FAMILY SERVICE ONTARIO
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Family Service Ontario
Demonstration Project Report

September 2018-March 2020

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Executive Summary

The Family Service Ontario *Demo Project* captured positive client outcomes and built capacity among participating agencies. Through the Demo Project (September 2018-March 2020), 28 participating agencies implemented standardized measurement of psychotherapy service outcomes, and created a unique dataset showing collective client outcomes. Specifically, agencies used the Greenspace platform to track psychotherapy progress and outcomes for adults seeking help for anxiety and depression.

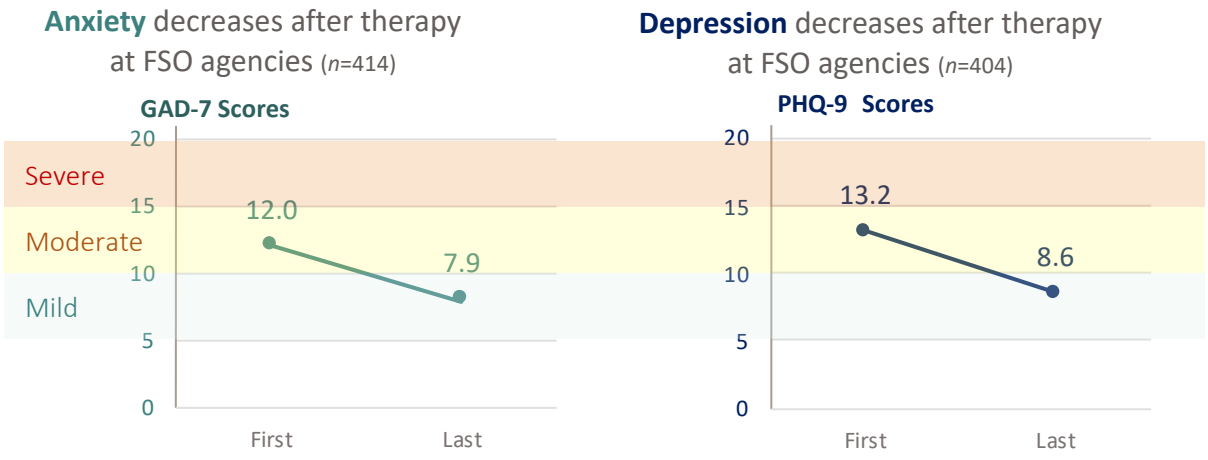
Rather than delivering a standardized intervention, the Demo Project looked at outcomes of "therapy as usual" for Family Service Ontario agencies. Clinicians are both registered social workers and psychotherapists and use a collection of evidence-based approaches with clients (top 3 are solution-focused therapy, cognitive behavioural therapy, narrative therapy).

Standardized measures were used to assess anxiety (GAD-7), depression (PHQ-9), therapeutic relationship (BR-WAI) and functioning/disability (WHODAS), as well as client demographics. Demo Project criteria, materials, and the Greenspace platform were consistent across agencies, while implementation and data collection methods had flexibility across agencies.

The Demo Project was designed to complement Ontario's *Increasing Access to Structured Psychotherapy* (IASP) project by matching with project measures and timelines where possible. Both the IASP and this Demo Project report use definitions and published comparison values from the decade-long *Improving Access to Psychological Therapies* (IAPT) initiative in England.

This report includes Demo Project methods and client outcomes for 18 months of group implementation (Sept 2018-March 2020). The report presents several analysis perspectives on measuring client change in anxiety and depression after therapy at Family Service Ontario agencies. These include comparing pre-post averages, and calculating reliable improvement, caseness, and recovery, as well as exploring outcomes by demographic factors.

Demo Project data show that, on average, client outcomes improved across all measures after psychotherapy. There was a significant and substantial decrease in average anxiety and depression scores from the first to last measurement. Therapeutic relationships between clinicians and clients started strong and improved significantly over the course of treatment. Disability and functioning improved over the course of treatment.



