (1,000 to 29,999 people)
☐Medium population centres (30,000 to 99,999 people)
☐ Large population centres (100,000 to 999,999 people)
☐ Urban centres (1 million people and over)
☐ Do not know
☐ Prefer not to answer

10. **What languages do you feel most comfortable communicating in with your patients? (Choose all that apply)**

☐ Amharic
☐ Arabic
☐ ASL
☐ Bengali

☐ Cantonese
☐ Cree
☐ Czech
☐ English
☐ French
☐ Greek
☐ Gujarati
☐ Hindi
☐ Hungarian
☐ Inuktitut
☐ Italian
☐ Karen
☐ Korean
☐ Mandarin
☐ Nepali
☐ Ojibwe
☐ Oji-Cree
☐ Persian (Farsi, Dari, Tajik)
☐ Polish
☐ Portuguese
☐ Punjabi
☐ Russian
☐ Serbian
☐ Slovak
☐ Somali
☐ Spanish
☐ Tagalog
☐ Tamil
☐ Tigrinya

☐ Turkish
☐ Twi
☐ Ukrainian
☐ Urdu
☐ Vietnamese
☐ Other, please specify: _____
☐ Prefer not to answer

11. **Which of the following best describes your racial or ethnic background?**

Race is a social construct. This means that society forms ideas of race based on geographic, historical, political, economic, social and cultural factors, as well as physical traits, even though none of these can legitimately be used to classify groups of people. (Source: CIHR, 2019)

Ethnicity denotes groups that share a common identity-based ancestry, language, or culture. It is often based on religion, beliefs, and customs as well as memories of migration or colonization. (Source: Cornell & Hartmann, 2007)

☐ Black (African, Afro-Caribbean, African-Canadian descent)
☐ East Asian (Chinese, Korean, Japanese, Taiwanese descent)
☐ Southeast Asian (Filipino, Vietnamese, Cambodian, Thai, Indonesian, other Southeast Asian descent)
☐ Indigenous (First Nations, Métis, Inuit descent)
☐ Latino (Latin American, Hispanic descent)
☐ Middle Eastern (Arab, Persian, e.g., Afghan, Iranian, Lebanese, Turkish, Kurdish, etc.)
☐ South Asian (South Asian descent, e.g., East Indian, Pakistani, Bangladeshi, Sri Lankan, Indo-Caribbean, etc.)
☐ White (European descent)
☐ Prefer to self-describe: _____
☐ Prefer not to answer

12. **From which service provider do you currently deliver the iCBT program? (Choose all that apply)**

☐ MindBeacon
☐ Morneau Shepell's (hereafter known as LifeWorks) AbilitiCBT
☐ Prefer not to answer

13. **What describes the basis at which you are providing iCBT through MindBeacon or LifeWorks?**

☐ Full-time
☐ Part-time
☐ Other, please specify: _____

Acceptability (acceptance and satisfaction)

1. Please tell me about your experience delivering the iCBT program.
2. What made you interested in delivering the iCBT program?
3. How long have you been providing care through the iCBT program?
4. What do you like or dislike about the iCBT program?

5. Have there been any concerns about managing or have had problems managing situations of risk (i.e. self-harm) in the iCBT program? Do you plan on continuing to use the program and offering it to patients?
6. How did the iCBT program compare with other forms of therapy you deliver?

Appropriateness (perceived fit of the program for addressing depression/anxiety-related disorders)

7. What made iCBT a suitable fit / good match for you as a therapist?
8. Are there particular types of clients that benefit the most (or the least) from the program? (Tell me more…) Are there any clients in particular that are better served or not served by iCBT
9. What made iCBT a suitable fit / good match for clients?
10. After delivering assisted therapy through the iCBT program, do you feel it was a good match for you in terms of your clients and practice needs as a health care provider (Tell me more about …).
11. How could the iCBT program be improved to better meet your user and practice needs? (Tell me more about …).

Feasibility (enablers and barriers)

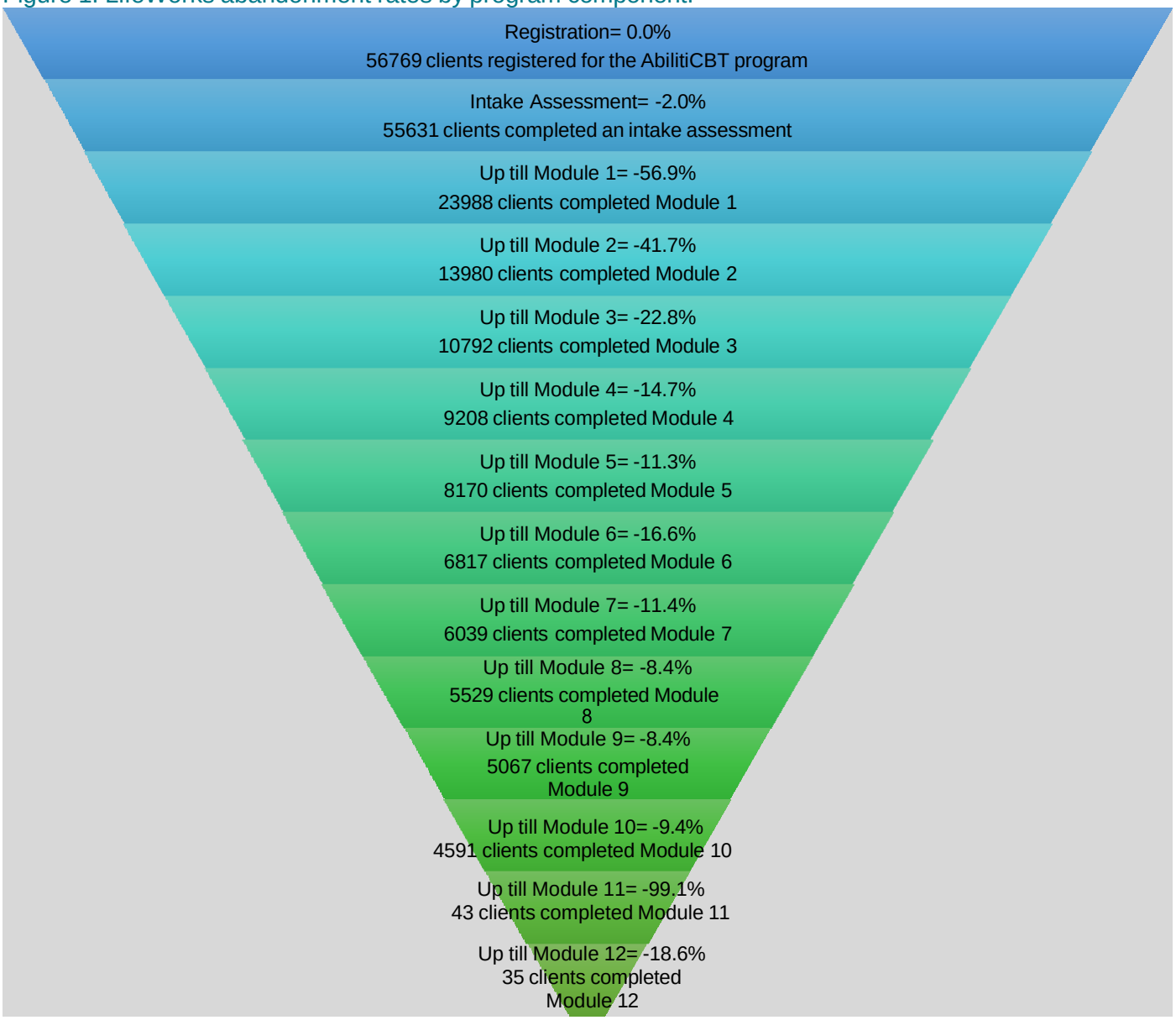
12. Was it easy to use the iCBT program and deliver assisted therapy through it to patients?
13. What kind of administrative/technological support did you have available to you, if any, in delivering assisted therapy through the iCBT program?
14. Did you receive any feedback from patients in terms of their perceptions about how easy or difficult the iCBT program was to use/access?
15. What kinds of challenges did patients face?
16. What is your clinical perspective on the self-referral assessment and process of the program?
17. What kind of professional development opportunities or collegial support did you have available to you, if any, in delivering assisted therapy through the iCBT program?
18. Was the iCBT program a practical fit in your day-to-day practice workflow? (Tell me more about …).

Conclusion

19. What would need to happen to make the iCBT program more tailored to your clients' needs?
20. What would need to happen to make the iCBT program more tailored for your needs as a health care provider in your practice setting?
21. Are there any services that you think would need to be added or be complementary to include with the iCBT program?
22. Is there anything else you feel is important to tell us about your experience using the iCBT program?

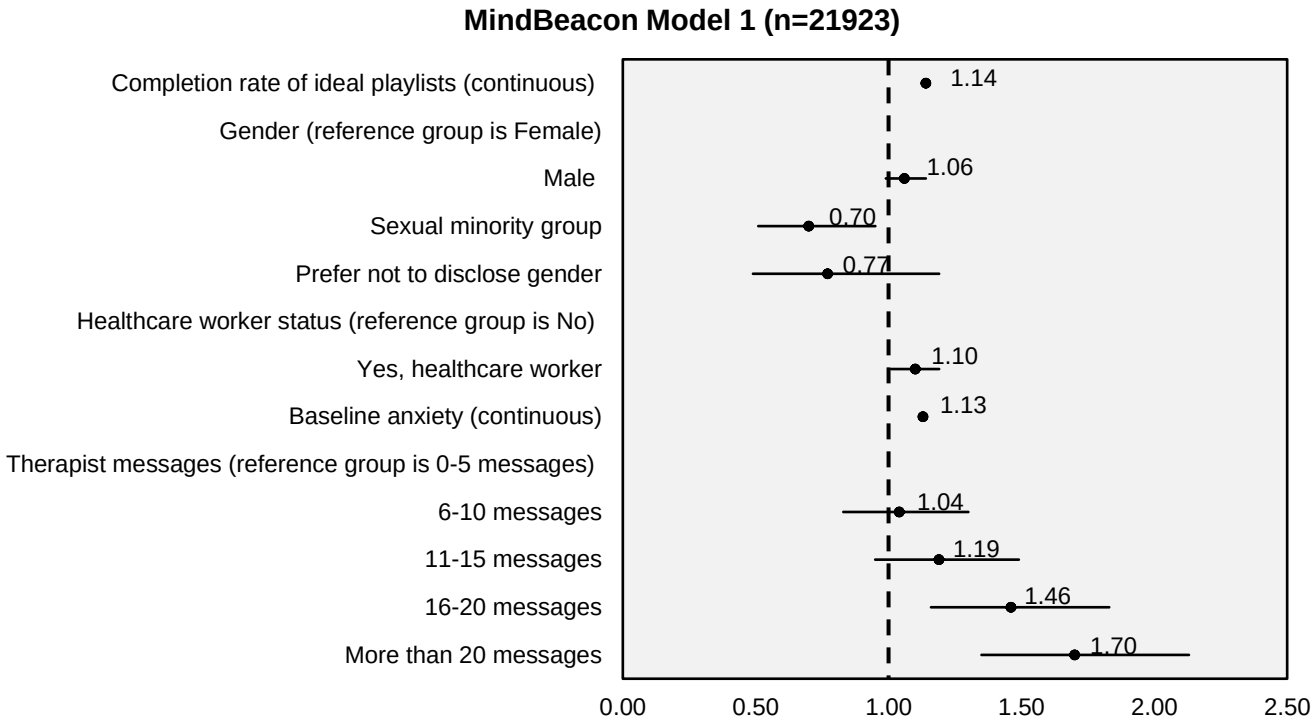
8.5 Appendix E: LifeWorks Abandonment Data

Figure 1. LifeWorks abandonment rates by program component.



8.6 Appendix F: Association between Playlist Completion and Change in Outcome Measures

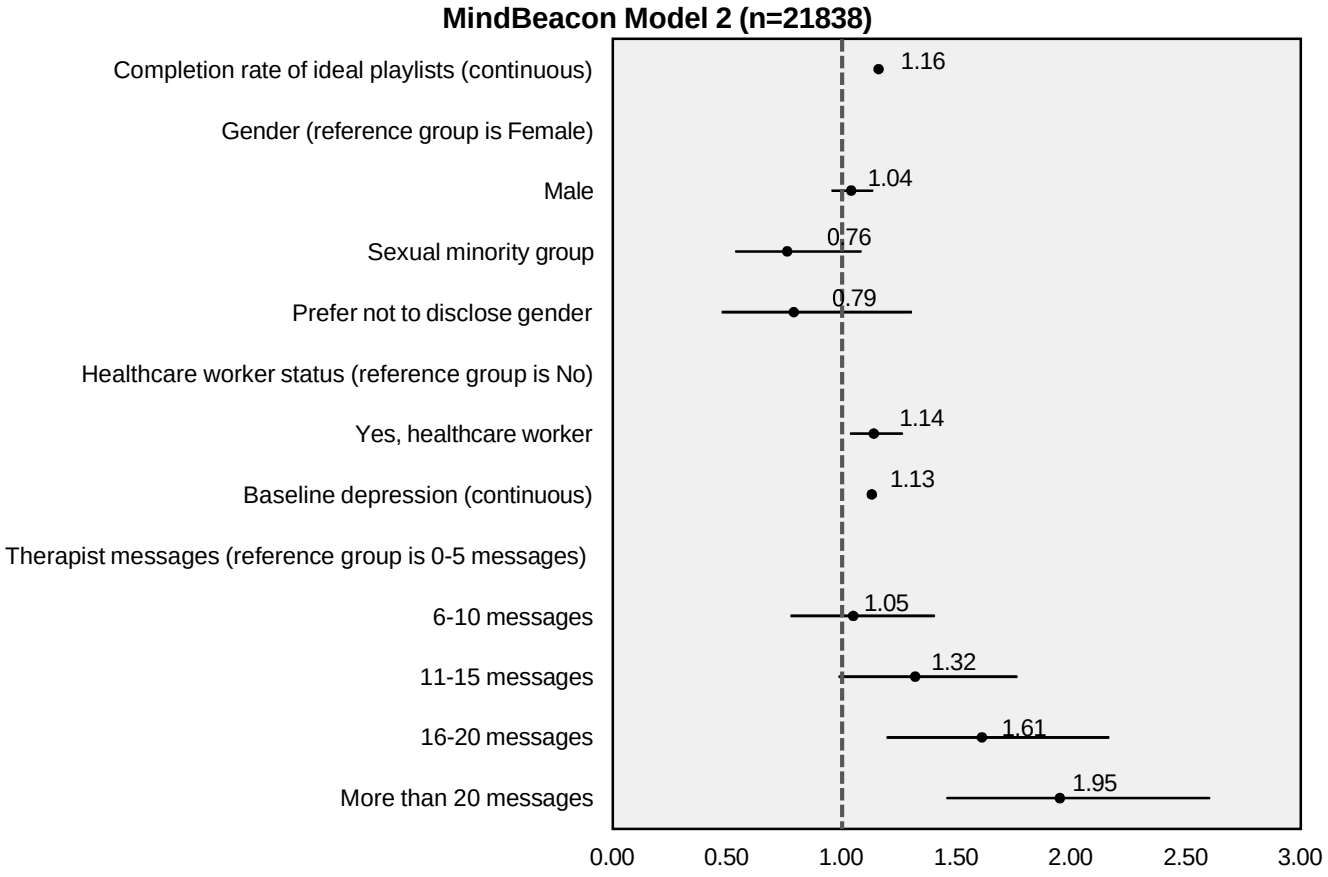
Figure 16. MindBeacon Model 1: Association between playlist completion and change in GAD-7 scores.



- Key insight from this graph: For MindBeacon, each unit increase of playlist completion rate was generally associated with significant clinical improvement in GAD-7 scores when controlling for other factors (gender, healthcare worker status, baseline GAD-7 scores, and therapist messages). Healthcare worker status, higher baseline GAD-7 scores, greater number of therapist messages were associated with change in GAD-7 scores (improvement in outcome).

Note: Clinical improvement was determined based on IAPT reliable change index which accounts for measurement error in the GAD-7 scale. A 4-point change between first and last GAD-7 scores was a reliable change (2). These models provide general estimates on the association between program completion and improvement in outcomes derived from administrative data. It can be conclusively stated that more playlists completed increased the chances of improvement in outcomes. Due to the differences between MindBeacon and LifeWorks' iCBT programs however, we cannot make direct comparisons between service providers using these estimates.

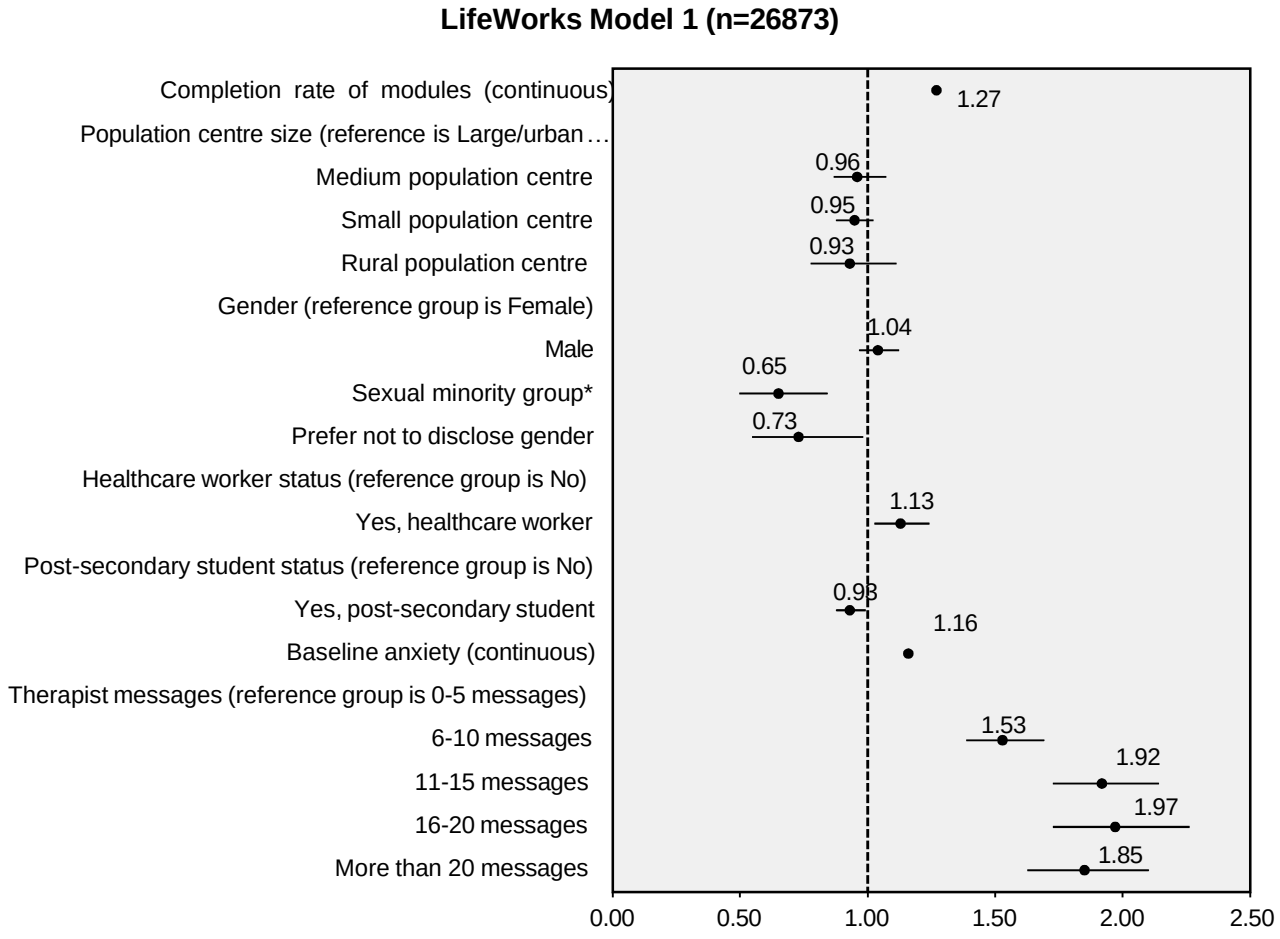
Figure 17. MindBeacon Model 2: Association between playlist completion and change in PHQ-9 scores.



- Key insight from this graph: For MindBeacon, each unit increase of playlist completion rate was generally associated with significant clinical improvement in PHQ-9 scores when controlling for other factors (gender, healthcare worker status, baseline PHQ-9 scores, and therapist messages). Healthcare worker status, higher baseline PHQ-9 scores, and greater number of therapist messages were all significantly associated with change in PHQ-9 scores (improvement in outcome).

Note: Clinical improvement was determined based on IAPT reliable change index which accounts for measurement error in the PHQ-9 scale. A 6-point change between first and last PHQ-9 score was a reliable change (2). These models provide general estimates on the association between program completion and improvement in outcomes derived from administrative data. It can be conclusively stated that more playlists completed increased the chances of improvement in outcomes. Due to the differences between MindBeacon and LifeWorks' iCBT programs however, we cannot make direct comparisons between service providers using these estimates.