To allow comparison with the IASP and IAPT projects, Phase One analyses examined client outcome scores (from first to last measurement) in terms of reliable change, reliable improvement, caseness, recovery, and reliable recovery:

- **Reliable change** on a measure is a change in scores greater than a cut-off of what would be expected by measurement error (greater than 4 for GAD-7 and 6 for PHQ-9).
- **Reliable improvement** across both measures was defined as either GAD-7 or PHQ-9 reliably improving, and other same or no reliable deterioration.
- Client "**caseness**" was examined for each measure at the start and end of treatment. Caseness refers to having scores above a threshold for diagnostic criteria for the measure (8+ for GAD-7 and 10+ for PHQ-9).
- Client "**recovery**" was defined as starting at caseness on either measure, with both measures non-caseness after treatment. "**Reliable recovery**" was defined as starting at caseness on either measure, reliable improvement, and both measures are non-caseness after treatment.

During the Demo Project, 61% of clients showed reliable improvement in anxiety and depression (249 of the 410 who completed treatment). Of clients who completed treatment, 42% showed reliable recovery from anxiety and depression. To compare, the reliable improvement rate in the IAPT project after one year was 64% (Gyani et al., 2013), and 43% of clients had achieved reliable recovery by the end of therapy.

Clients with lower income and who had concurrent issues reported more severe anxiety and depression. Other demographic factors (age, gender, primary care connections, racial and ethnic background, newcomer, Francophone) did not show a significant effect on anxiety and depression. There was no evidence that treatment effects (decrease in anxiety and depression) differed significantly across demographic factors.

Overall, these results from the Demo Project provide insight into positive client impacts after psychotherapy at Family Service Ontario agencies. These findings capture implementation of standardized outcomes measures and criteria and provide a baseline for future benchmarking and quality improvement work.

There are limitations to the current results. Differences in project methodologies (screening and recruitment of participants, uptake of measurement) mean that Demo Project results may not be fully comparable to the IAPT findings. The limited sample size, as well as missing and incomplete data, means the current results may not reflect all clients enrolled in the Demo Project, or the broader population of Family Service Ontario clients.

Next steps for Family Service Ontario agencies are continued outcome measurement and quality improvement. Demo project lessons and promising practices can be used to help inform service delivery changes in response to COVID-19.

Introduction

Demo Project captured client outcomes and built capacity across agencies

From September 2018 – March 2020, 28 participating agencies in the Family Service Ontario Demo Project implemented standardized measurement of psychotherapy service outcomes, and created a unique dataset showing collective client outcomes. Specifically, agencies used the Greenspace platform to track psychotherapy progress and outcomes for adults seeking help for anxiety and depression.

The Demo Project has built cross-agency capacity for session-based assessment and using shared measurement criteria, through a technology platform that enables client engagement and quality improvement. At the same time, the Demo Project dataset provides insight into client outcomes after psychotherapy at Family Service Ontario agencies across Ontario.

The Demo Project was designed to complement the provincial *Increasing Access to Structured Psychotherapy* (IASP) project by matching with project measures and timelines where possible. This alignment provides a structure for potentially comparing cross project data, as well as building capacity around the models of psychotherapy service delivery in development by the Ministry of Health and IASP project.

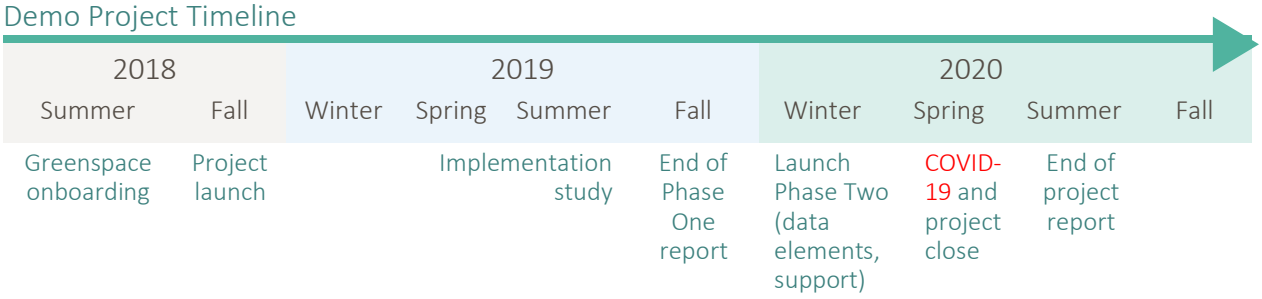
Demo Project timing: Launch, implementation, reporting, and close

The first phase of Demo Project implementation (September 2018-October 2019) covered Greenspace onboarding and the project launch. Promising practices and lessons learned from phase one were documented in an *Implementation Study* report (Bergen, 2019). Phase Two of the Demo Project launched in January 2020, enhancing the shared dataset by tracking problem descriptors and diversion from medical services.

Original plans were to run through fall 2020. However, project activities and data collection were interrupted by the COVID-19 pandemic in March 2020, during which the initial phase of Ontario's IASP project wrapped up.

To keep aligned with provincial timing and to be able to share client outcomes after "therapy as usual", the Demo Project steering committee pivoted to close the project in summer 2020, with the report covering pre-COVID work to date.

Demo Project Timeline



Demo Project Methods

Recruitment screened for clients seeking help for anxiety and depression

Project recruitment took place through screening by agency intake staff or the clinician. Clients who fit the project inclusion and exclusion criteria were invited into the Demo Project as they were beginning therapy.

Inclusion Criteria	Exclusion Criteria
- Client is aged 16 or older. - Anxiety/depression as a primary goal of therapy (top 3 goal). - Client will attend at least three individual counselling sessions[1].	- Client is currently supported by a mental health professional offering psychotherapy services (separate from their FSO work). - Moderate to severe impairment of cognitive functioning (e.g. dementia, autism spectrum, or learning disabilities) that impacts the client's ability to participate in therapy. - Substance use impacts ability to actively participate.

Demo Project looked at "therapy as usual" at Family Service Ontario agencies

The therapeutic interventions received by individual clients are not standardized across agencies or clinicians. Instead, the Demo Project measures "business as usual" psychotherapy outcomes across Family Service Ontario agencies.

Family Service Ontario agencies and clinicians offer evidence-based psychotherapies, including cognitive-behavioural therapy (CBT), and CBT-informed therapies (solution- focused, mindfulness-focused, emotion-focused therapy), as well as narrative, and interpersonal therapies.

Clinical skills survey to show scope of clinician experience and capacity

A 2020 membership survey was conducted to better understand the scope of clinical experience and capacity across Family Service Ontario agencies in the Demo Project. The results section provides an overview of types of therapy, languages of service, and supervision frequency across agencies, as well as clinical experience and capacity.

Standardized measures for anxiety, depression, therapeutic relationship, and functioning

Clients in the Family Service Ontario demonstration project were adults who had anxiety or depression as a presenting issue. The Demo Project is using the Greenspace platform to collect outcome data about client anxiety, depression, therapeutic alliance, and disability/functioning.

[1] Demo Project Report analyses are based on first/last measurements, due to inconsistently entered session count data.

GAD-7 and PHQ-9 for anxiety and depression: weekly or at every session

The Demo Project focuses on clients seeking help for anxiety and depression. The key outcomes measures in this project are well-validated and brief measures: the GAD-7 for anxiety (Spitzer et al., 2006) and the PHQ-9 for depression (Kroenke, Spitzer & Williams, 2001). Clients are asked to complete the GAD-7 and PHQ-9 weekly or at every session. The GAD-7 and PHQ-9 are the core outcome measures of the IASP project, and are used to calculate reliable improvement, recovery, etc.

WHODAS for disability and functioning: monthly or start/middle/end of therapy

The World Health Organization Disability Assessment Schedule 2.0 (WHODAS) was included as a measure of disability and functioning (World Health Organization, 2010; Konecky, Meyer, Marx, Kimbrel & Morissette, 2014). Clients are asked to complete the WHODAS every 4 weeks or at the start, middle, and end of therapy. The WHODAS is also used in the IASP project.