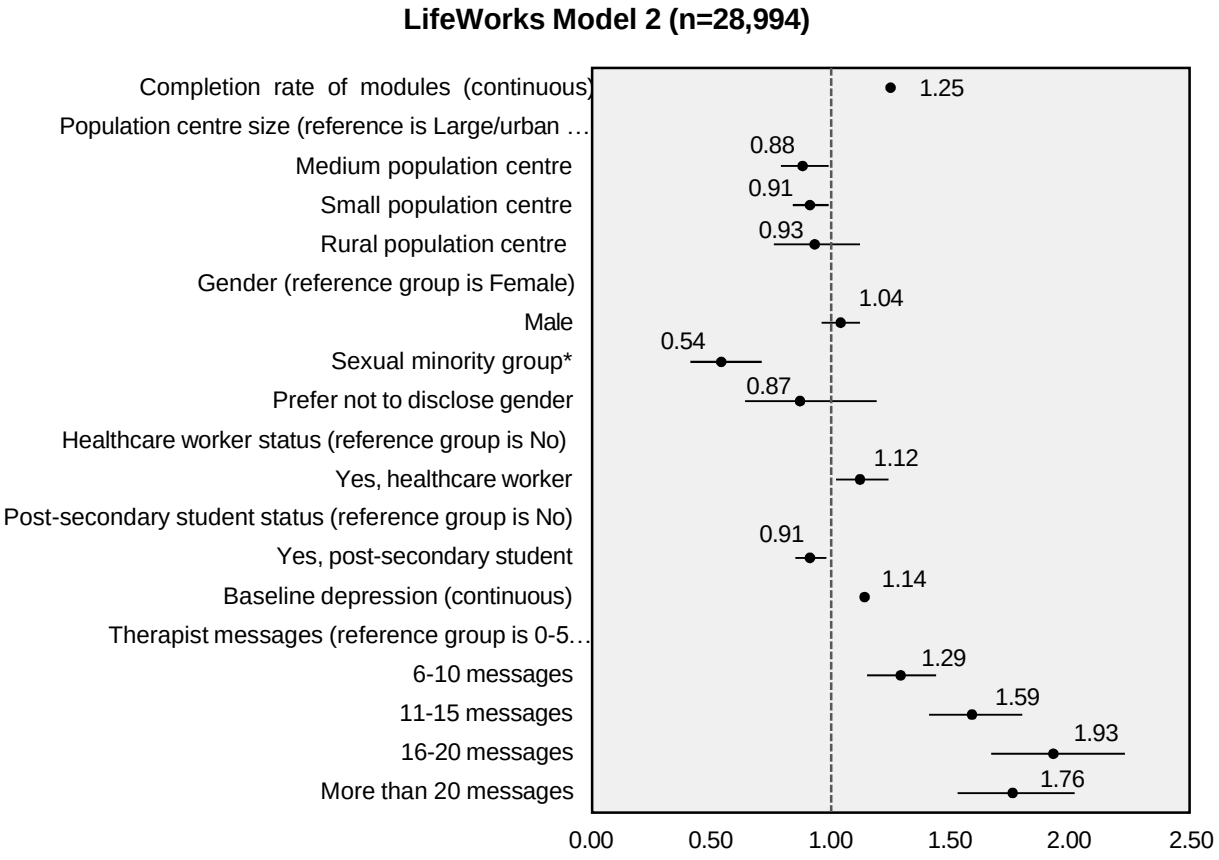
Figure 18. LifeWorks Model 1: Association between module completion and change in GAD-7 scores.



- Key insight from this graph: For LifeWorks, each unit increase of module completion rate was associated with significant clinical improvement in GAD-7 scores when controlling for other factors (population centre size, gender, healthcare worker status, post-secondary student status, baseline GAD-7 scores, and therapist messages). Healthcare worker status, higher baseline GAD-7 scores, greater number of therapist messages were associated with change in GAD-7 scores (improvement in outcome).

Note: Clinical improvement was determined based on IAPT reliable change index which accounts for measurement error in the GAD-7 scale. A 4-point change between first and last GAD-7 scores was a reliable change (2). These models provide general estimates on the association between program completion and improvement in outcomes derived from administrative data. It can be conclusively stated that more modules completed increased the chances of improvement in outcomes. Due to the differences between MindBeacon and LifeWorks' iCBT programs however, we cannot make direct comparisons between service providers using these estimates.

Figure 19. LifeWorks Model 2: Association between module completion and change in PHQ-9 scores.

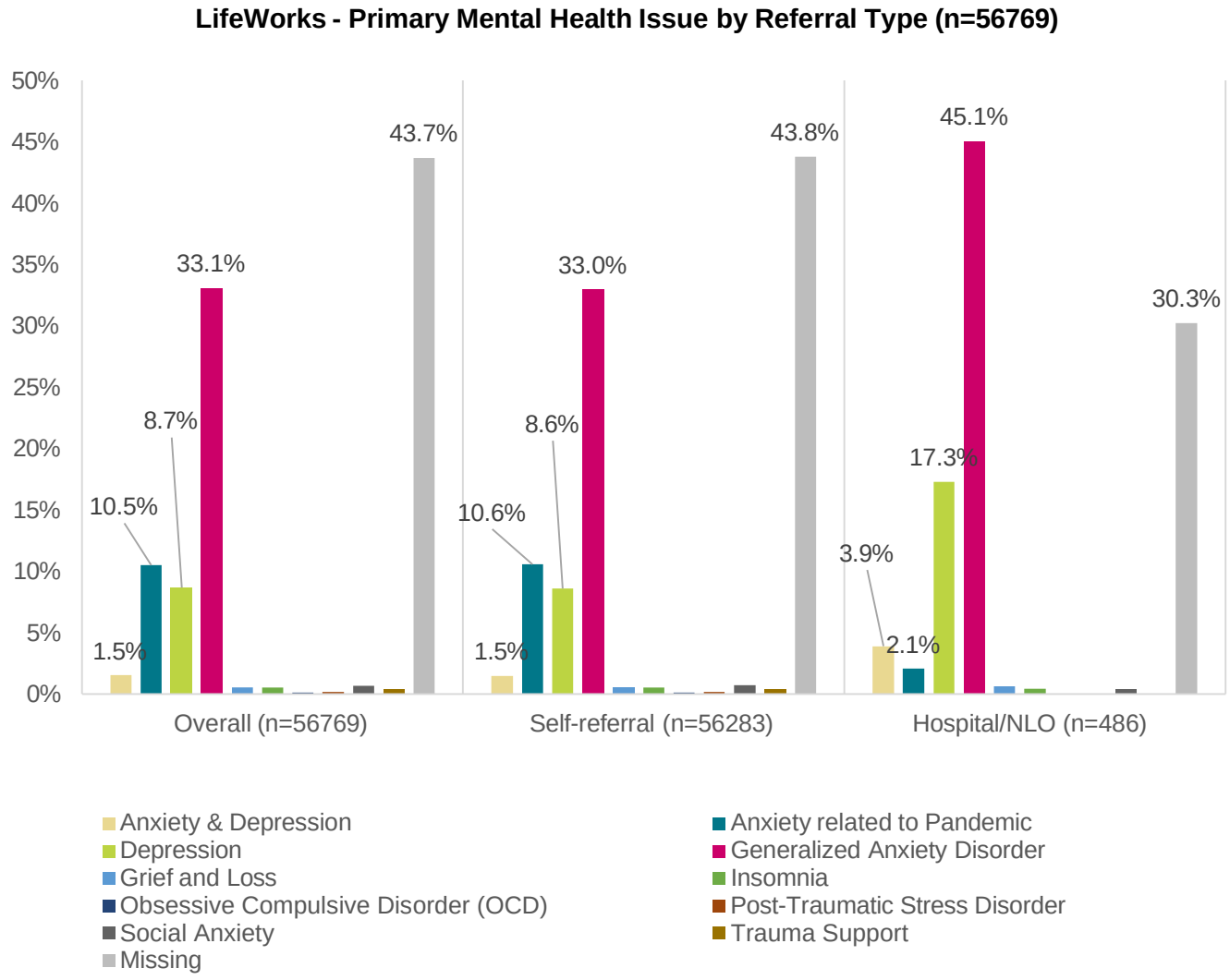


- Key insight from this graph: For LifeWorks, each unit increase of module completion rate was associated with significant clinical improvement in PHQ-9 scores when controlling for other factors (population centre size, gender, healthcare worker status, post-secondary student status, baseline PHQ-9 scores, and therapist messages). Healthcare worker status, higher baseline PHQ-9 scores, and greater number of therapist messages were all significantly associated with change in PHQ-9 scores (improvement in outcome).

Note: Clinical improvement was determined based on IAPT reliable change index which accounts for measurement error in the PHQ-9 scale. A 6-point change between first and last PHQ-9 score was a reliable change (2). These models provide general estimates on the association between program completion and improvement in outcomes derived from administrative data. It can be conclusively stated that more modules completed increased the chances of improvement in outcomes. Due to the differences between MindBeacon and LifeWorks' iCBT programs however, we cannot make direct comparisons between service providers using these estimates.

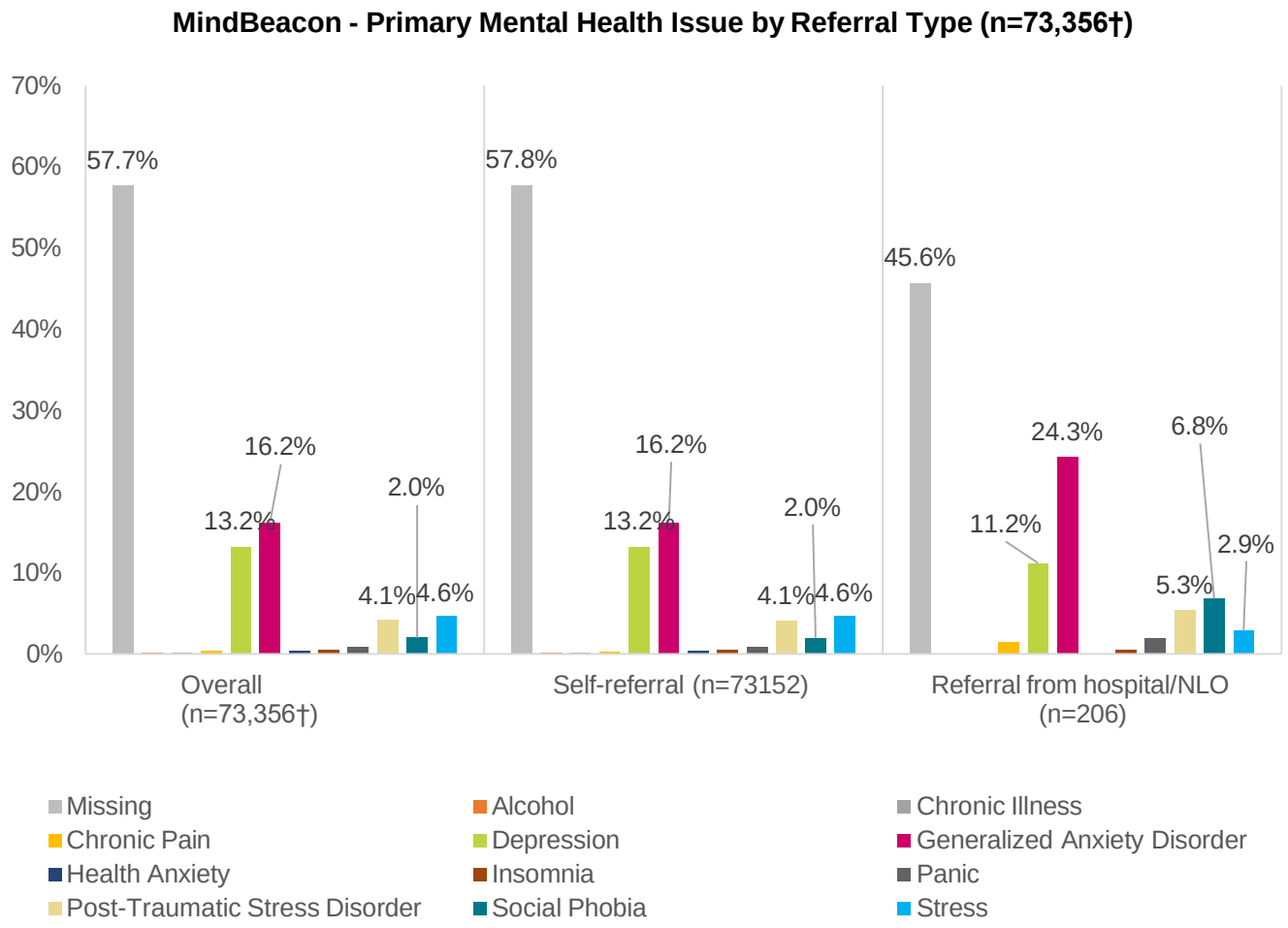
8.7 Appendix G: Primary Mental Health Issue by Referral Type

Figure 20 LifeWorks – Primary Mental Health Issue by Referral Type.



- Key insight from the graph above: For LifeWorks clients that were self-referred to the program, around 43.8% of clients were missing data on primary mental health issue and 33.0% of clients had generalized anxiety disorder. Over 45.1% of clients that were referred from hospitals/Network Lead Organizations had generalized anxiety disorder.

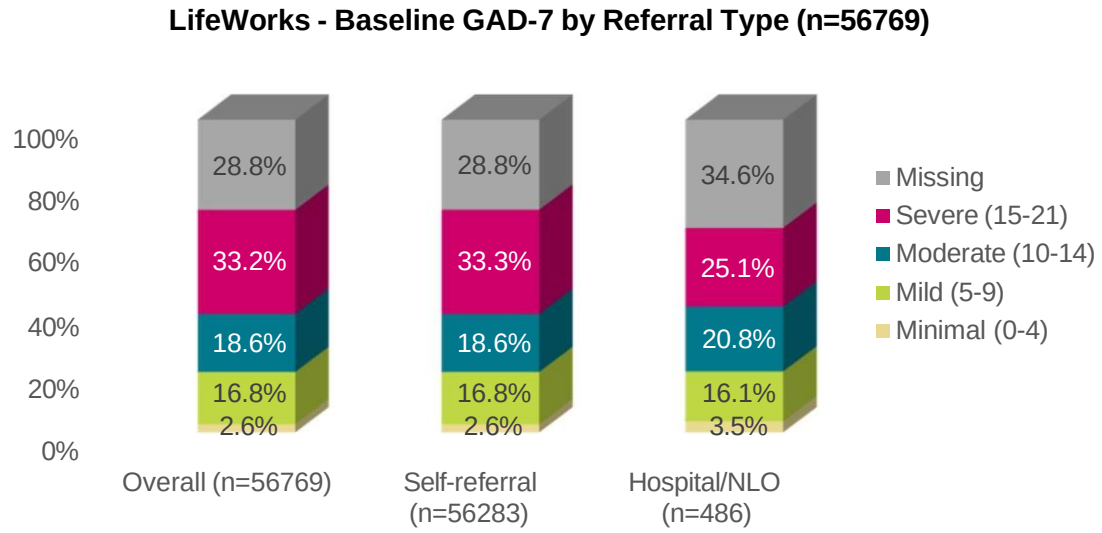
Figure 21 MindBeacon – Primary Mental Health Issue by Referral Type.



- Key insight from the graph above: For MindBeacon clients that were self-referred to the program, around 57.8% of clients were missing data on primary mental health issue while 16.2% of clients had generalized anxiety disorder. Over 24.3% of clients that were referred from hospitals/Network Lead Organizations had generalized anxiety disorder.

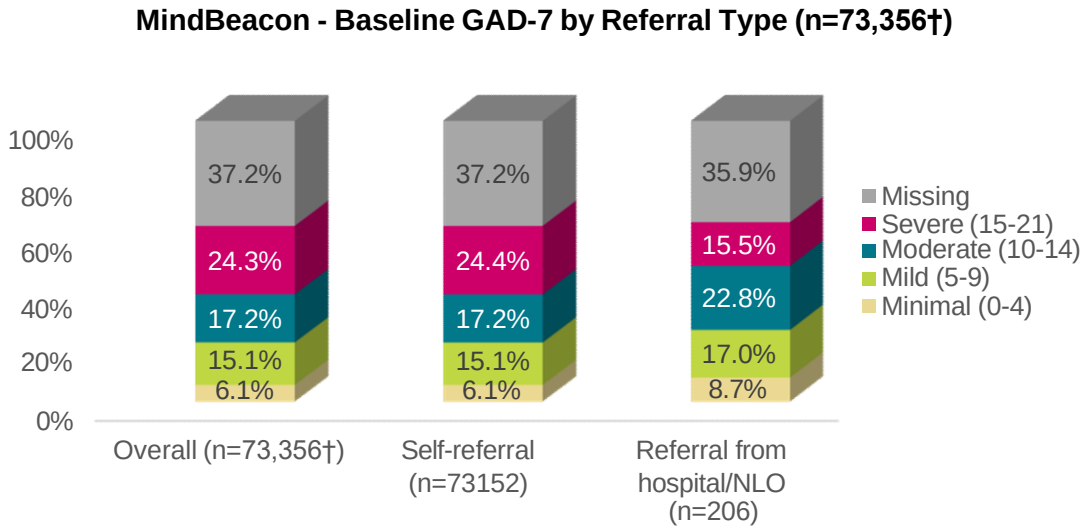
8.8 Appendix H: Baseline GAD-7 and PHQ-9 by Referral Type

Figure 22 LifeWorks – Baseline GAD-7 by Referral Type.



- Key insight from the graph above: For LifeWorks, 33.3% of clients that were self-referred to the program had severe baseline anxiety compared to 25.1% of clients that were referred from hospitals/Network Lead Organizations who had severe baseline anxiety.

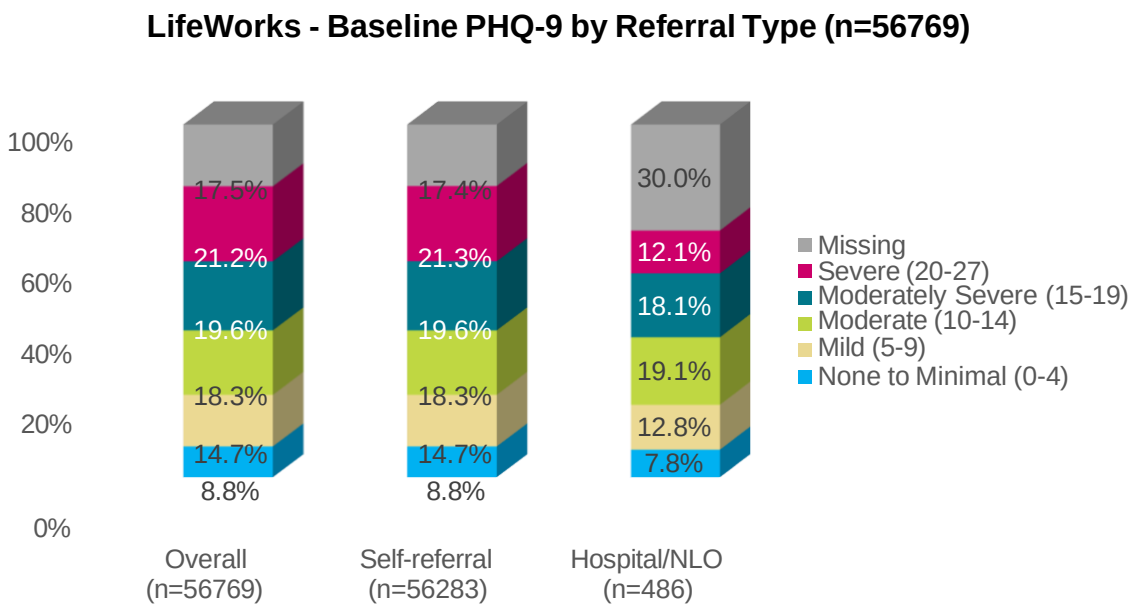
Figure 23 MindBeacon – Baseline GAD-7 by Referral Type.



- Key insight from the graph above: For MindBeacon, 24.4% of clients that were self-referred to the program had severe baseline anxiety compared to 15.5% of

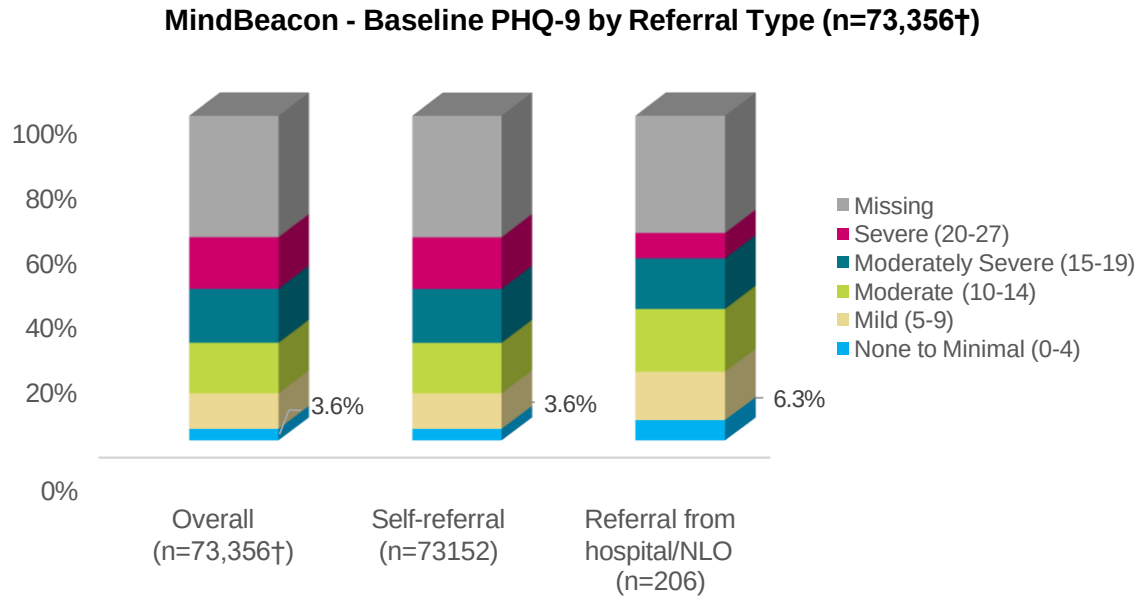
clients that were referred from hospitals/Network Lead Organizations who had severe baseline anxiety.

Figure 24 LifeWorks – Baseline PHQ-9 by Referral Type.



- Key insight from the graph above: For LifeWorks, 21.3% of clients that were self-referred to the program had severe baseline depression compared to 12.1% of clients that were referred from hospitals/Network Lead Organizations who had severe baseline depression.

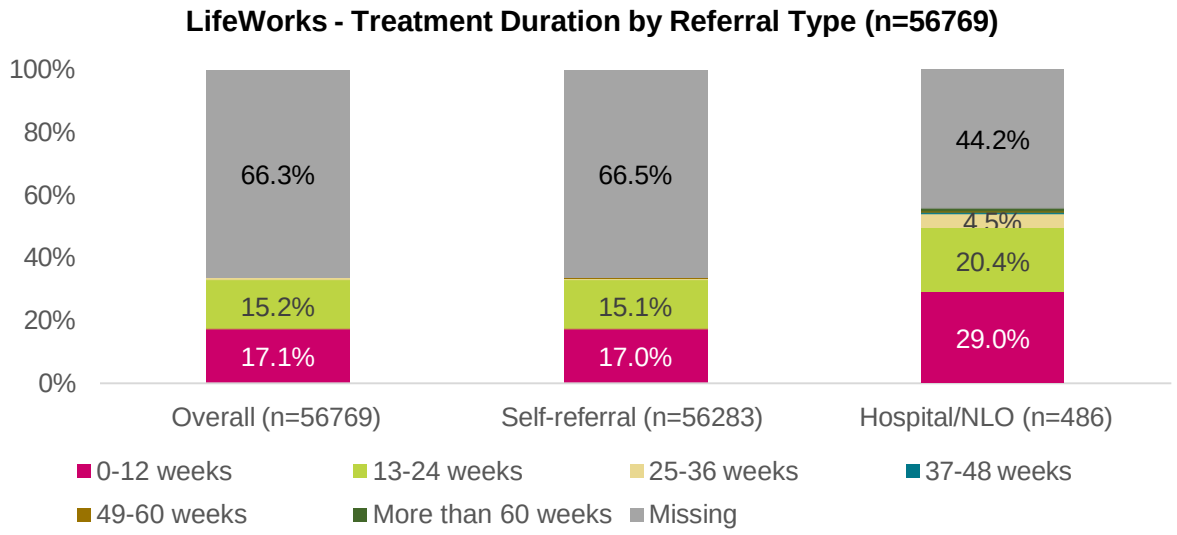
Figure 25 MindBeacon – Baseline PHQ-9 by Referral Type.



- Key insight from the graph above: For MindBeacon, 15.8% of clients that were self-referred to the program had severe baseline depression compared to 7.8% of clients that were referred from hospitals/Network Lead Organizations who had severe baseline depression.

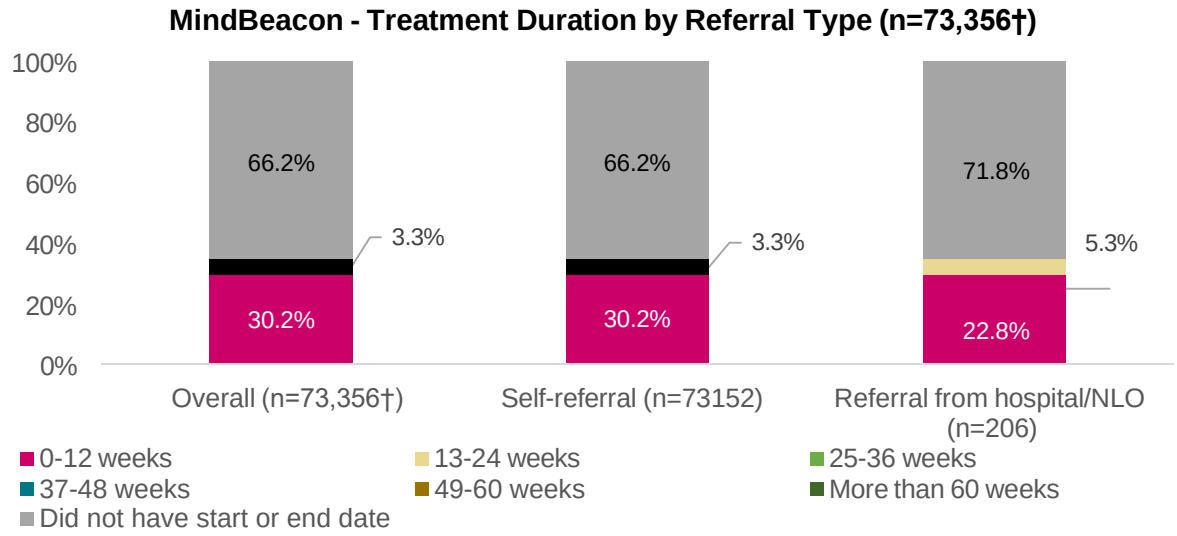
8.9 Appendix I: Treatment Duration by Referral Type

Figure 26 LifeWorks – Treatment Duration by Referral Type.



- Key insight from the graph above: For LifeWorks, 32.1% of clients that were self-referred to the program had completed the program in 0-24 weeks compared to 49.4% of clients that were referred from hospitals/Network Lead Organizations.

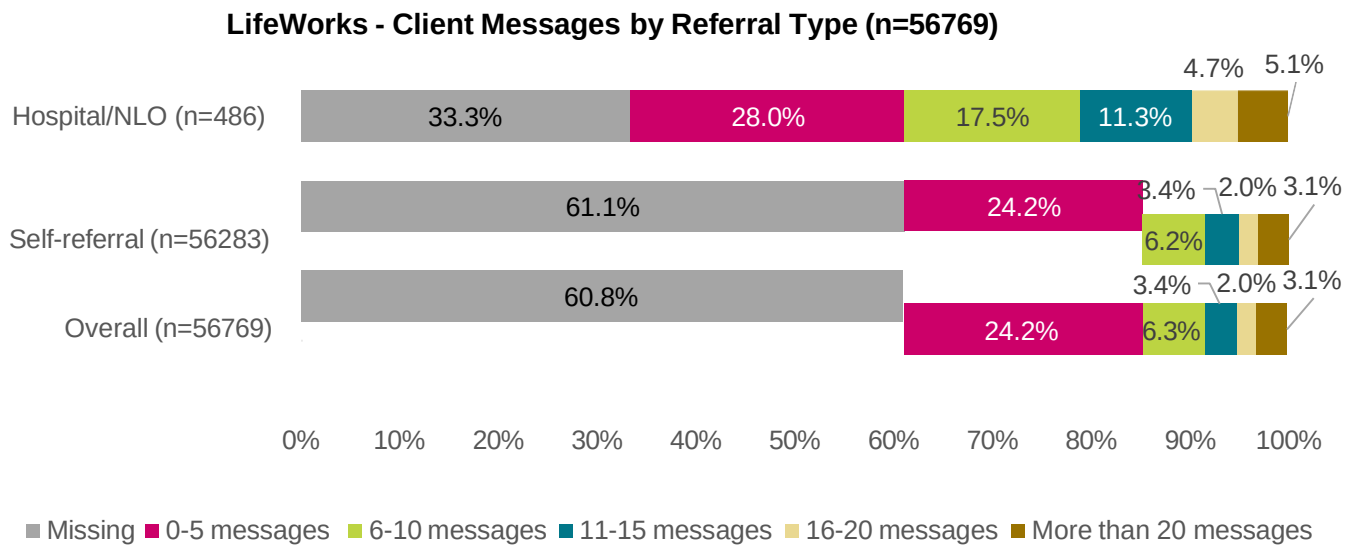
Figure 27 MindBeacon – Treatment Duration by Referral Type.



- Key insight from the graph above: For MindBeacon, 33.5% of clients that were self-referred to the program had completed the program in 0-24 weeks compared to 28.1% of clients that were referred from hospitals/Network Lead Organizations.

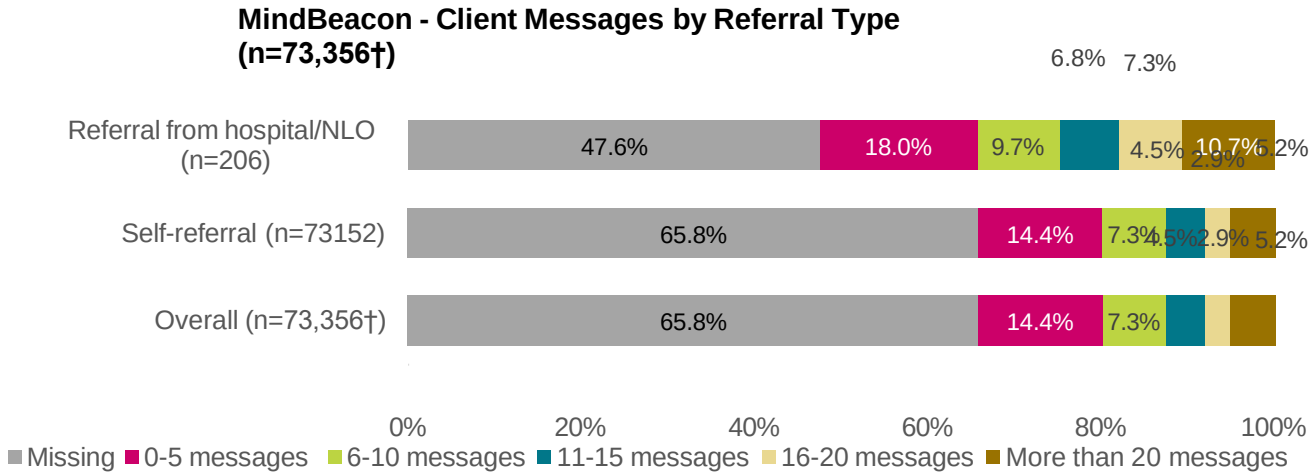
8.10 Appendix J: Client and Therapist Messages by Referral Type

Figure 28 LifeWorks - Client Messages by Referral Type.



- Key insight from the graph above: For LifeWorks, 6.2% of clients that were self-referred to the program sent about 6-10 messages to their therapist compared to 17.5% of clients that were referred from hospitals/Network Lead Organizations sent about 6-10 messages to their therapist.

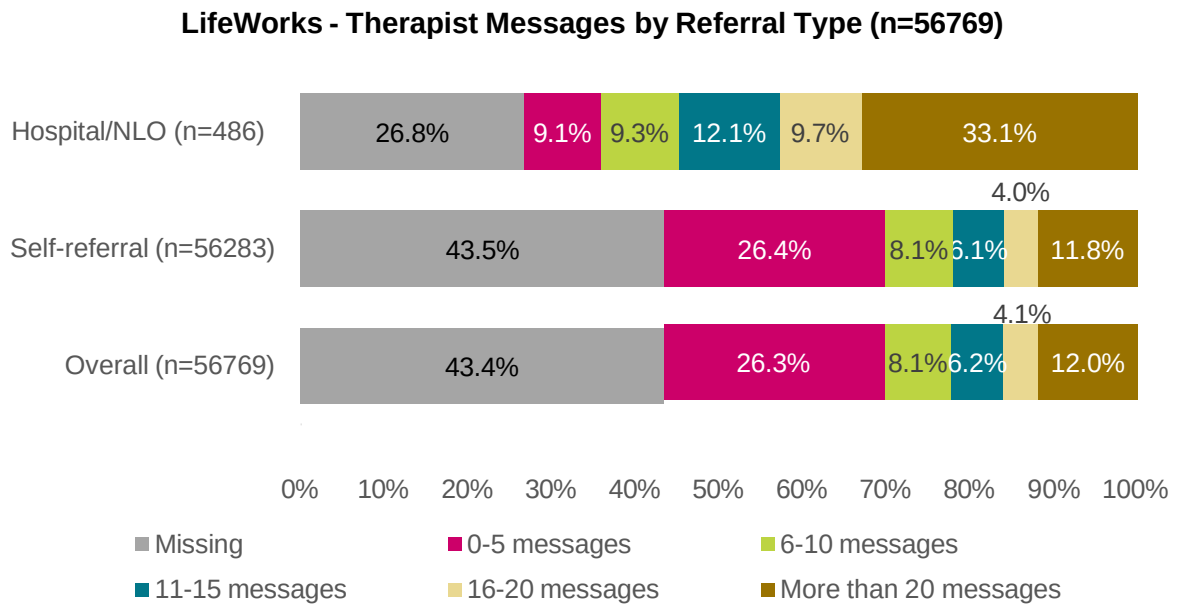
Figure 29 MindBeacon - Client Messages by Referral Type.



- Key insight from the graph above: For MindBeacon, 7.3% of clients that were self-referred to the program sent about 6-10 messages to their therapist compared to 9.7% of clients that were referred from hospitals/Network Lead

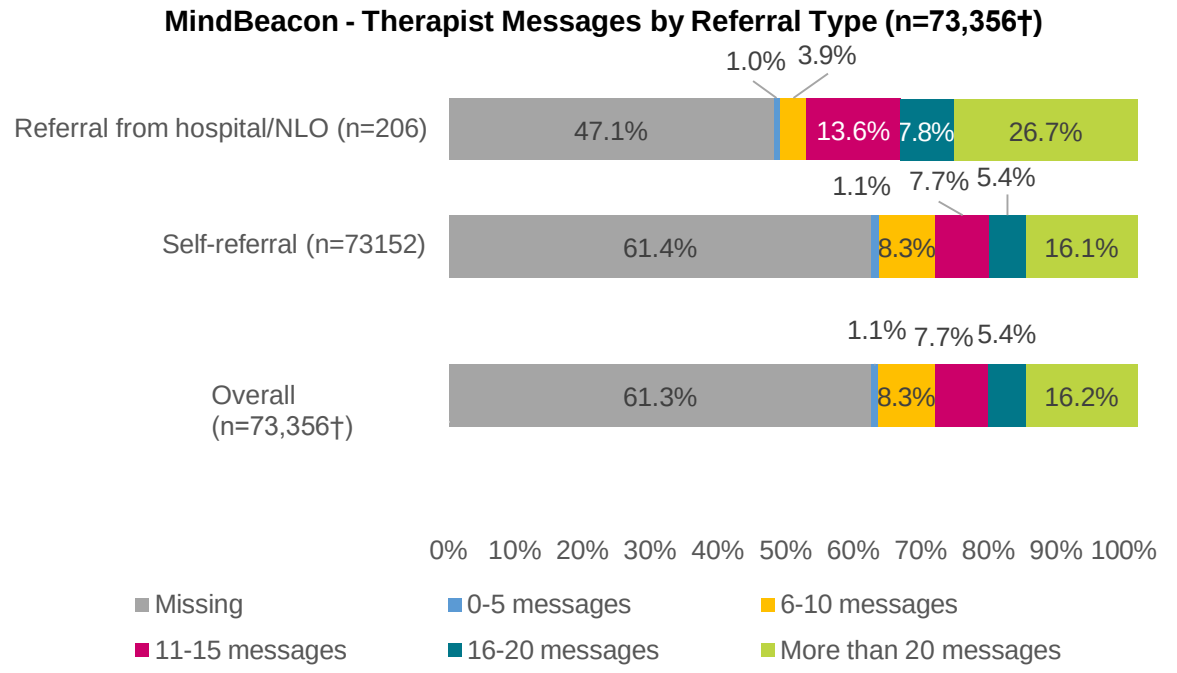
Organizations sent about 6-10 messages to their therapist.

Figure 30 LifeWorks - Therapist Messages by Referral Type



- Key insight from the graph above: For LifeWorks, 11.8% of clients that were self-referred to the program received more than 20 messages from their therapist compared to 33.1% of clients that were referred from hospitals/Network Lead Organizations received more than 20 messages from their therapist.

Figure 31 MindBeacon - Therapist Messages by Referral Type

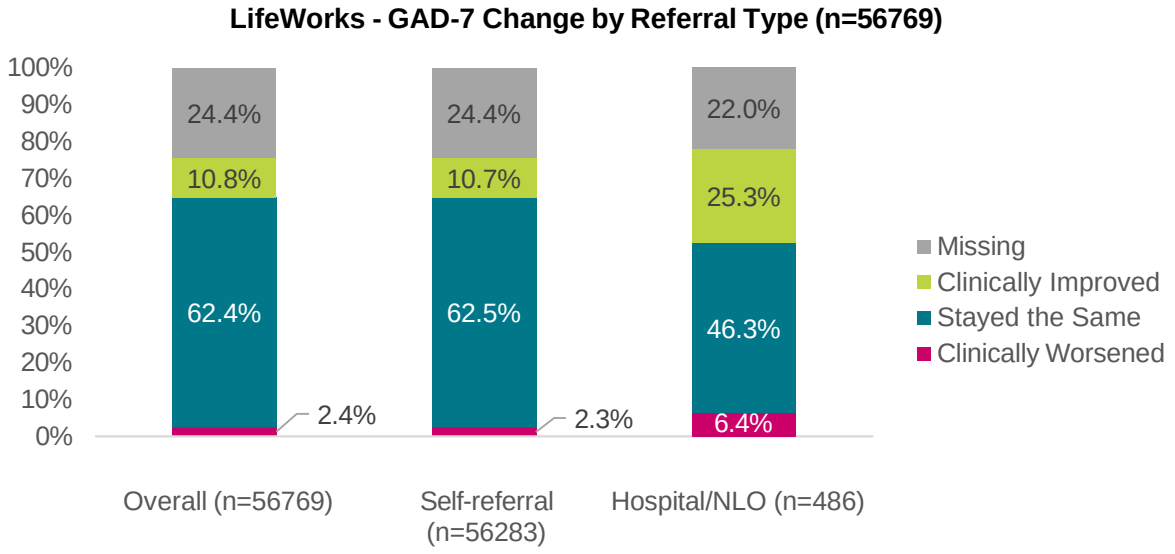


- Key insight from the graph above: For MindBeacon, 16.1% of clients that were self-referred to the program received more than 20 messages from their therapist compared to 26.7% of clients that were referred from hospitals/Network Lead

Organizations received more than 20 messages from their therapist.

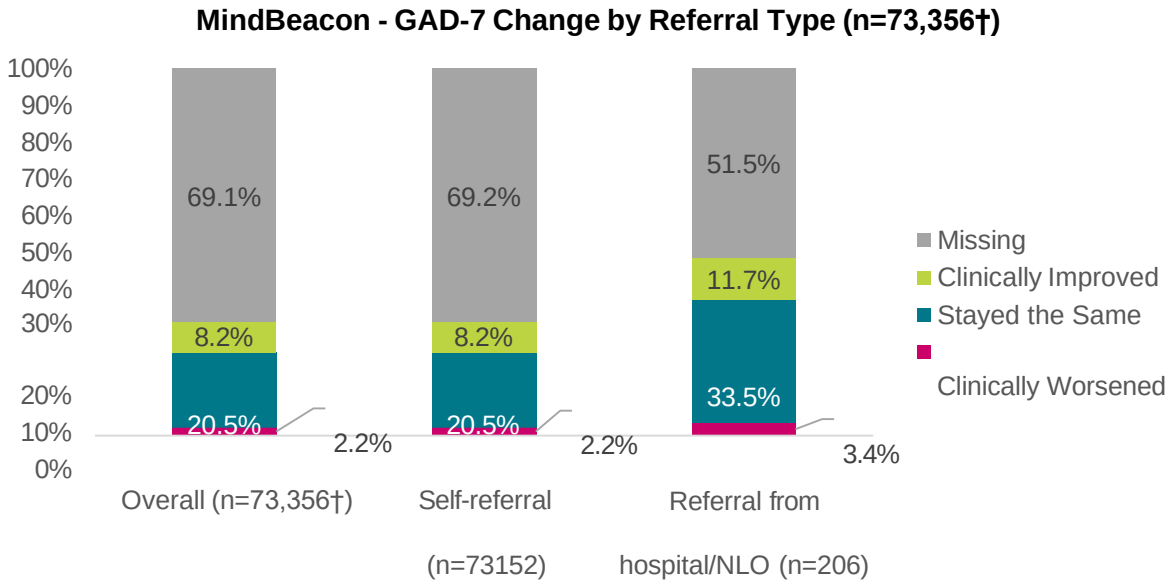
8.11 Appendix K: Change in Outcome Measure by Referral Type

Figure 32 LifeWorks – GAD-7 Change by Referral Type



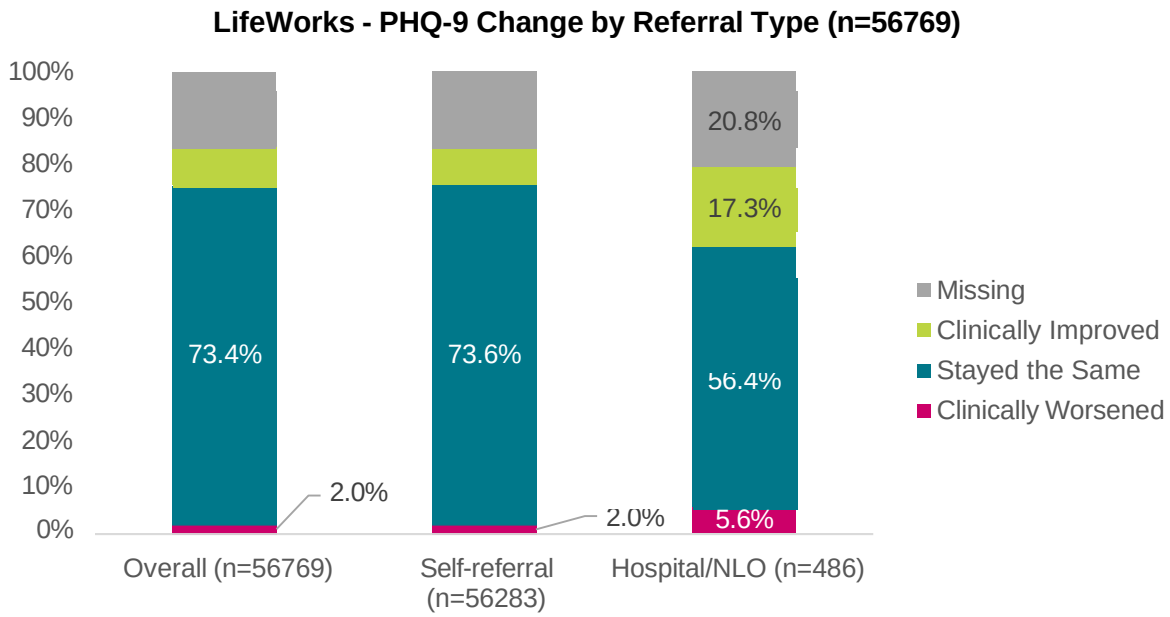
- Key insight from the graph above: For LifeWorks, 10.7% of clients that were self-referred to the program saw clinical improvement between first and last GAD-7 scores while in the program compared to 25.3% of clients referred from hospitals/NLOs.

Figure 33 MindBeacon – GAD-7 Change by Referral Type



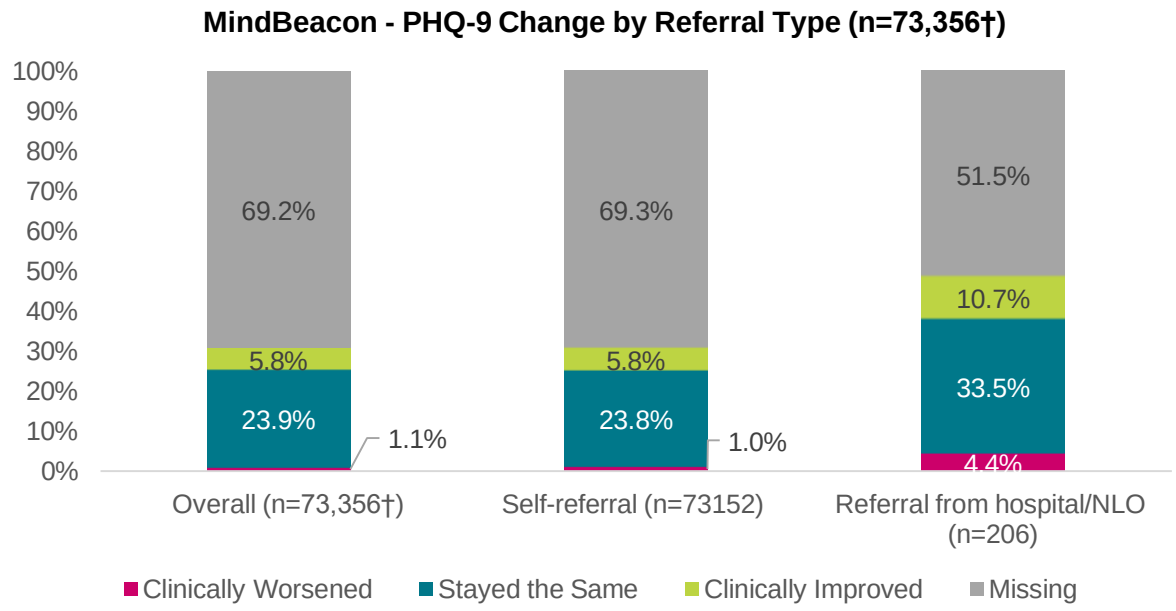
- Key insight from the graph above: For MindBeacon, 8.2% of clients that were self-referred to the program saw clinical improvement between first and last GAD-7 scores while in the program compared to 11.7% of clients referred from hospitals/NLOs.