BR-WAI for therapeutic working relationship: every two weeks or start/middle/end of therapy

The Brief Revised Working Alliance Inventory (BR-WAI) is a measure of the strength of working relationship between the client and therapist (Horvath & Greenberg, 1989; Mallinckrodt & Tekie, 2015). Clients are asked to complete the BR-WAI every 2 weeks or at the start, middle, and end of therapy. This measure is not included in the IASP project but was included in the Demo Project because therapeutic alliance is an important predictor of client outcomes (e.g., Horvath, Del Re, Flückiger, & Symonds, 2011).

Standardized demographic questions: part of client profile at intake

Demographic questions were collected at intake as part of the Greenspace client profile. These questions were selected to align with the IASP project while showing the diversity of clients served by Family Service Ontario agencies. Demographic questions cover age, gender, concurrent issues, primary health care connections, family income and size, income source, Francophone status, racial or ethnic background, and newcomer status.

The results section examines key client outcomes (anxiety and depression) across demographic factors.

Problem descriptor and presenting issues

Starting in January 2020, clinicians began to collect data on the main problem that led clients to therapy, and the additional presenting issues.

The problem descriptor was selected to best fit the main client problem related to depression and anxiety addressed during treatment. Categories were designed to align with the IASP project (same categories)[2].

[2] **Problem descriptor.** At midpoint or closing. Clinicians picked **one** main problem descriptor that best fit the main client problem related to depression and anxiety addressed during treatment:

> Depression and low mood; Generalized anxiety and worry; Health anxiety; Unexpected panic attacks and related fears; Social anxiety, shyness, and performance fears; Specific fears; Obsessive-compulsive concerns; Posttraumatic stress; Other anxiety and stress related problems (e.g., work stress, test anxiety).

The **presenting issue(s)** question[3] allowed clinicians to pick as many items as needed to show the main presenting issues addressed during counselling. This question was designed to show the breadth of client concerns addressed during counselling at Family Service Ontario agencies.

These data elements were only collected for a few months before COVID. Due to the small sample of available responses, the results section examines trends in frequencies rather than comparing outcomes by presenting issue or problem descriptor.

Demo Project materials and data collection were semi-standardized

Demo Project criteria, materials, and Greenspace data collection platform were standardized

The Demo Project required that participating agencies collect certain common data elements on a shared schedule, using the Greenspace platform for data collection. Project consent materials and screening criteria were standardized across agencies. Common resources (project guidelines, training opportunities) were available for participating agencies.

Implementation and data collection methods had flexibility across agencies

Agencies differed in how Demo Project clients and data collection fit into their overall client management process. Agencies managed their own Demo Project implementation. Project intake was integrated into each agency's intake. Project screening and intake could happen in person or by phone, with an intake worker or clinician, depending on the agency.

There were also differences across agencies, clinicians, and clients in how clients complete the ongoing outcome measures. Some clients created Greenspace dashboards and complete assessments via email in their own time. Other options were to have assessments completed via tablet in office, paper in office, or read verbally in session.

[3] **Presenting issue(s).** At midpoint or closing, clinicians picked as many items as needed to show the main presenting issues addressed during counselling:

ADDICTION: [AD] Addictions;

TRAUMA: [ABO] Abuse – Offender; [ABV] Abuse – Victim; [ABW] Abuse – Witness; [SEXA/AD] Sexual Assault adult; [SEXA/CH] Sexual Assault child; [TR] Trauma;

RELATIONSHIP (FAMILY): [ADJ] Adjustment/ Transition; [CYB]Child&/or Youth Behaviours; [PRN] Parenting; [RELC] Relationships – Couple/Family; [GRF] Grief and loss; [SEPD] Separation and divorce;

PERSONAL (PSYCHOLOGICAL): [EMR] Emotional Regulation; [GEN/SEX] Gender/Sexuality issues; [HLTH] Health; [ANG/STR] Anger/Stress Mgmt.; [SELF] Self-esteem; [HARM] Self-harm; [SUIC] Suicidal ideation

WORK AND ENVIRONMENT: [CON] Conflict in the workplace; [HOU] Housing insecurity; [FIN] Finance/ employment issue

Demo Project Data Analysis and Results

Family Service Ontario clinician capacity and experience

In June 2020, a survey of the Family Service Ontario membership was conducted to gather details about clinical capacity and experience.