Figure 34 LifeWorks - PHQ-9 Change by Referral Type



- Key insight from the graph above: For LifeWorks, 7.8% of clients that were self-referred to the program saw clinical improvement between first and last PHQ-9 scores while in the program compared to 17.3% of clients referred from hospitals/NLOs.

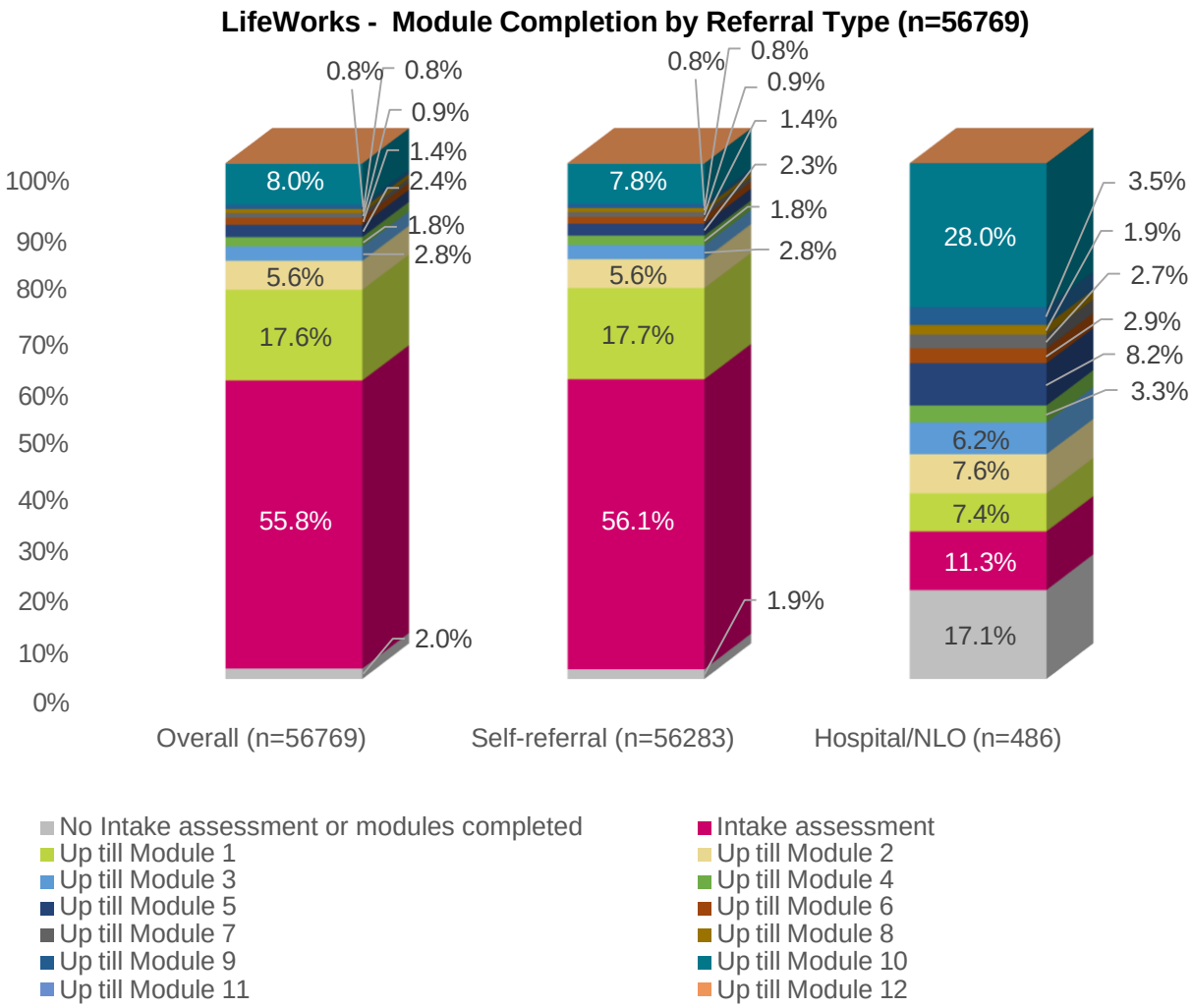
Figure 35 MindBeacon - PHQ-9 Change by Referral Type



- Key insight from the graph above: For MindBeacon, 5.8% of clients that were self-referred to the program saw clinical improvement between first and last PHQ-9 scores while in the program compared to 10.7% of clients referred from hospitals/NLOs.

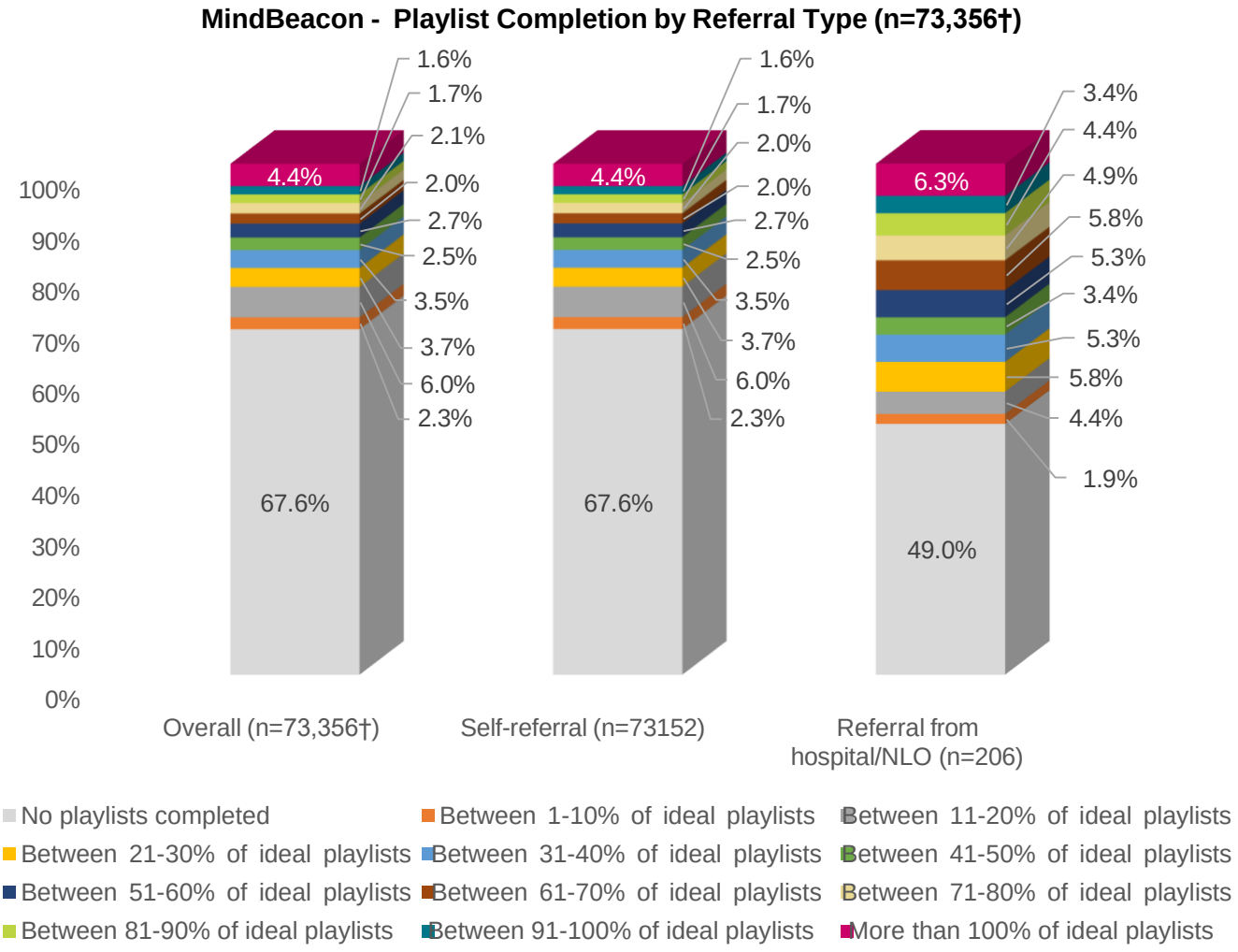
8.12 Appendix L: Module/Playlist Completion by Referral Type

Figure 36 LifeWorks – Module Completion by Referral Type



- Key insight from the graph above: For LifeWorks, 9.4 % of clients that were self-referred completed more than 8 modules compared to 33.4% of clients referred from hospitals/NLOs completed more than 8 modules. Around 56.1 % of clients that were self-referred completed only an intake assessment compared to 11.3% of clients referred from hospitals/NLOs that completed only an intake assessment.

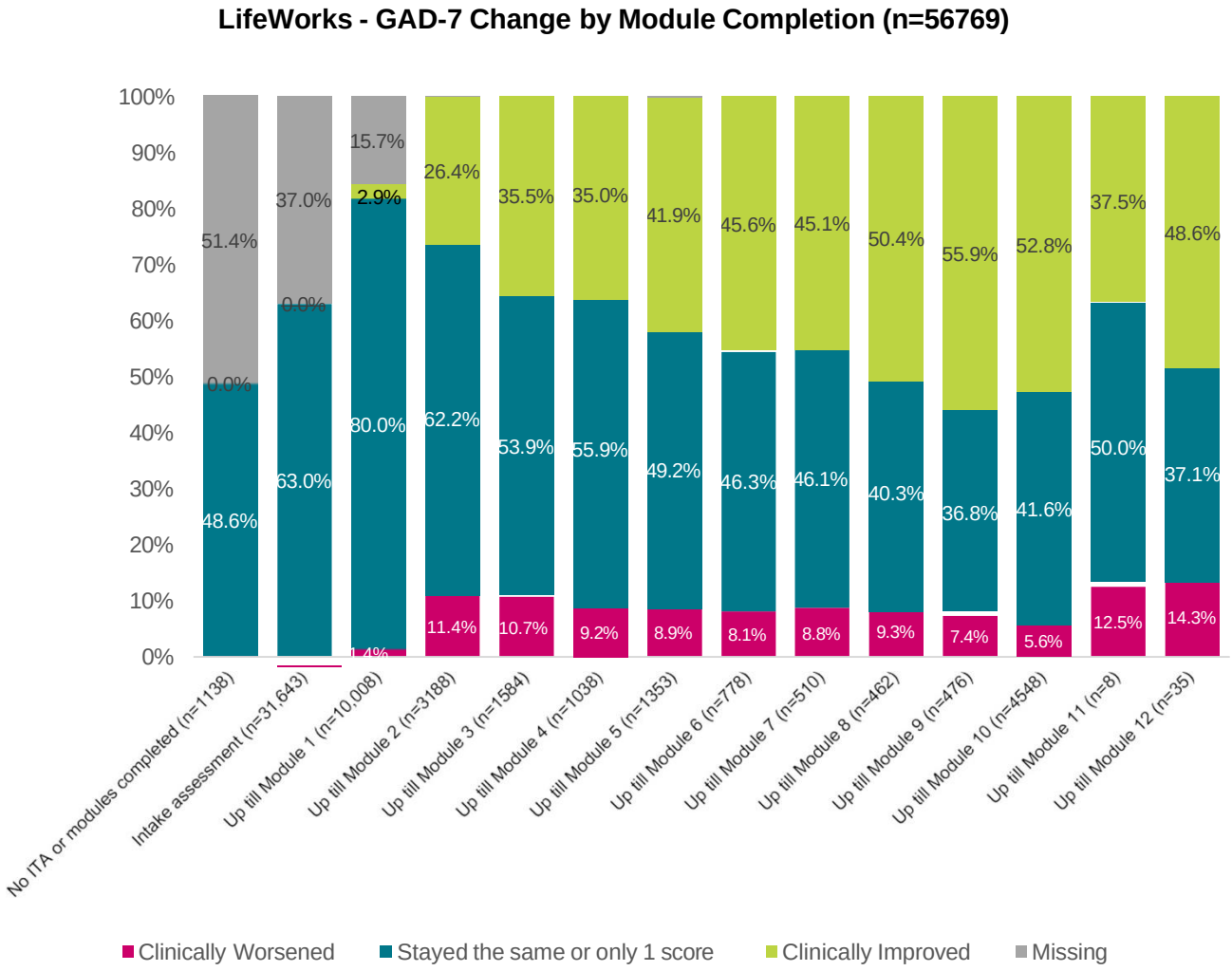
Figure 37 MindBeacon – Playlist Completion by Referral Type



- Key insight from the graph above: For MindBeacon, 7.7 % of clients that were self-referred completed more than 80% of ideal playlists compared to 14.1% of clients referred from hospitals/NLOs completed more than 80% of ideal playlists.

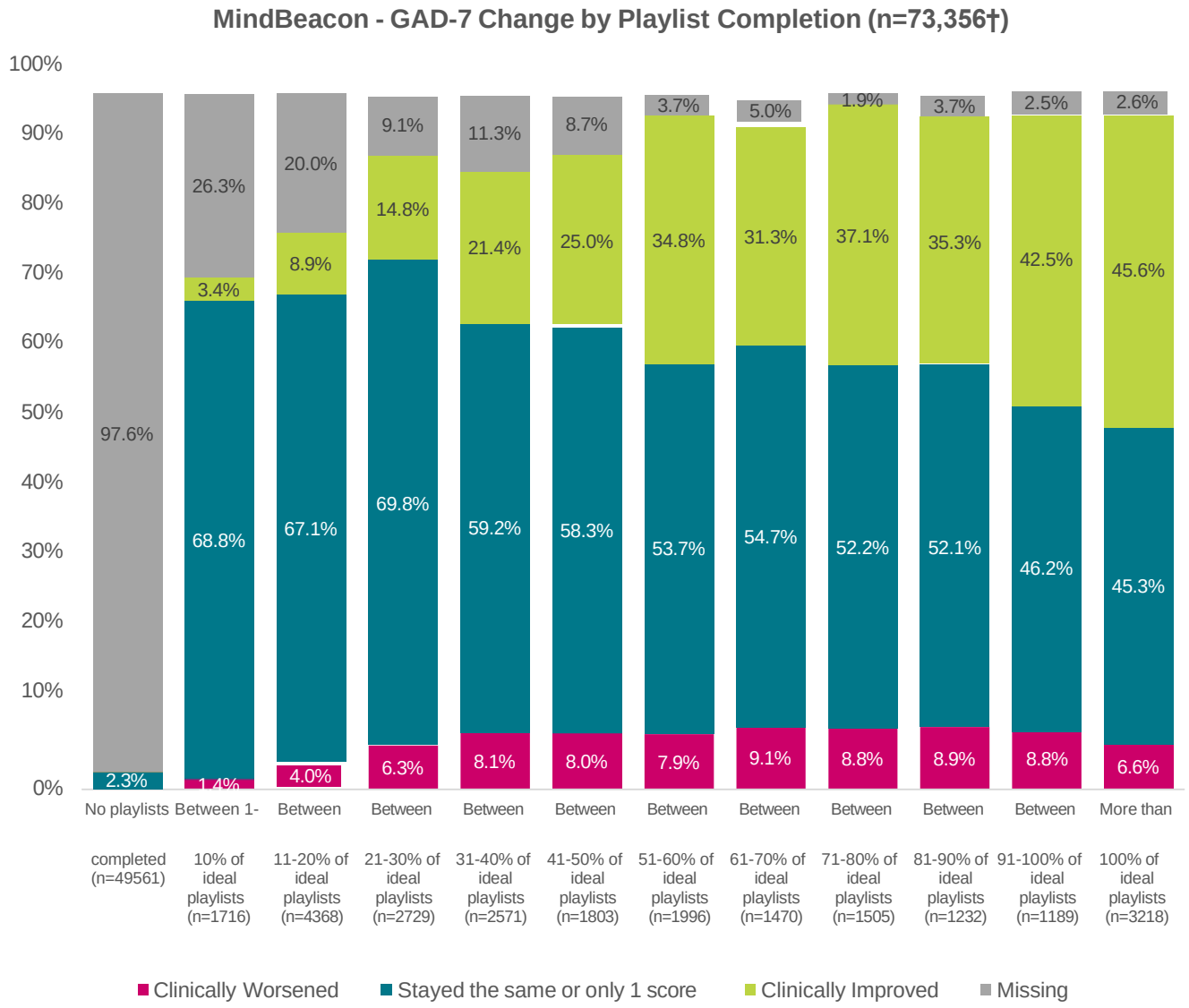
8.13 Appendix M: Change in Outcome Measure by Module/Playlist Completion

Figure 38 LifeWorks - GAD-7 Change by Module Completion



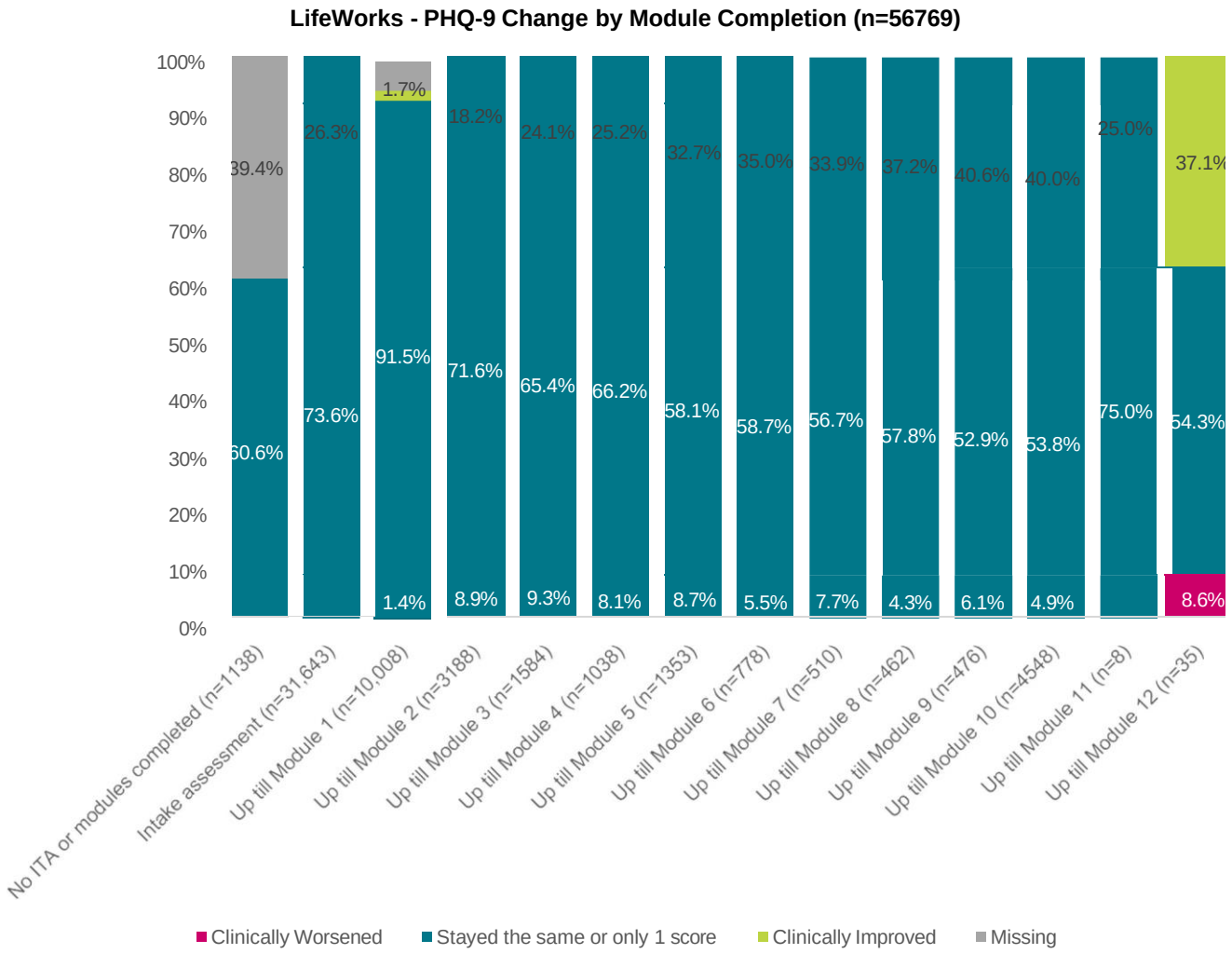
- Key insight from the graph above: For LifeWorks clients, improvement in GAD-7 scale outcome measures can be seen as the program progresses. Change in GAD-7 scale is strengthened with each successive module completed with clients completing up till 9 modules deriving the greatest clinical benefit at 55.9%. Please note 10 modules were considered the maximum number of modules necessary for full program completion. Modules 11 and 12 were only provided to clients assessed for trauma support or post-traumatic stress disorder as their primary health condition.

Figure 39 MindBeacon - GAD-7 Change by Playlist Completion



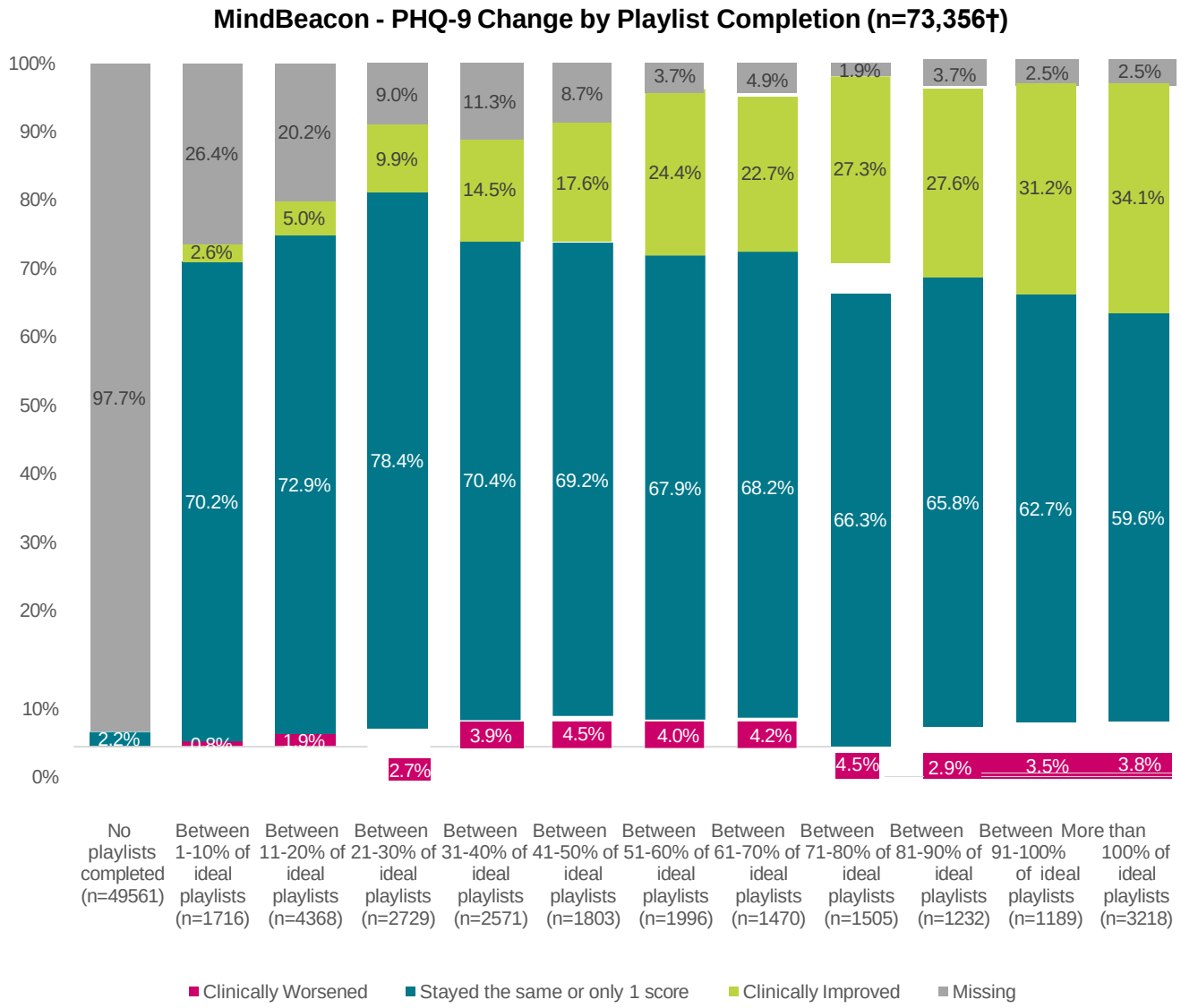
- Key insight from the graph above: For MindBeacon clients, improvement in GAD-7 scale outcome measures can be seen as the program progresses. Change in GAD-7 scale is strengthened with each successive playlist completion decile with clients completing more than 100% of playlists deriving the greatest clinical benefit at 45.6%.

Figure 40 LifeWorks - PHQ-9 Change by Module Completion



- Key insight from the graph above: For LifeWorks clients, improvement in PHQ-9 scale outcome measures can be seen as the program progresses. Change in PHQ-9 scale is strengthened with each successive module completed with clients completing up till 9 modules deriving the greatest clinical benefit at 40.6%. Please note 10 modules were considered the maximum number of modules necessary for full program completion. Modules 11 and 12 were only provided to clients assessed for trauma support or post-traumatic stress disorder as their primary health condition.

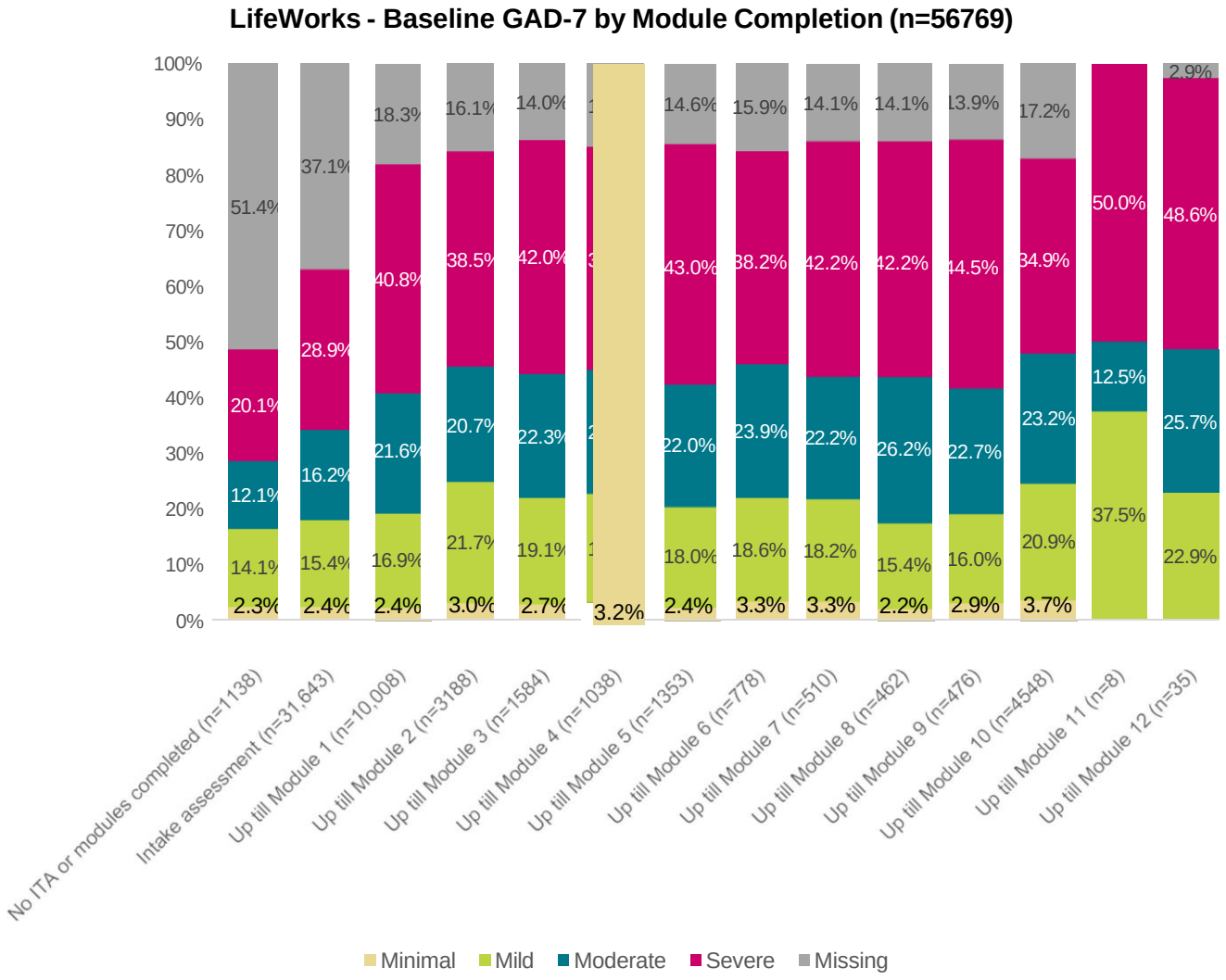
Figure 41 MindBeacon - PHQ-9 Change by Playlist Completion



- Key insight from the graph above: For MindBeacon clients, improvement in PHQ-9 scale outcome measures can be seen as the program progresses. Change in PHQ-9 scale is strengthened with each successive playlist completion decile with clients completing more than 100% of playlists deriving the greatest clinical benefit at 34.1%.

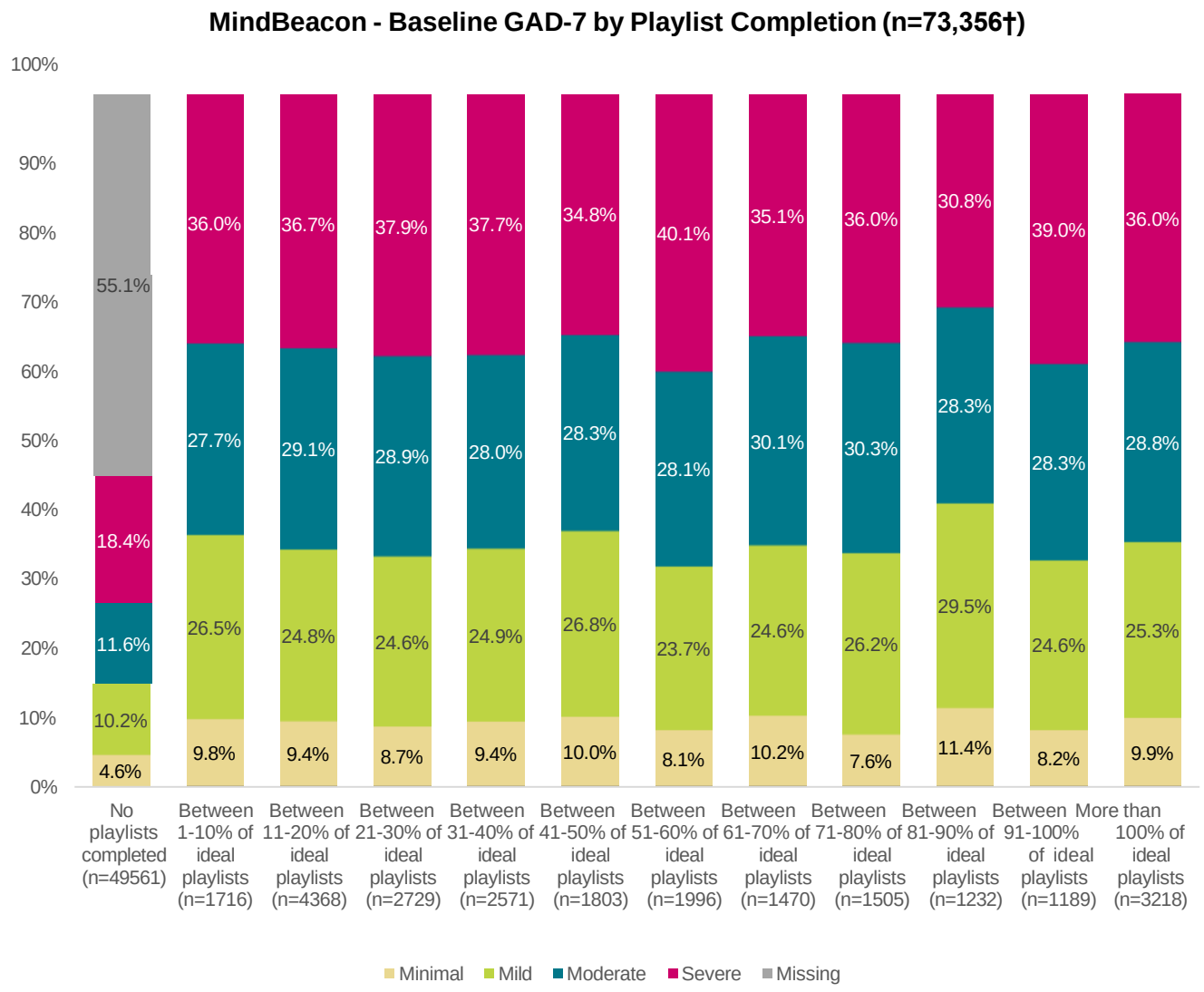
8.14 Appendix N: Baseline GAD-7/PHQ-9 by Module/Playlist Completion

Figure 42 LifeWorks - Baseline GAD-7 by Module Completion



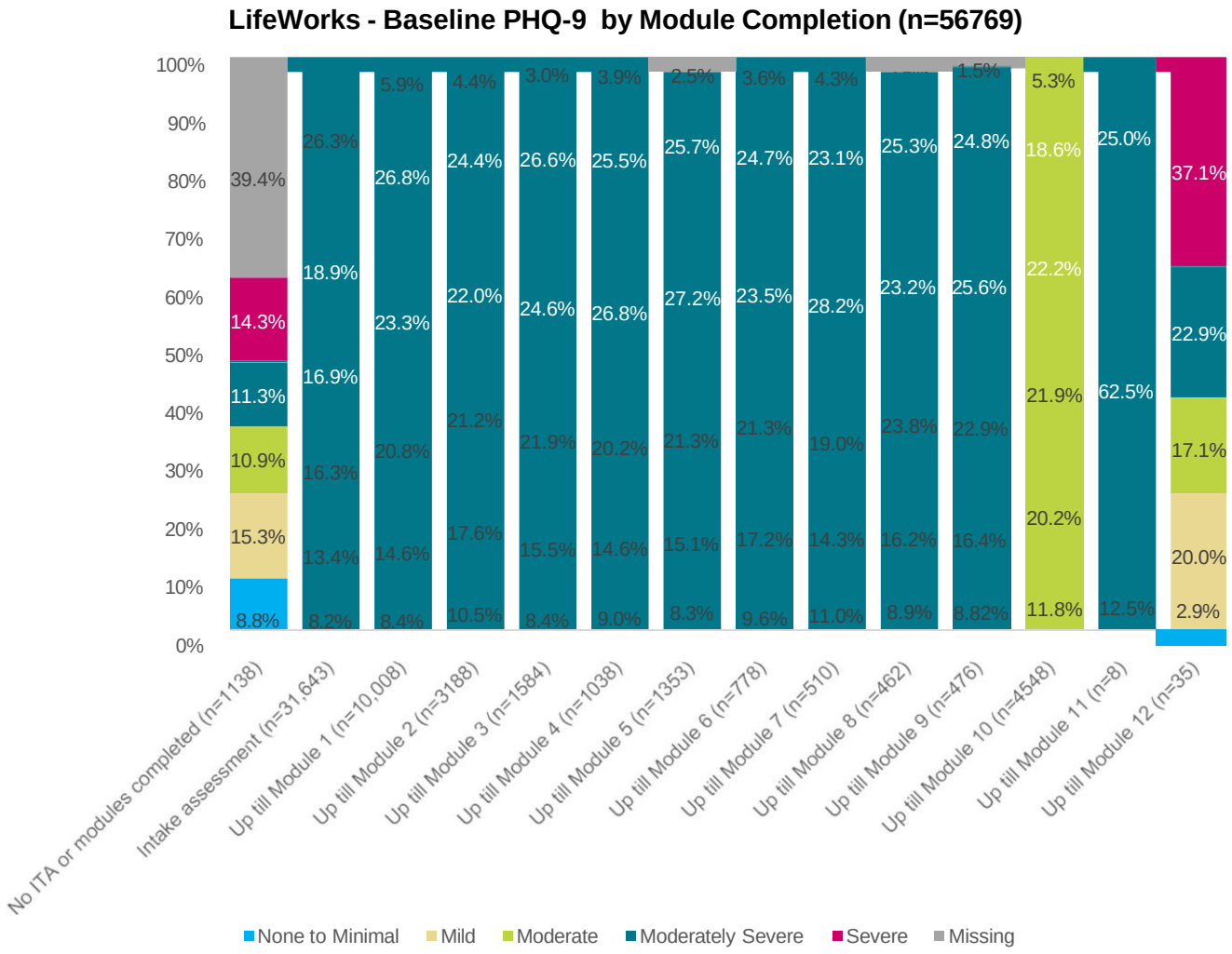
- Key insight from the graph above: While the relative number of clients completing modules reduced with each successive module, the percent of clients with baseline mild to moderate anxiety completing 10 or more modules in the program was 44.1%. Please note 10 modules were considered the maximum number of modules necessary for full program completion. Modules 11 and 12 were only provided to clients assessed for trauma support or post-traumatic stress disorder as their primary health condition.

Figure 43 MindBeacon - Baseline GAD-7 by Playlist Completion



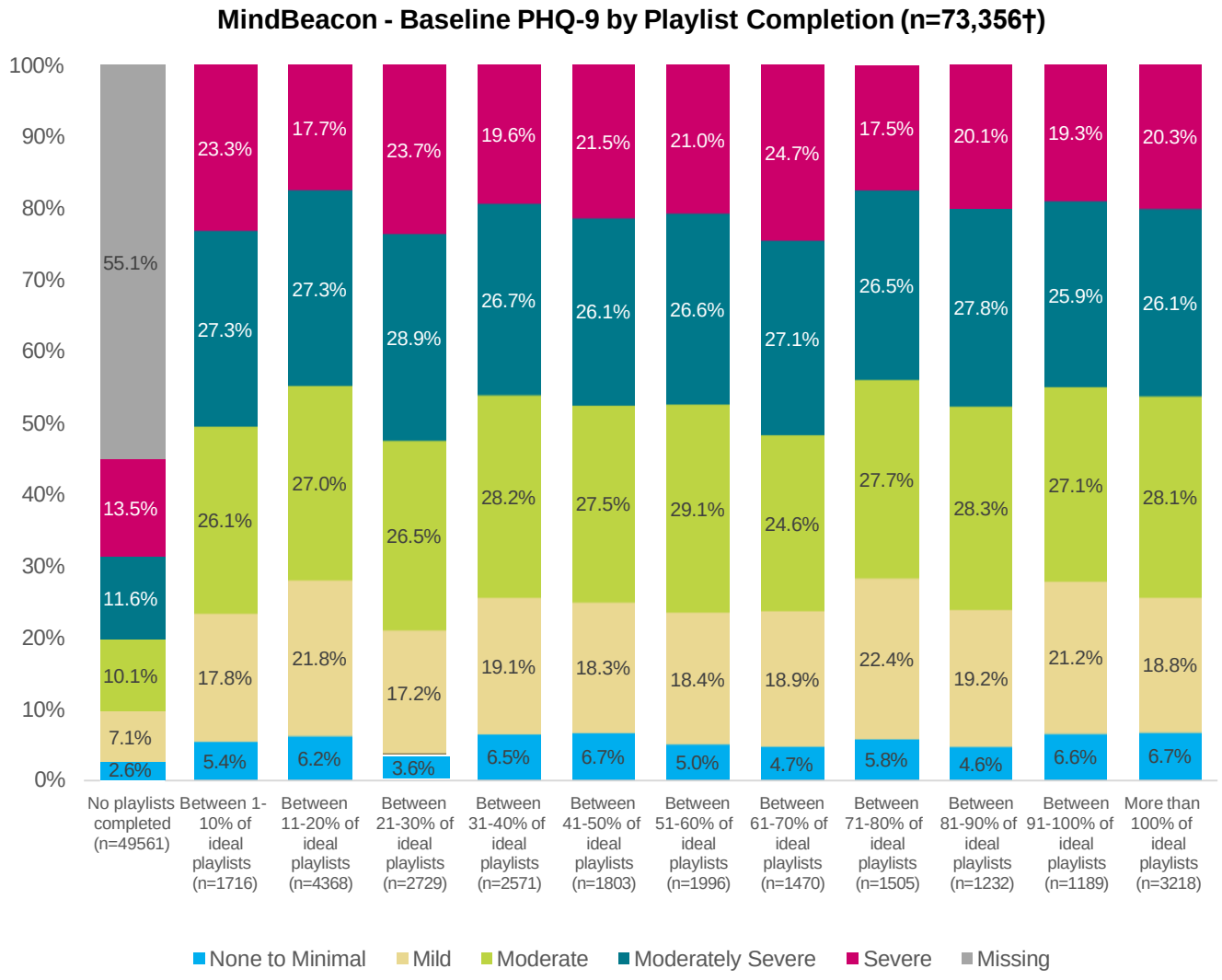
- Key insight from the graph above: While the relative number of clients completing playlists reduced over time, the percent of clients with baseline mild to moderate anxiety completing more than 100% of playlists in the program was 54.1%.

Figure 44 LifeWorks - Baseline PHQ-9by Module Completion



- Key insight from the graph above: While the relative number of clients completing modules reduced with each successive module, the percent of clients with baseline mild to moderate depression completing 10 or more modules in the program was 42.1%. Please note 10 modules were considered the maximum number of modules necessary for full program completion. Modules 11 and 12 were only provided to clients assessed for trauma support or post-traumatic stress disorder as their primary health condition.

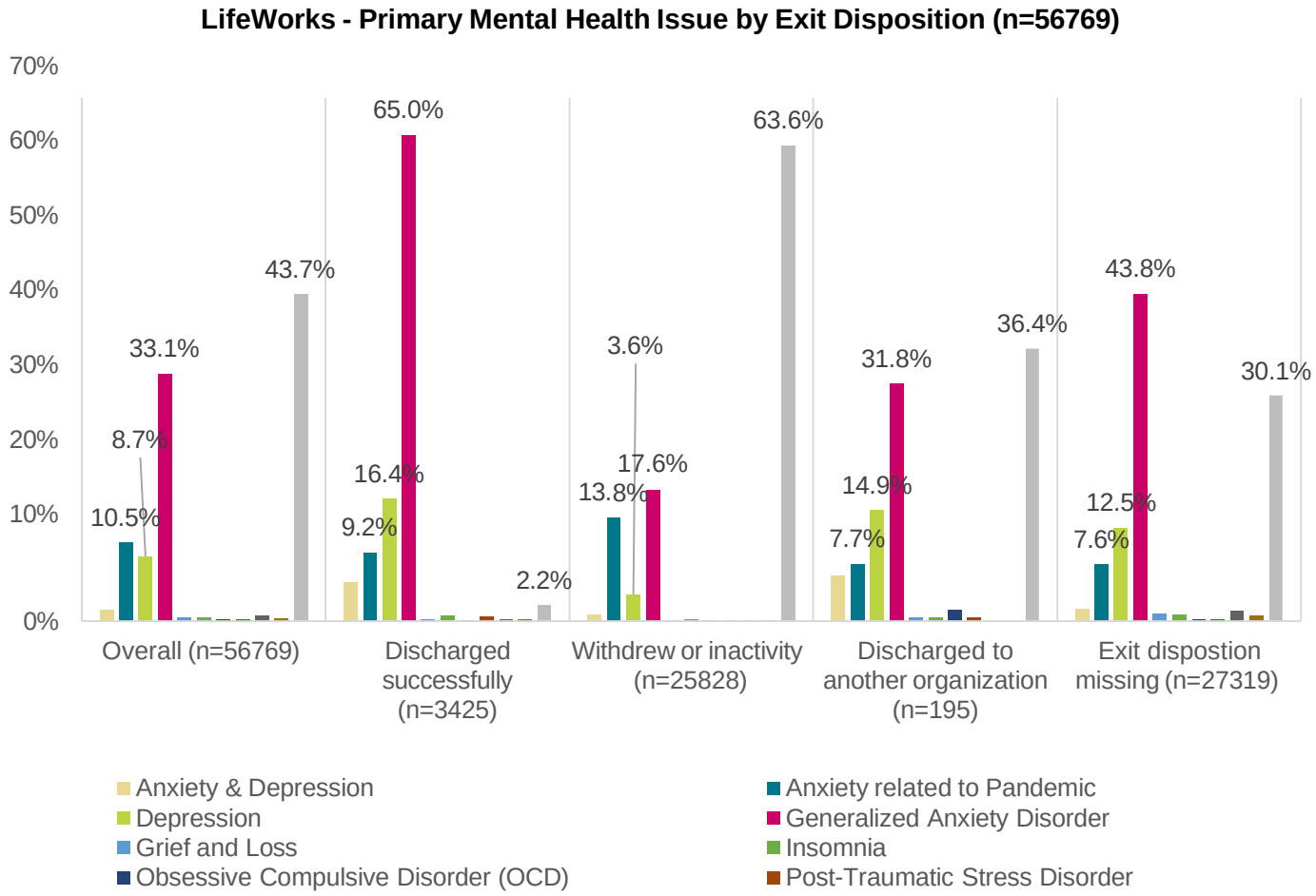
Figure 45 MindBeacon - Baseline PHQ-9 by Playlist Completion



- Key insight from the graph above: While the relative number of clients completing playlists reduced over time, the percent of clients with baseline mild to moderate depression completing more than 100% of playlists in the program was 46.9%.