These findings provide an overview of "therapy as usual" at Family Service Ontario agencies[4].

Clinicians are registered social workers and psychotherapists

Overall, most Family Service Ontario clinicians are registered with the Ontario College of Social Workers and Social Service Workers (OCSWSSW) and/or with the College of Registered Psychotherapists of Ontario (CRPO)[5].

Demo Project clinicians were registered social workers and/or registered to practice psychotherapy in Ontario (n=67)

Clinicians use a variety of evidence-based therapeutic modalities

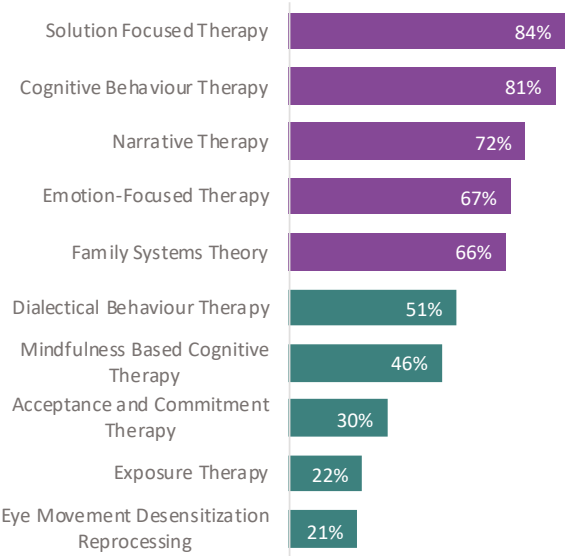
Family Service Ontario clinicians use a variety of evidence-based therapeutic approaches to meet client needs.

Demo Project clinicians reported using an average of eight (M = 8, SD = 4) primary treatment modalities.

Most clinicians are using cognitive behaviour therapy (CBT), solution focused therapy, narrative therapy, emotion-focused therapy, and family systems therapy. Clinicians also have capacity for diverse other approaches to meet client needs and preferences.

About half of clinicians (55%) have formal CBT training, from institutions Including

Clinicians' primary treatment modalities used are CBT, solution focused therapy, and narrative therapy (n=67)



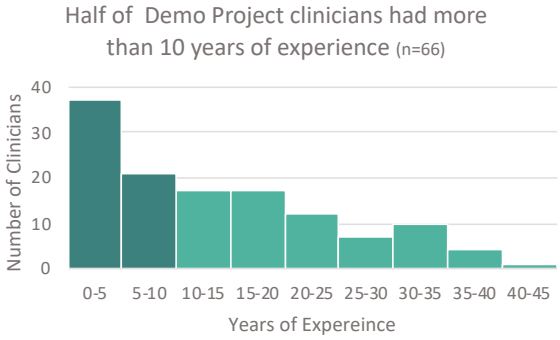
[4] Results presented here include only respondents who participated in the Demo Project. Overall, clinicians from 20 of the 28 agencies that participated in the FSO Demo project responded to the clinician survey. Findings are similar to the overall Family Service Ontario membership. Results from this survey sample may not represent all agencies.

[5] Some clinicians are also registered with the Ontario Association of Social Workers (OASW), the Canadian Association for Marriage and Family Therapy (CAMFT), and the College of Nurses of Ontario.

the IASP CBT Training Program, Beck Institute, McMaster Continuing Education, Wilfrid Laurier University Professional Development, and Yorkville University.