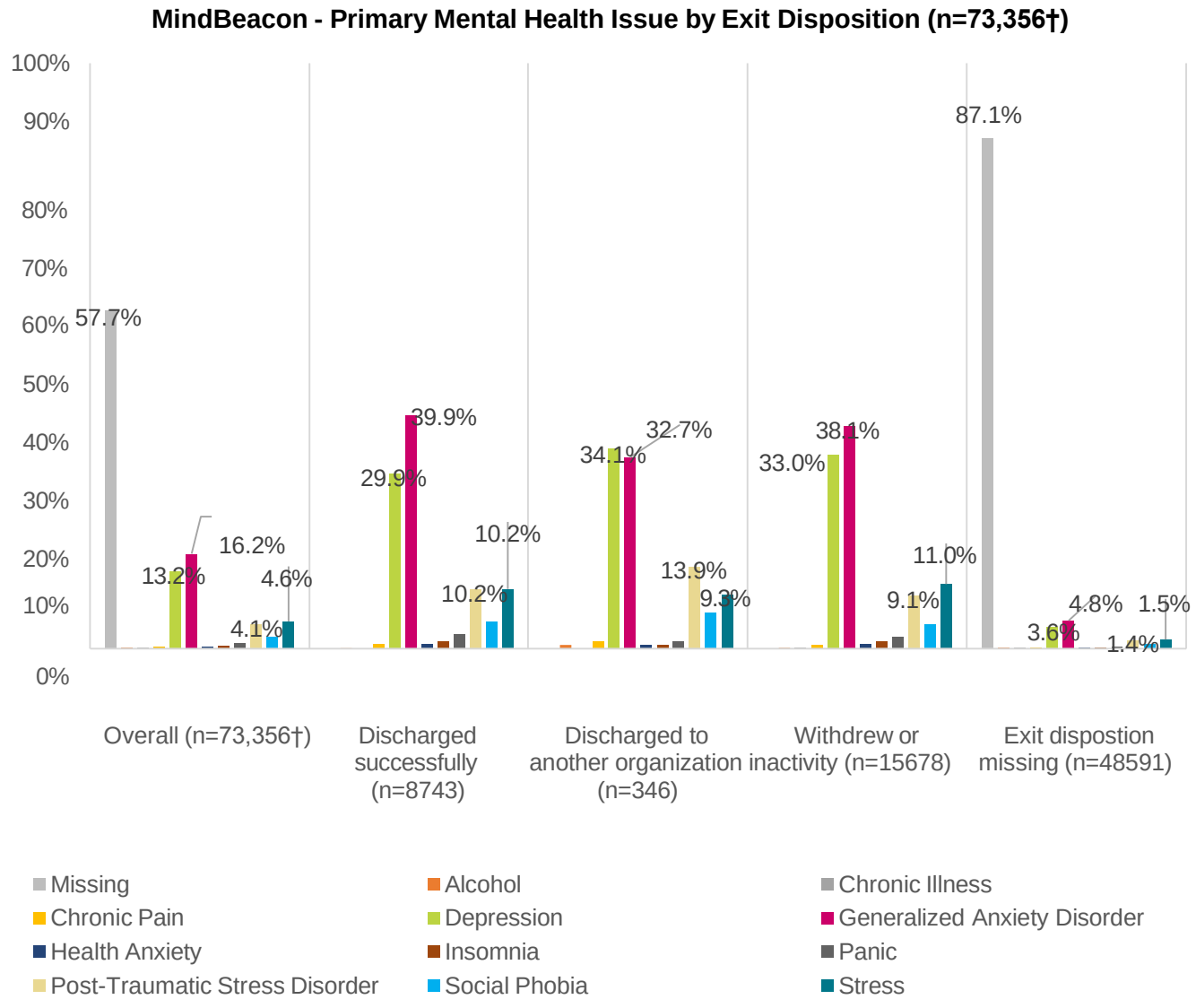
8.15 Appendix O: Primary Mental Health Issue by Exit Disposition

Figure 46 LifeWorks - Primary Mental Health Issue by Exit Disposition



- Key insight from the graph above: For LifeWorks, exit disposition collected discharge outcomes for clients in the program. For clients discharged successfully, the primary mental health issue was generalized anxiety disorder (65.0%) followed by depression (16.4%), and anxiety related to the pandemic (9.2%). Clients assessed for these three conditions presented the bulk of clients that were successfully discharged. Clients missing a primary mental health issue were most likely to withdraw from or be inactive in the program at 63.6%. Clients assessed for generalized anxiety disorder represented 31.8% of clients discharged to another organization.

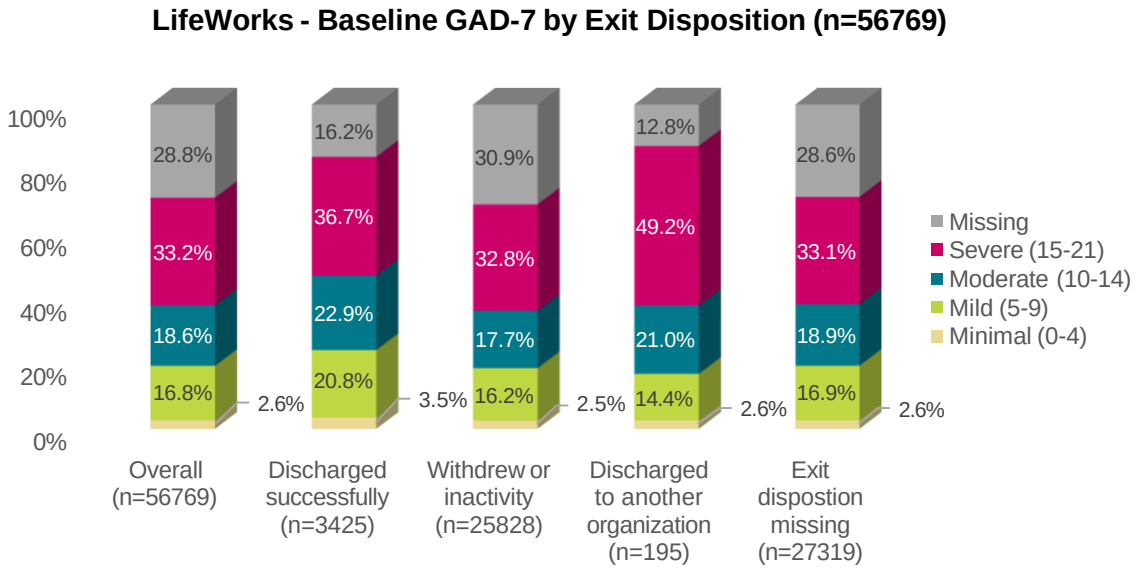
Figure 47 MindBeacon - Primary Mental Health Issue by Exit Disposition



- Key insight from the graph above: For MindBeacon, exit disposition collected discharge outcomes for clients in the program. For clients discharged successfully, the primary mental health issue was generalized anxiety disorder (39.9%) followed by depression (29.9%), and post-traumatic stress disorder and stress (10.2%). Clients assessed for these three conditions presented the bulk of clients that were successfully discharged. Clients assessed for generalized anxiety disorder were most likely to withdraw from or be inactive in the program at 38.1%. Clients assessed for depression represented 34.1% of clients discharged to another organization.

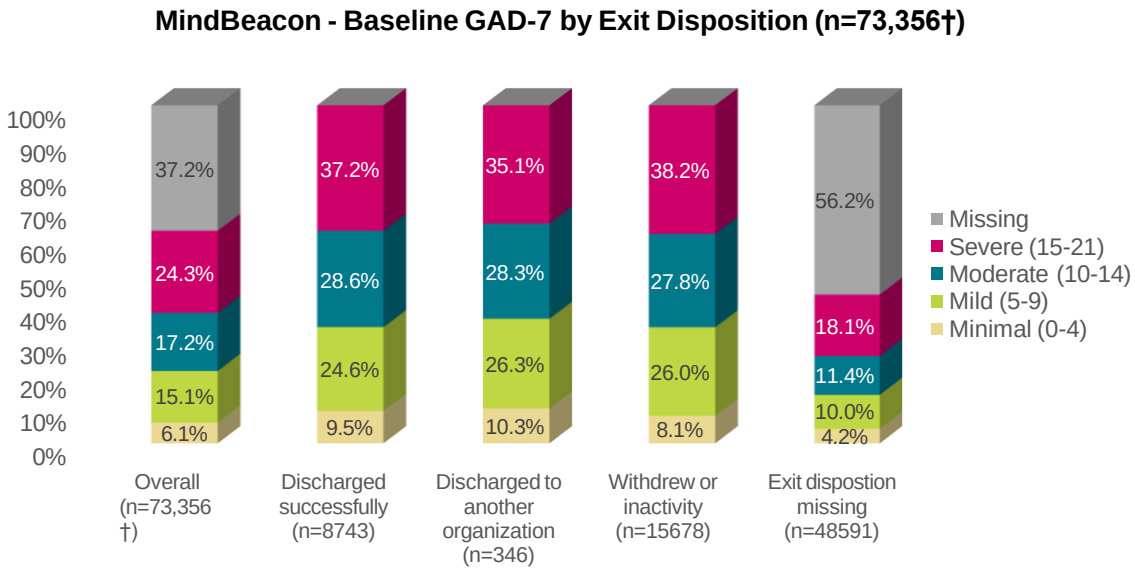
8.16 Appendix P: Baseline GAD-7/PHQ-9 by Exit Disposition

Figure 48 LifeWorks - Baseline GAD-7 by Exit Disposition



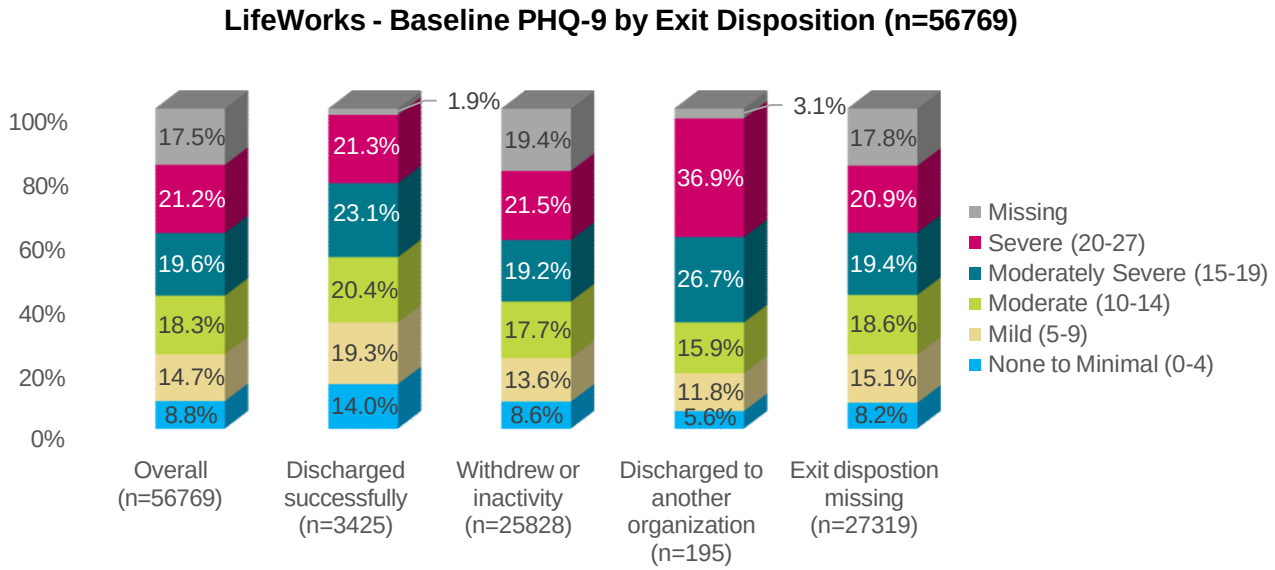
- Key insight from the graph above: For clients discharged successfully, 36.7% of clients had severe baseline anxiety. For clients discharged to another organization, 49.2% of clients had severe baseline GAD-7 score.

Figure 49 MindBeacon - Baseline GAD-7 by Exit Disposition



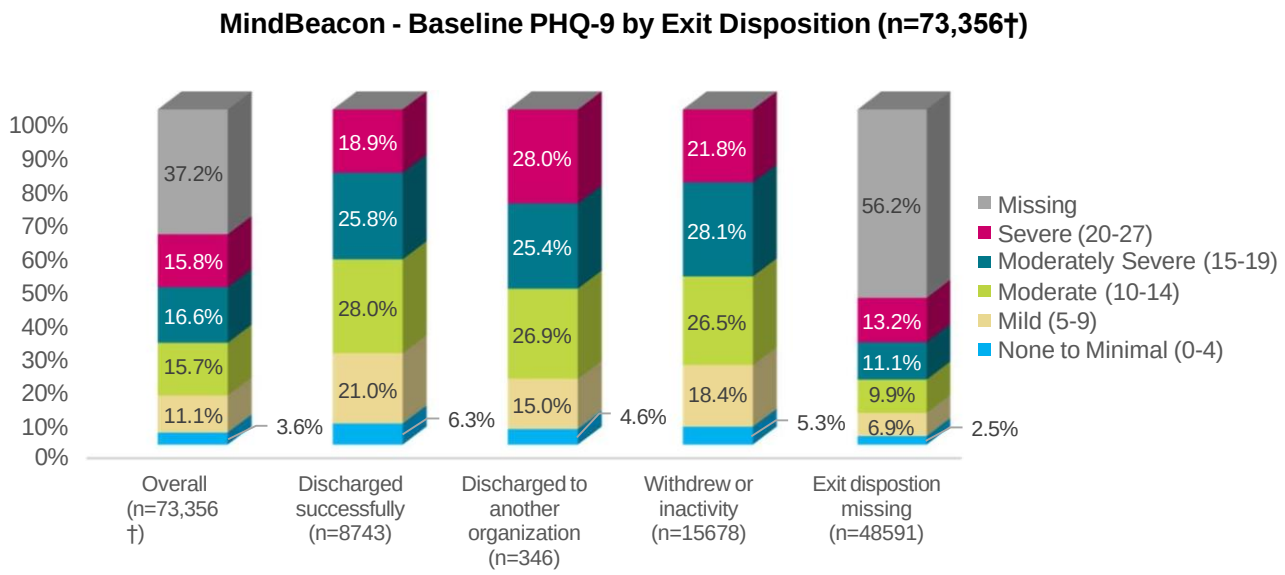
- Key insight from the graph above: For MindBeacon clients discharged successfully, 37.2% of clients had severe baseline anxiety. For clients who withdrew or were inactive in the program, 38.2% of clients had severe baseline anxiety.

Figure 50 LifeWorks - Baseline PHQ-9 by Exit Disposition



- Key insight from the graph above: For LifeWorks clients discharged successfully, 21.3% of clients had severe baseline depression. For clients who were discharged to another organization, 36.9 % of clients had severe baseline depression.

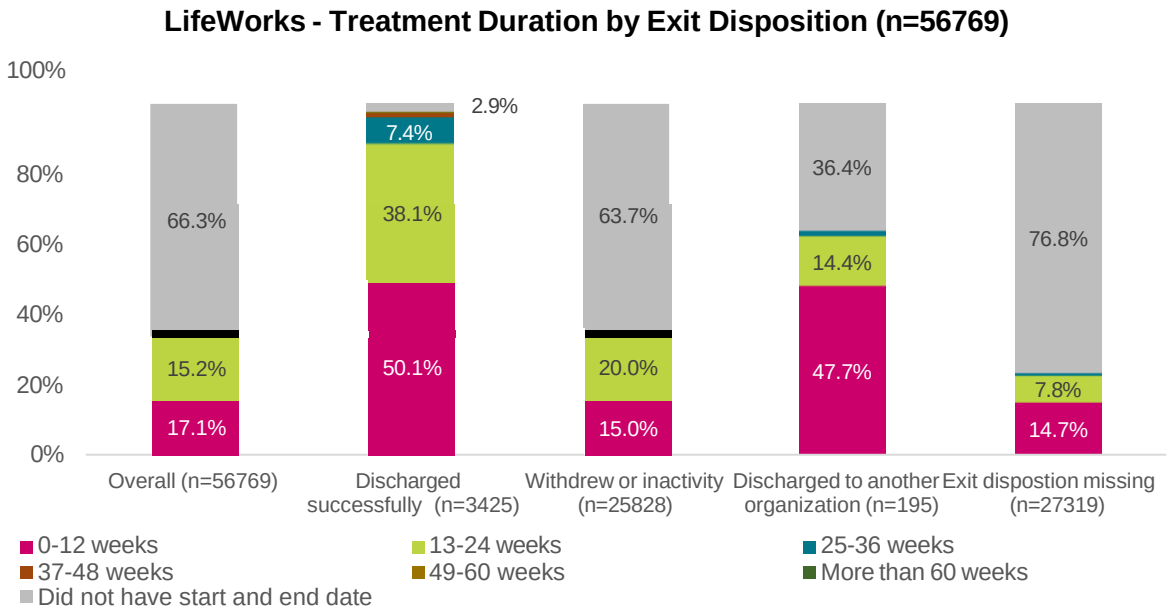
Figure 51 MindBeacon - Baseline PHQ-9 by Exit Disposition



- Key insight from the graph above: For MindBeacon clients discharged successfully, 18.9% of clients had severe baseline depression. For clients who were discharged to another organization, 28.0 % of clients had severe baseline depression.

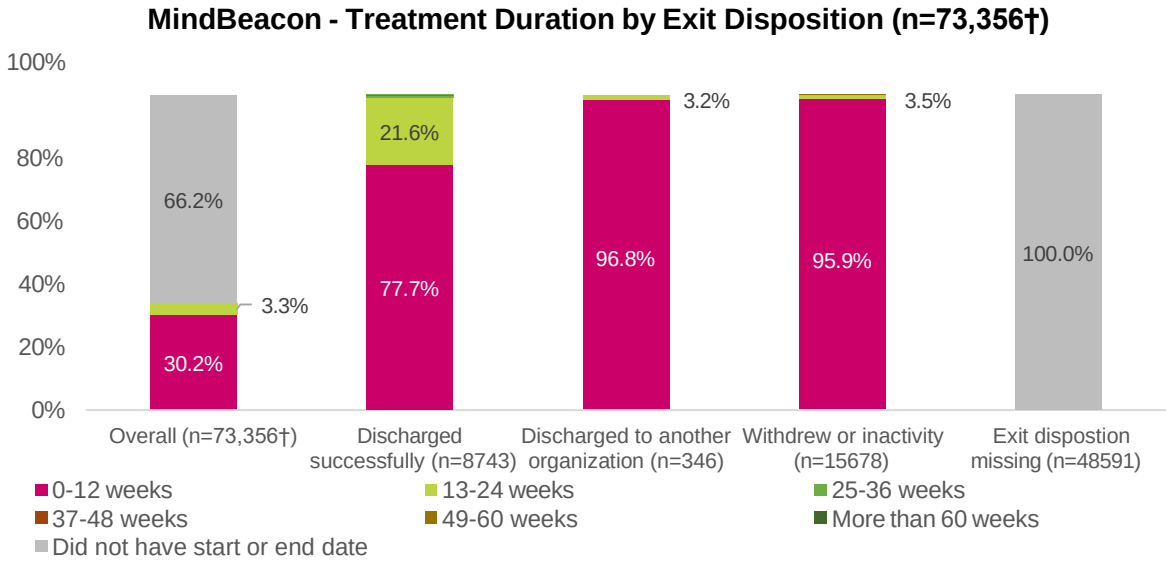
8.17 Appendix Q: Treatment Duration by Exit Disposition

Figure 52 LifeWorks - Treatment Duration by Exit Disposition



- Key insight from the graph above: For LifeWorks clients discharged successfully, there was a variation in treatment duration, yet most clients (88.2%) took 0-24 weeks to complete treatment.

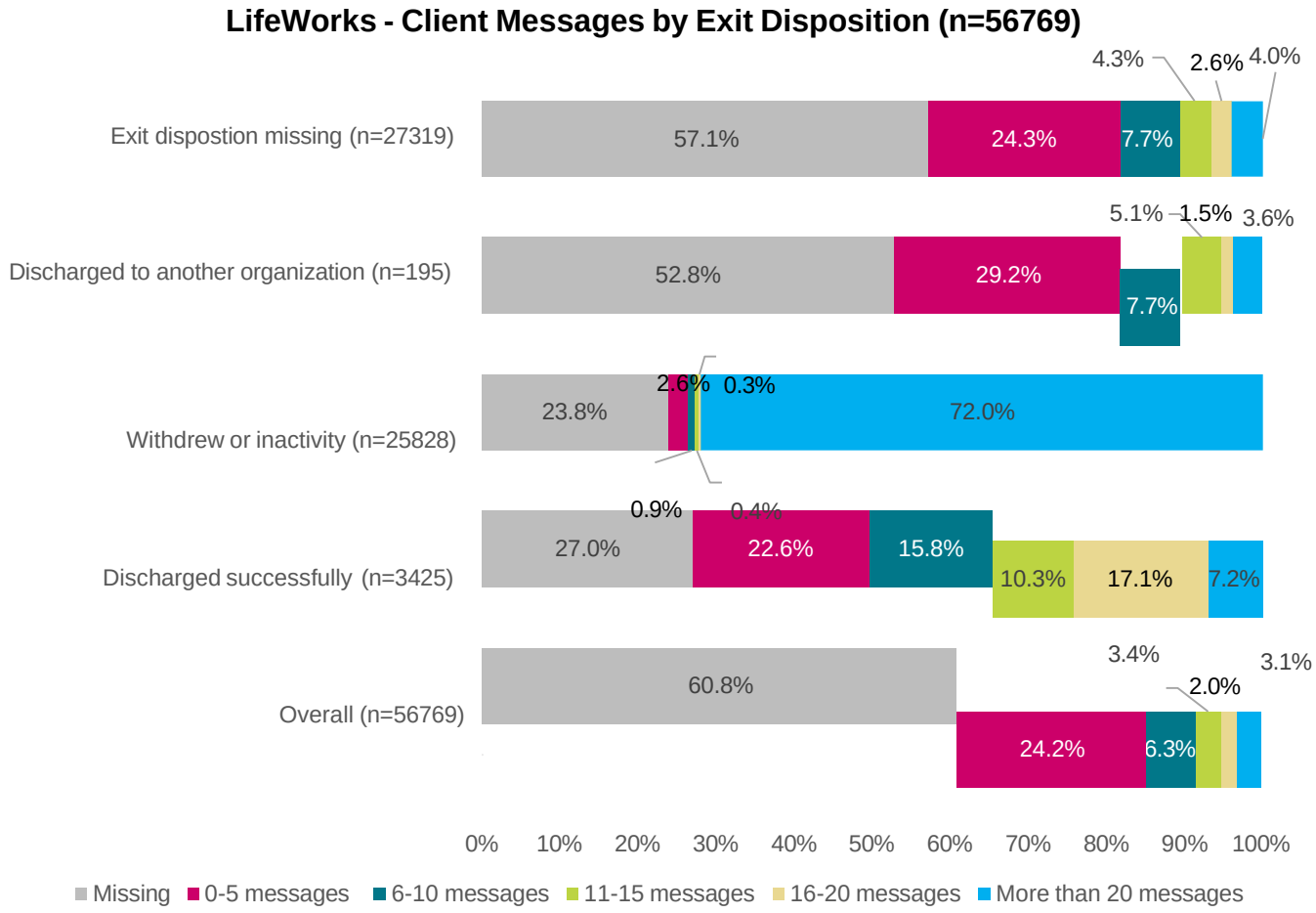
Figure 53 MindBeacon - Treatment Duration by Exit Disposition



- Key insight from the graph above: For MindBeacon clients discharged successfully, there was a variation in treatment duration, yet most clients (99.3%) took 0-24 weeks to complete treatment.

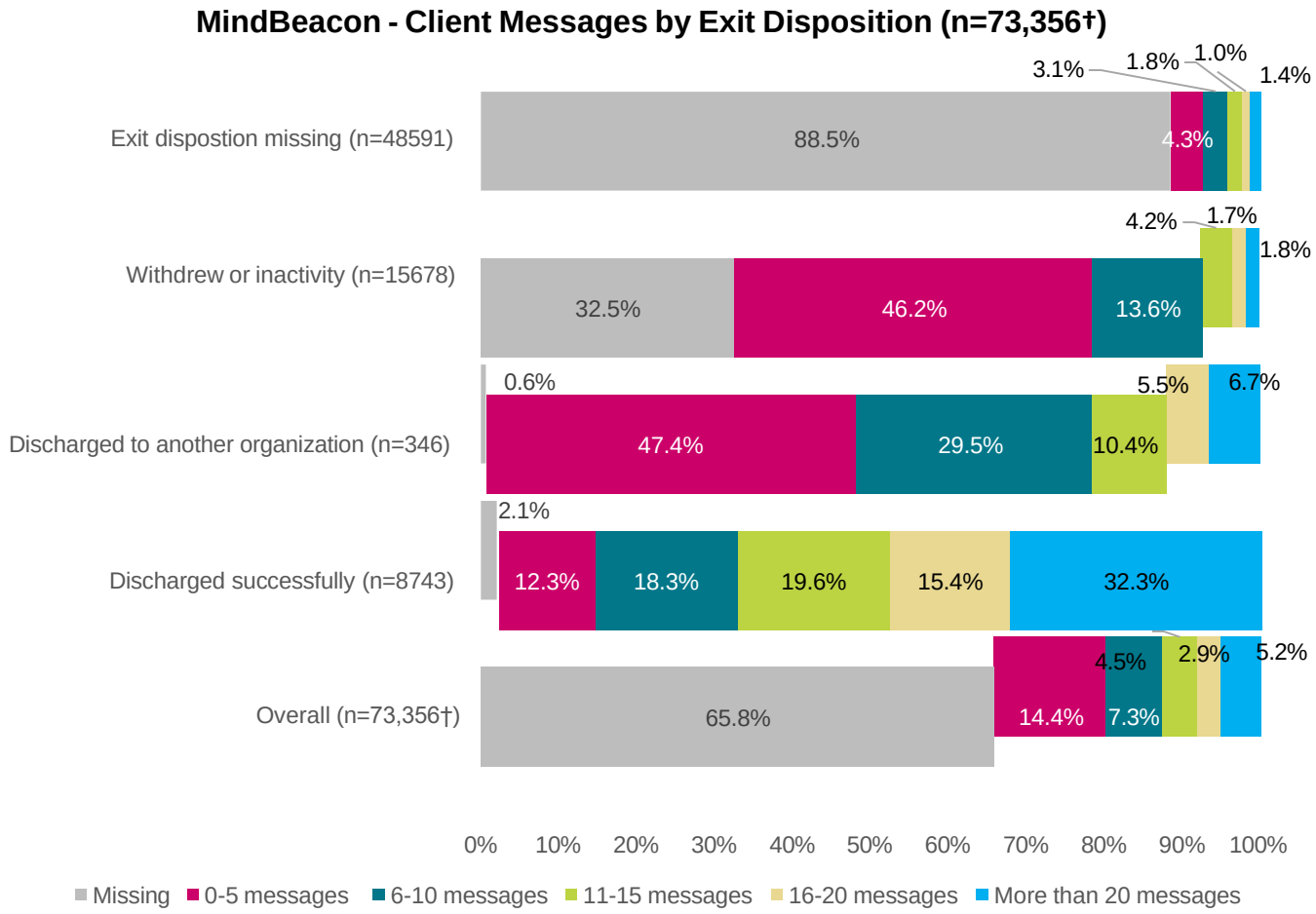
8.18 Appendix R: Client and Therapist Messages by Exit Disposition

Figure 54 LifeWorks - Client Messages by Exit Disposition



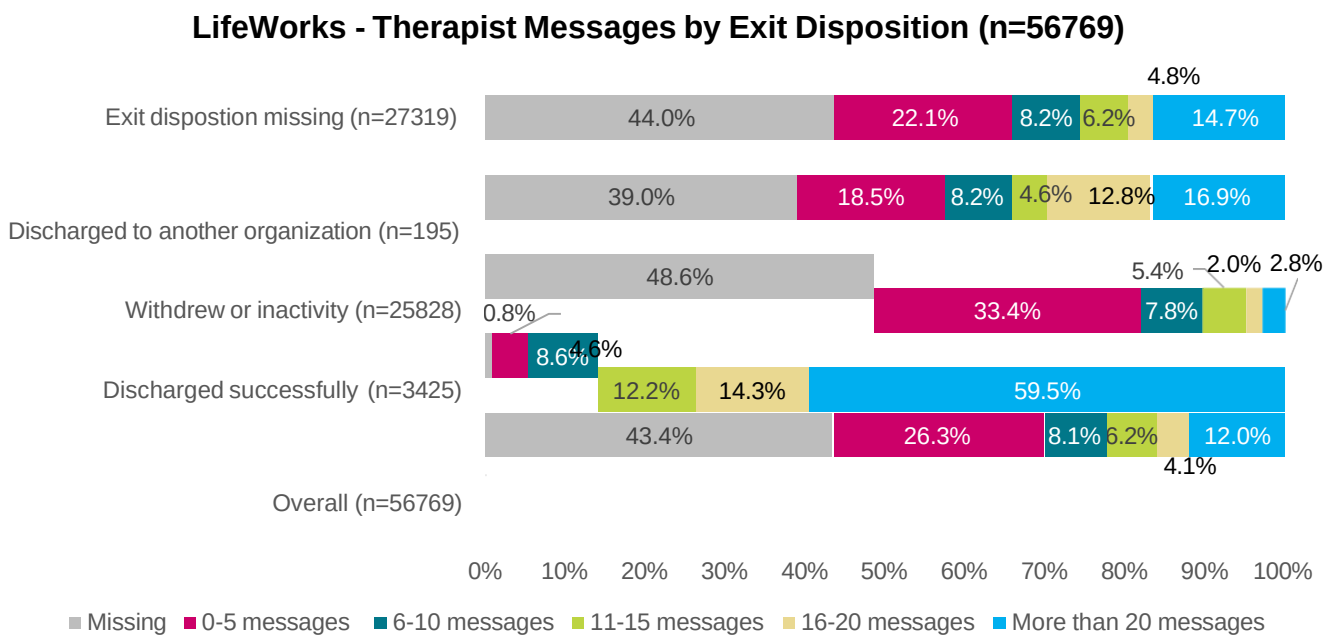
- Key insight from the graph above: For LifeWorks clients discharged successfully, there was a variation in messages sent to therapists with around 34.6% of clients sending more than 10 messages to their therapist through the course of the program.

Figure 55 MindBeacon - Client Messages by Exit Disposition



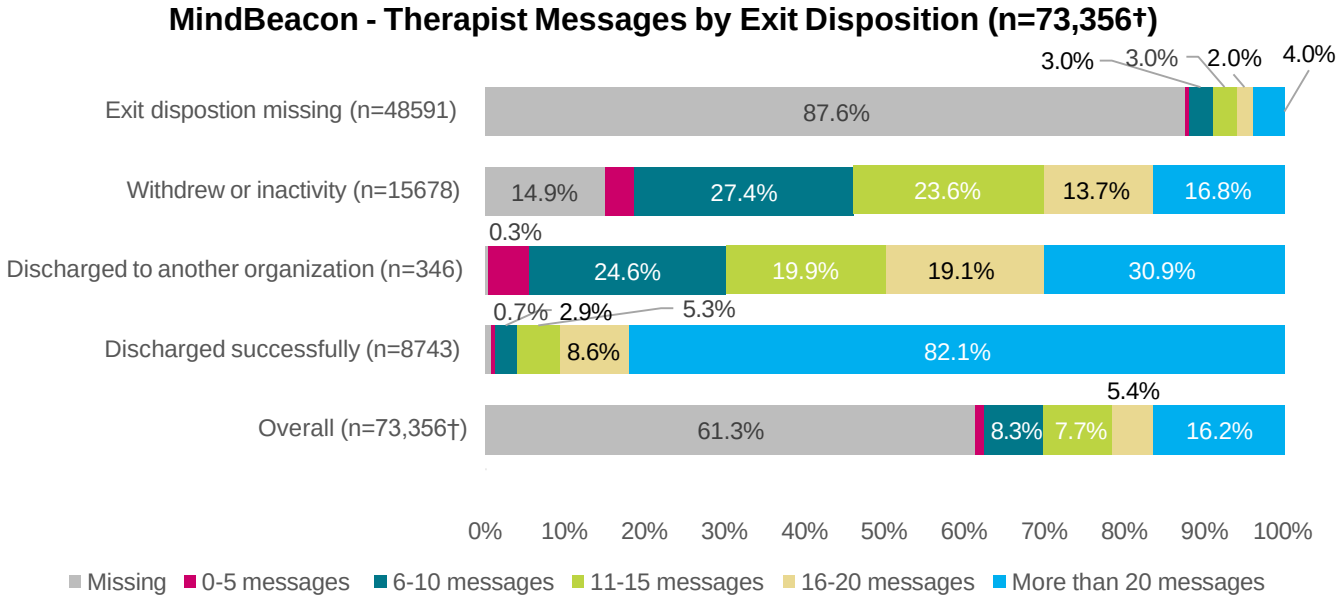
- Key insight from the graph above: For MindBeacon clients discharged successfully, there was a variation in messages sent to therapists with around 67.3% of clients sending more than 10 messages to their therapist through the course of the program.

Figure 56 LifeWorks - Therapist Messages by Exit Disposition



- Key insight from the graph above: For LifeWorks clients discharged successfully, 59.5 % of clients received more than 20 messages from their therapist. 33.4% of clients that withdrew or were inactive on the platform received 1-5 messages from their therapist.

Figure 57 MindBeacon - Therapist Messages by Exit Disposition

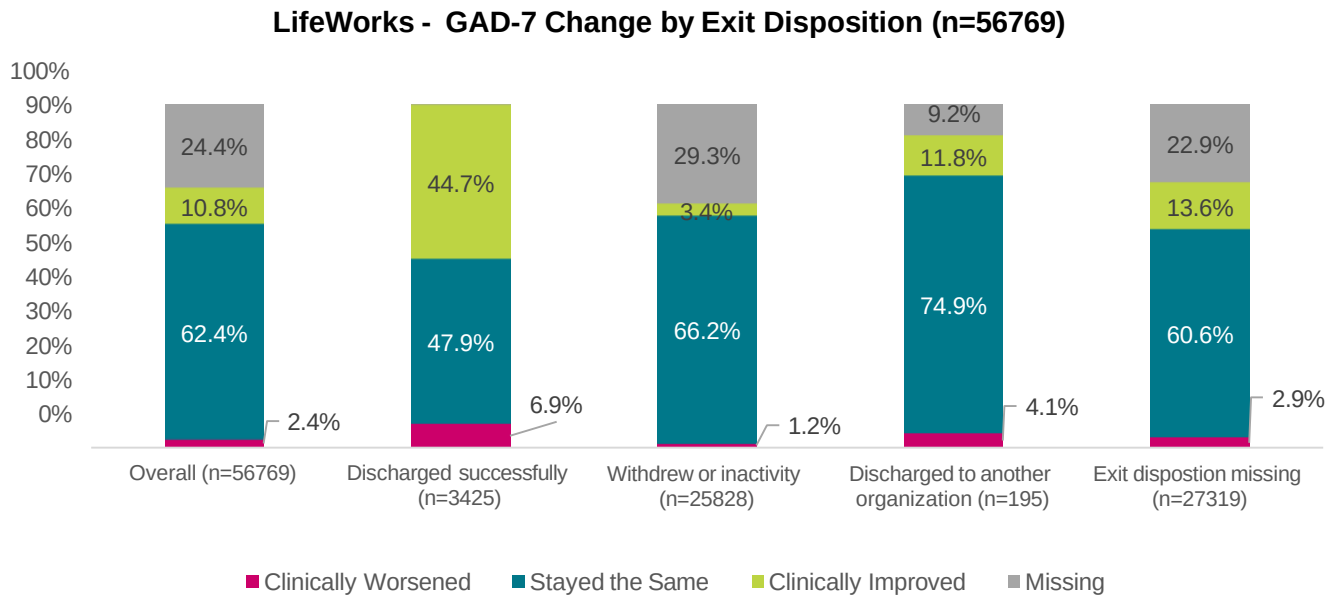


- Key insight from the graph above: For MindBeacon clients discharged successfully, around 82.1% of clients received more than 20 messages from their therapist. For clients that withdrew or were inactive on the MindBeacon platform received various quantities of messages from their therapist, with 27.4 % clients receiving 1-5 messages

from their therapist.

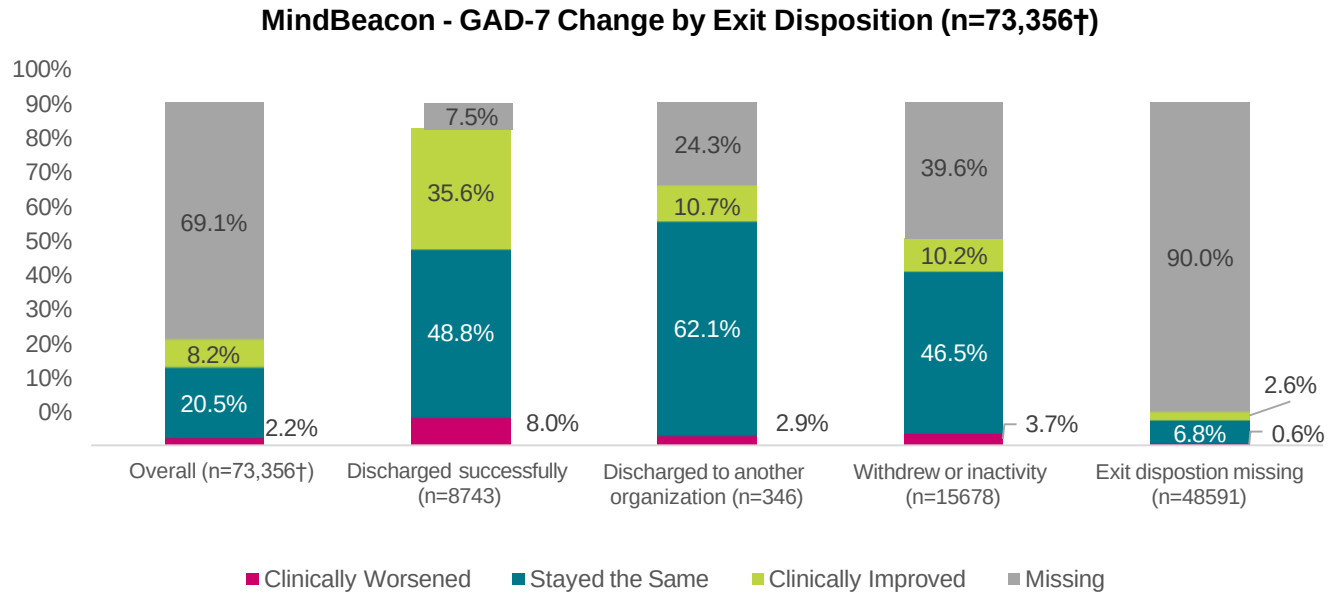
8.19 Appendix S: Change in Outcome Measures by Exit Disposition

Figure 58 LifeWorks - GAD-7 Change by Exit Disposition



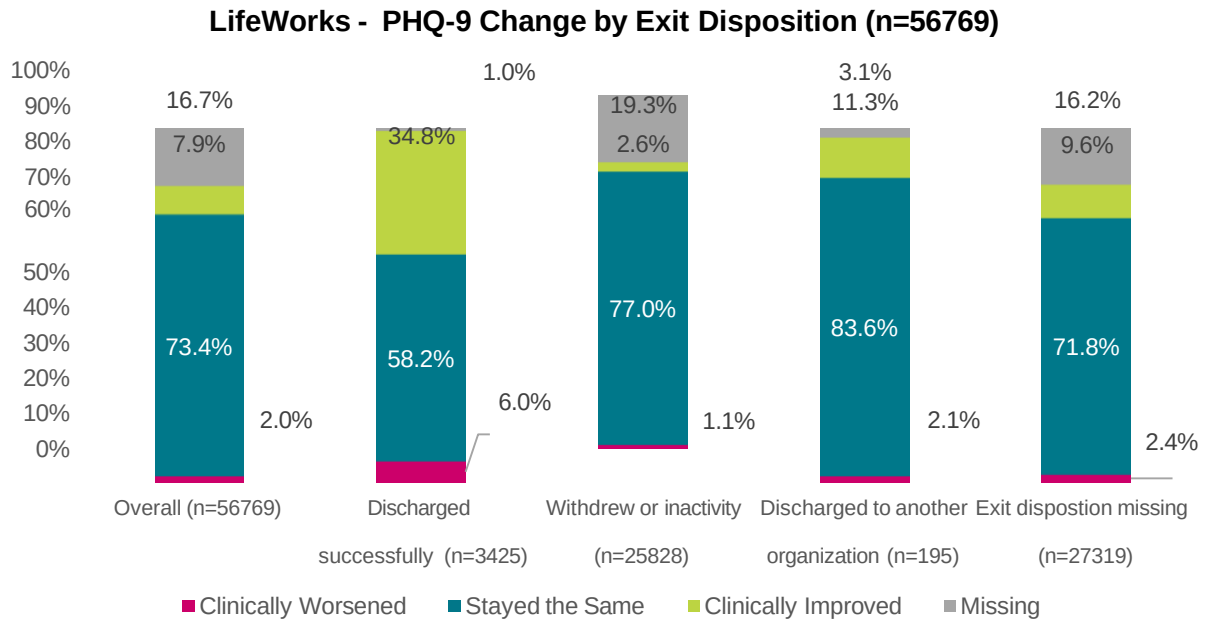
- Key insight from the graph above: For LifeWorks clients discharged successfully, around 44.7% of clients saw clinical improvement between first and last GAD-7 scores while in the program.

Figure 59 MindBeacon - GAD-7 Change by Exit Disposition



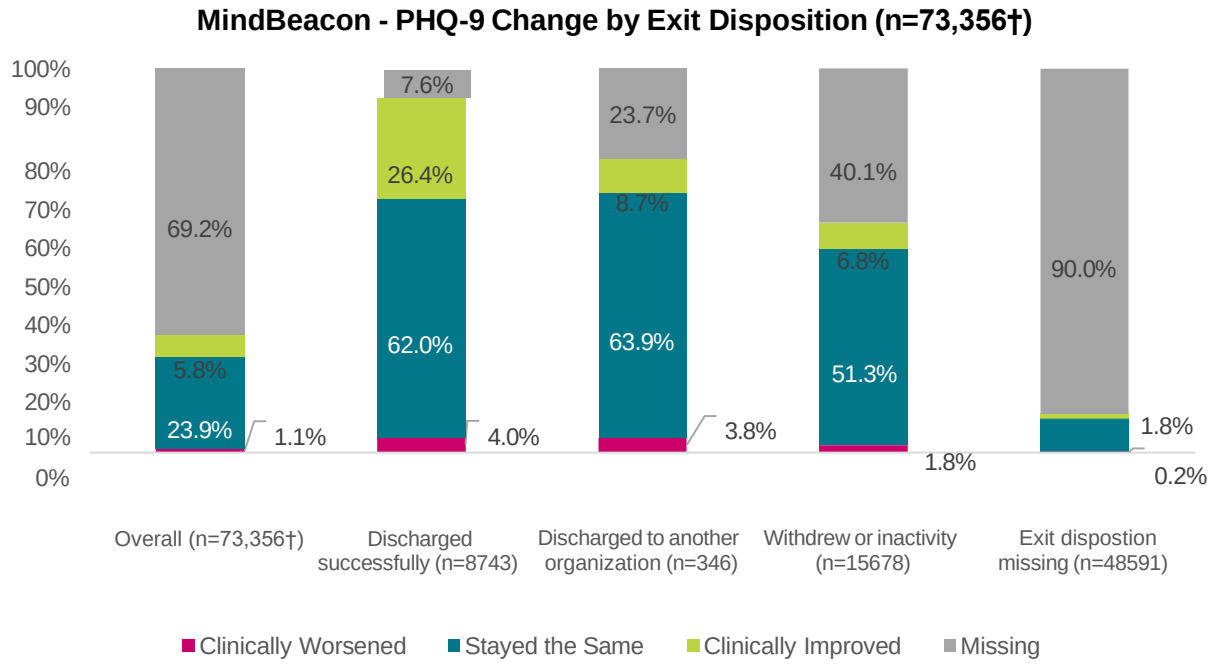
- Key insight from the graph above: For MindBeacon clients discharged successfully, around 35.6% of clients saw clinical improvement between first and last GAD-7 scores while in the program.

Figure 60 LifeWorks - PHQ-9 Change by Exit Disposition



- Key insight from the graph above: For LifeWorks clients discharged successfully, around 34.8% of clients saw clinical improvement between first and last PHQ-9 scores while in the program.

Figure 61 MindBeacon - PHQ-9 Change by Exit Disposition

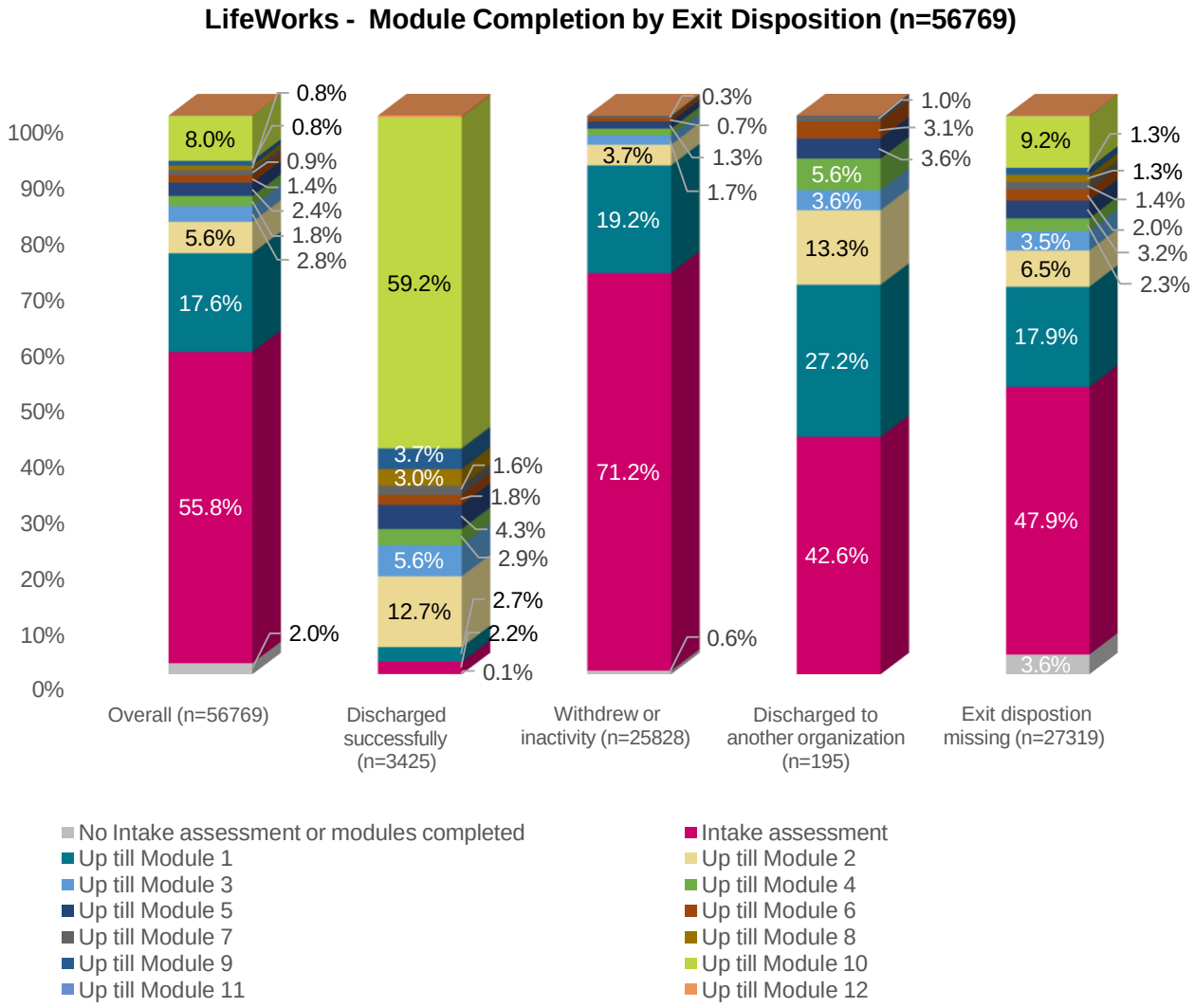


- Key insight from the graph above: For MindBeacon clients discharged successfully, around 26.4% of clients saw clinical improvement between first and last PHQ-9 scores

while in the program.

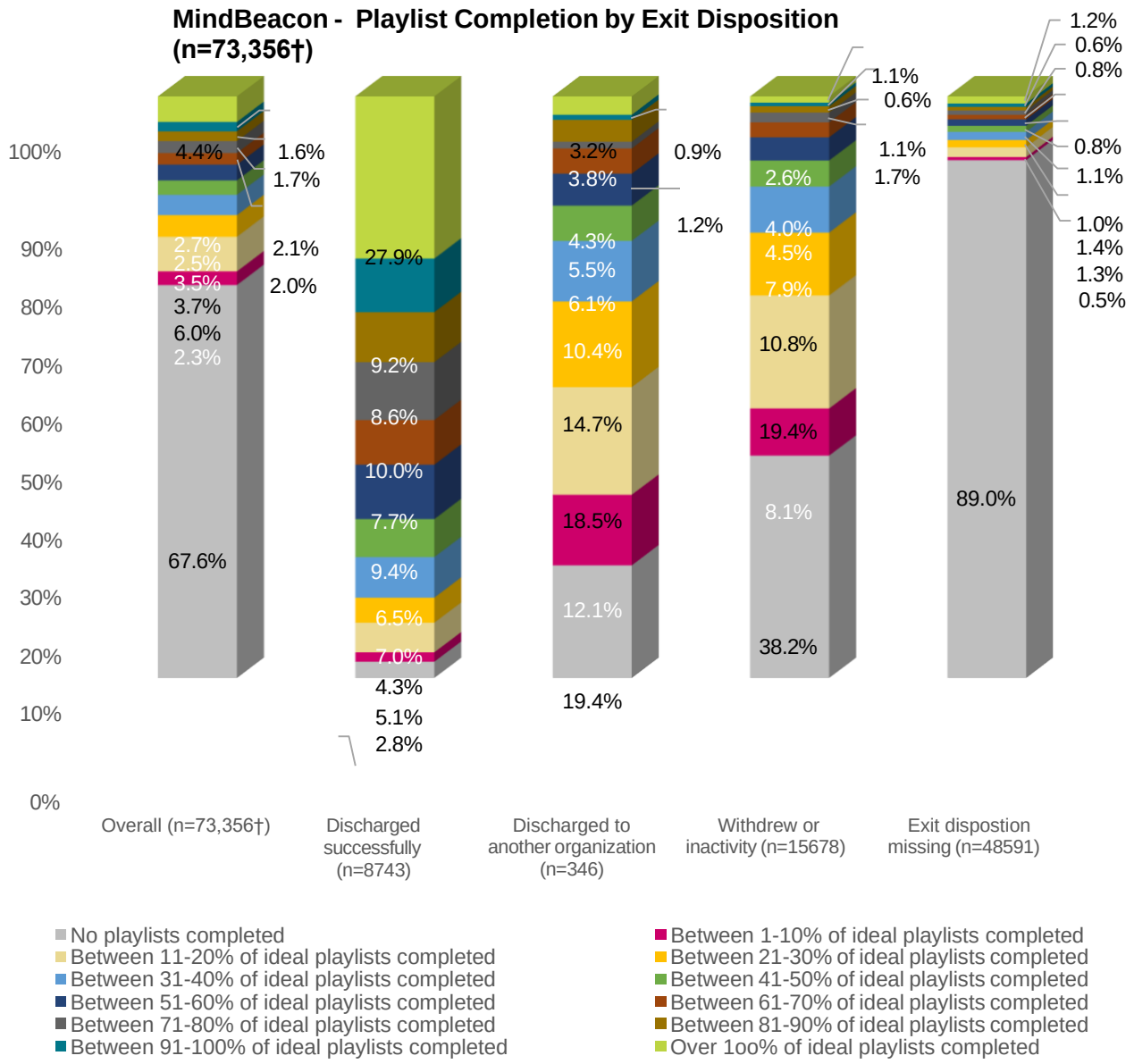
8.20 Appendix T: Module/Playlist Completion by Exit Disposition

Figure 62 LifeWorks - Module Completion by Exit Disposition



- Key insight from the graph above: For LifeWorks clients discharged successfully, around 59.2% of clients completed up till Module 10. For clients that withdrew or were inactive on the platform, 71.2% completed an intake assessment and 19.2% completed up till Module 1.

Figure 63 MindBeacon - Playlist Completion by Exit Disposition



- Key insight from the graph above: For MindBeacon clients discharged successfully, around 27.9% of clients completed more than 100% of the program. For clients that withdrew or were inactive on the platform, 8.1% completed between 1-10% of the program while 19.4% completed 11-20% of the program.

8.21 Appendix U: Value Propositions, Platform, Appropriateness & Feasibility, Challenges, Design & Implementation and Client/Therapist Rapport & Engagement

Connection with Therapist	Key Quotes[4]
• Knowing that a therapist was keeping track of their work and messages made clients feel accountable in a way that motivated their continued engagement. • Many clients described their therapists as encouraging, engaging, responsive, warm, and welcoming. • The presence of a therapist enabled clients to feel a *human* connection and not alone despite the program being online.	"I felt the material that I was working on was helpful, but the therapist was most helpful for what was there. It was nice to read something and bounce ideas and talk about things with someone. I don't think it would have been of any value to me personally without a therapist involved. … For me that was one of the biggest things, was just to have someone to lean on a little bit." P013, MindBeacon "I think the chat functionality, and the ability to add in worksheets or tools or readings at a whim … gives a lot of flexibility, and I think CBT requires more flexibility than is given. … we offer reflections, and we ask questions, and sometimes go a little deeper than just what the material presents …" HCP020, MindBeacon "… I think I also don't want to just feel so clinically cold about it either, … that I just do my thing, and hopefully something will come of it. It's nice for me to know that there's somebody checking in … you feel like somebody cares. I kind of like the messaging, I think that without it, it's a little sterile". P007, MindBeacon "I will get occasional emails, 'Your therapist has checked in' … it's almost like a cue that, 'Are you on track with your lessons?'. Because I think if you leave people to their own devices, sometimes they'll just fall off … the only accountability is to yourself" - P007, MindBeacon

[4] Please note, key quotes do not represent an exhaustive list of the quotes that supported this theme. We extracted quotes that were most illustrative of the theme to include in the report.

Accessibility	Key Quotes[5]
• Many client interviewees were willing to try iCBT because it was available free of charge and backed by the government; accessing the service was non-committal. • Clients and therapists both recognized the convenience that iCBT offered. It provided clients the ability to access the program any time from home or on the go through their phone; the support and information is readily available at their fingertips. • The absence of cost barriers enabled the program to reach individuals who experience financial challenges. Over one-third (38.9%) of LifeWorks survey respondents and over one-quarter (28.0%) of MindBeacon survey respondents indicated that they face occasional challenges in meeting financial needs at the end of the month. **The self-paced format supported clients' feasibility of accessing the program.** • Clients valued the ability to revisit the worksheets even following the completion of the program. • Clients were satisfied with the flexibility and convenience of the iCBT program.	"I liked that there was the ability to chime in and send a message any time of the day or night, when you have those thoughts, 'Oh I need to speak to my therapist', it's right there. You don't feel like you need to do it during a business hour type situation, so I really enjoyed the immediate accessibility of it. … when you get into that kind of anxiety or thought spiral, I liked having the ability as it's right there on my phone. … it's an immediate antidote. And it's something that you stop in your tracks, 'Let's handle this right now', as opposed to, 'Oh I need to try to get my therapist on the phone', or 'Where are those manuals or whatnot'. It's immediate and it's very helpful and just having the reassurance that it is immediately at hand is oftentimes, sometimes all you need to bring you back to a place of reasoning and of calm." P011, MindBeacon "I feel like one of the strengths is that it's there when people need it. I think we are not telling people, 'You have to be here on this particular day for your session'. We are saying, 'It's open. When you need it, it's right there' ". HCP019, MindBeacon "I … had a breakdown … and I ended up trying to take my life. … [The program] saved my life, it really did because I came out of the hospital with no support, no mental health support". P026, LifeWorks

[5] Please note, key quotes do not represent an exhaustive list of the quotes that supported this theme. We extracted quotes that were most illustrative of the theme to include in the report.

Nearly all survey respondents (LifeWorks 97.2%; 94.0%) agreed or completely agreed that the iCBT program was timely and worked within their schedules. • The online format enabled clients to receive mental health support in a timely manner and prevented the burdens associated with travelling to in-person therapy (e.g., anxiety related to finding parking, having to schedule time to attend an appointment). • One therapist interviewee noted that iCBT makes it easier for clients to access mental health support because it reduces the effort that would be required of clients to attend in-person therapy—effort that might compound the difficulty clients are already experiencing related to their mental health. • Unlike face-to-face therapy, clients could take a pause in the middle of a worksheet, walk away, reflect, and revisit the program when they felt ready.	

Acceptability

Most client survey respondents indicate agreement or strong agreement with the following statements:

- The iCBT program is appealing to me. (LifeWorks 97.2%; MindBeacon 88.0%)

- I like the iCBT program. (LifeWorks 91.7%; MindBeacon 84.0%)
- I welcome use of the iCBT program. (LifeWorks 91.7%; MindBeacon 90.0%)
- The iCBT program meets my approval. (LifeWorks 94.4%; MindBeacon 84.0%)

Most therapist survey respondents indicated agreement or strong agreement with the following statements:

- The iCBT program is appealing to me as a mental health care provider. (LifeWorks 98.4%; MindBeacon 94.3%)
- As a mental health care provider, I like the iCBT program. (LifeWorks 95.2%; MindBeacon 88.7%)
- As a mental health care provider, I welcome use of the iCBT program. (LifeWorks 100.0%; MindBeacon 94.3%)
- The iCBT program meets my approval as a mental health care provider. (LifeWorks 92.1%; MindBeacon 84.9%)

Functionality	**Key Quotes**[6]
• Clients who found the platform difficult to use noted challenges navigating the platform and returning to modules they had already started. • Nearly all client survey respondents from LifeWorks (97.2%) and MindBeacon (88.0%) felt that the weekly tailored resources and activities were easy to navigate and follow.	"It's a fairly stripped-back navigation tool, so it really has just four icons, my profile, my messages, toolkit, which is past things that you did, and then the home page where you can access the lessons. It's very easy to navigate, they've made it very straightforward. ... Yeah, stripped back, not too much … not too many options. For people who are feeling less than expert at computers, it's pretty straightforward in that way." P007, MindBeacon

[6] Please note, key quotes do not represent an exhaustive list of the quotes that supported this theme. We extracted quotes that were most illustrative of the theme to include in the report.

Appropriateness

- Most client survey respondents indicated agreement or complete agreement with the following statements:
    - The iCBT program seems fitting for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 86.1%; MindBeacon 84.0%)
    - The iCBT program seems suitable for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 86.1%; MindBeacon 84.0%)
    - The iCBT program seems applicable for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 94.4%; MindBeacon 94.0%)
    - The iCBT program seems like a good match for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 86.1%; MindBeacon 84.0%)
- Most therapist survey respondents indicated agreement or strong agreement with the following statements:
    - The iCBT program seems fitting for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 100.0%; MindBeacon 96.2%)
    - The iCBT program seems suitable for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 98.4%; MindBeacon 98.1%)
    - The iCBT program seems applicable for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 100.0%; MindBeacon 98.1%)
    - The iCBT program seems like a good match for managing mild to moderate depression and/or anxiety related disorders. (LifeWorks 96.8%; MindBeacon 96.2%)

Challenges	**Key Quotes**[7]
• Many clients felt that the iCBT curriculum was too prescriptive for their needs. They expressed that having tailored feedback and guidance specific to what they were	"I don't like the fact that when I have assigned a client a protocol, let's say, depression, and then we have worked together, and then, maybe, depression is not really the thing I should have assigned this person… Maybe, I should have done problem drinking, like behavioural issues that are related to drinking, right? But I cannot really change the heading of the treatment." HCP019, MindBeacon

[7] Please note, key quotes do not represent an exhaustive list of the quotes that supported this theme. We extracted quotes that were most illustrative of the theme to include in the report.

experiencing would improve the program. ○ One client expressed that the answers they submitted in one module were not reflected in the subsequent one making the program feel “superficial”. ○ For some clients, the lack of tailoring made them feel “boxed in” with respect to their responses and rendered some of the questions “repetitive”. ○ One client expressed feelings of guilt for skipping topics even though they were not entirely relevant to their mental health needs. Some clients expressed interest in having the ability to skip certain modules if they felt like the content did not apply to them or were not ready to engage with the topic. • Clients suggested that customization could include both narrowing down the content (i.e., excluding modules/playlists, questions, or worksheets that are not relevant to the client’s needs) or adding additional content. Some noted that clients’ specific needs could be explored during the intake assessment or through a short survey prior to each module/playlist.	

• At the outset of the program, MindBeacon therapists are to select a "protocol" to follow with their clients. This enables them to customize module content for their client by adding or deleting certain modules. However, therapists do not have the option to change the client's protocol after treatment has started.	

Design and Implementation

Modality	**Key Quotes[8]**
• Feeling a sense of anonymity enables clients to openly express themselves without feeling judged or overly vulnerable; there is no longer a need to worry about one's physical appearance and body language. In the same vein, one therapist noted that this client-anonymity prevented them from making assumptions and instead, helped to facilitate their curiosity and exploration. • The asynchronous chat function provided an opportunity for therapists to regularly check in with clients and share information/resources. • Some MindBeacon clients and therapists wanted the option of synchronous communication (e.g.,	"... the ability to be behind the screen, maybe it makes you not quite so vulnerable as one-on-one counselling either on the phone or face-to-face, for somebody who is new to it or may have been reluctant in the past, I think that was the initial appeal for me, was that there was that kind of buffer. I think for a lot of people that would probably be the case, it can be a very scary thing when you're dealing with anxiety and panic attacks, it's a very scary thing to get on the phone and say, 'I need a therapist can you help me?' Just doing that takes a lot of emotional effort for people that are struggling." P011, MindBeacon "Yes, it has its own benefits, too, because then we are not judging clients, right? You are not judging somebody by the way they look, or if they came in dressed very well and the other person is not well-dressed. For a therapist, I think, for us, too, it's not a bad thing to do online because we suspend judgement, right there. You don't know who you are working with. You are just working with a person who is in need." HCP019, MindBeacon "... it kind of forces you to actually do the work, like do the worksheets and type the

[8] Please note, key quotes do not represent an exhaustive list of the quotes that supported this theme. We extracted quotes that were most illustrative of the theme to include in the report.

phone and/or video calls). Similarly, some LifeWorks clients expressed an interest in more synchronous communication with their therapist. Some therapists wanted the option to communicate with clients via email. • Those who preferred to speak with their therapist over the phone noted that this form of communication better facilitated a human connection to their therapist. Some therapists similarly expressed the challenge of building a connection via text-based communication.	information out, whereas if you were in person, it never really resonated, the information. I never did the work in the same way. This way knowing that somebody is going to read your information, you kind of have to lay it out and put your thoughts into it". P013, MindBeacon "I think if it had been over the phone and speaking, I might have rambled. I might have not had the opportunity to organize my thoughts and it might not have been the best use of my time or [my therapist's], to be honest". P021, LifeWorks

Therapist and Client Rapport and Engagement

Therapist Survey Results

- While 90.5% of LifeWorks survey respondents agreed or completely agreed that it was easy to engage with clients, only 79.4% agreed or completely agreed that it was easy to build rapport with clients.
- Similarly, while 71.7% of MindBeacon survey respondents agreed or completely agreed that it was easy to engage with clients, only 62.3% agreed or completely agreed that it was easy to build rapport with clients.
- A small proportion of LifeWorks (1.6%) and MindBeacon (5.7%) survey (provider) respondents disagreed that it was easy to engage with clients through the program.
- Similarly, a small proportion of LifeWorks (3.2%) and MindBeacon (13.2%) survey (provider) respondents disagreed that it was easy to build rapport with clients through the program.

- Some survey respondents expressed neutrality towards their ability to engage with clients (LifeWorks: 7.9%; MindBeacon 22.6%) or build rapport with clients (LifeWorks: 17.5%; MindBeacon: 24.5%).

Client Survey Results

- Nearly all LifeWorks (97.2%) survey respondents agreed or completely agreed that it was easy to engage with their therapist. One individual completely disagreed.
- All LifeWorks survey respondents (100.0%) agreed or completely agreed that it was easy to build rapport with their therapist
- Most MindBeacon survey respondents (92.0%) agreed or completely agreed that it was easy to engage with their therapist. However, 8.0% of survey respondents disagreed or completely disagreed.
- Similarly, most MindBeacon survey respondents (88.0%) agreed or completely agreed that it was easy to build rapport with their therapist. However, 10% of survey respondents disagreed or completely disagreed. Furthermore, one survey respondents expressed neutrality.