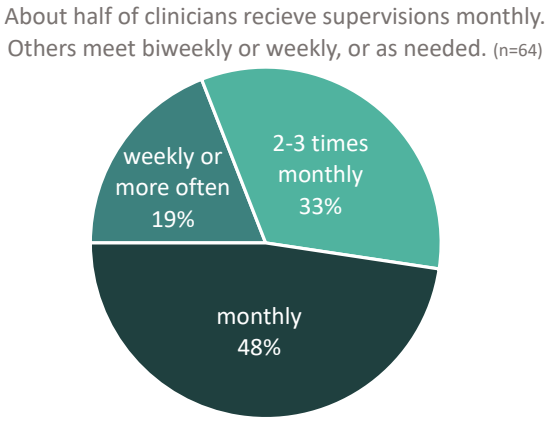
Clinicians are both experienced and early career practitioners

Clinicians experience ranges from less than a year of practice to 40+ years. On average, Demo Project clinicians who responded to the survey had an average of 12 years of experience (SD = 10). Half of clinician respondents had more than 10 years of experience.



Clinical supervision happens regularly

Supervision frequency varies across agencies, and ranges from weekly to monthly. Some clinicians are part of peer supervision groups as well as working with a specific supervisor.



Capacity for multi-language therapy

Clinicians in the Demo Project provide service in diverse languages, reflecting the needs of local communities[6]. However, the Demo Project was mainly conducted in English, as assessment tools are not yet validated in other languages.

Clients recruited to the Demo Project

This report covers two sets of client outcomes: from **all clients** in the Greenspace dataset (both completed and in progress), and those who have **completed** therapy or discontinued measurement (archived clients). Clients were included in the dataset if they had the "FSO" tag applied (to show they met inclusion/exclusion criteria), and if they had at least two survey scores available (start and end of measurement)[7].

Overall, about 1400 Family Service Ontario clients met the screening criteria in Phase One and were invited to the Demo Project by almost 200 therapists[8]. Of these, about 6 in 10 followed through with project participation and went on to complete a baseline measure.

[6] Including French, as well as: Albanian, Arabic, Cantonese, Farsi, German, Hebrew, Hindi, Malayalam and Tamil with interpreter support, Mandarin, Portuguese, Punjabi, Spanish, Ukrainian, Urdu.

[7] Some clients stopped Greenspace measurement before the end of counselling.

[8] Based on Greenspace profile numbers, 1385 clients were invited by 196 therapists across 28 agencies (as of March 11, 2020).

Data from all clients (Some in progress)

Of all clients who completed a baseline measure, 74% went on to complete another measure for anxiety; 73% completed another depression measure. This sample of clients averaged 6 sessions over 17-18 weeks (including some completed and some in progress)[9].

Measure	First measure (baseline)	Last measure available
GAD-7 (anxiety)	866	645
PHQ-9 (depression)	875	641

Data from completed clients (Archived)

Of completed clients who completed a baseline measure, 74% went on to complete another measure for anxiety and 73% completed another depression measure. Clients who completed counselling (archived/closed in Greenspace) averaged 5 sessions over 13 weeks[5].

Measure	First measure (baseline)	Last measure available
GAD-7 (anxiety)	559	414
PHQ-9 (depression)	556	404

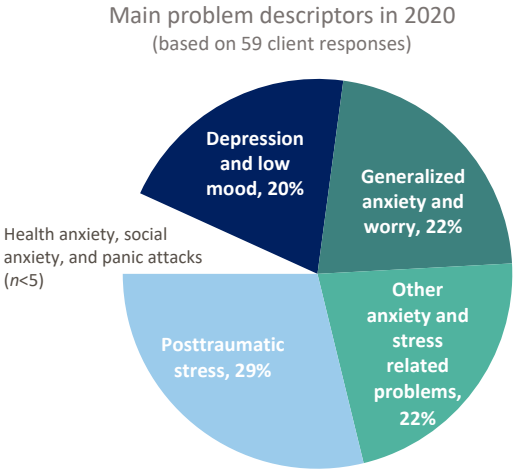
Problem descriptor and presenting issues

Demo Project clients had anxiety or depression as one of their top three presenting issues.

Starting in January 2020, additional data elements were collected to better understand why clients came to therapy. A main problem descriptor and one more presenting issue(s) for clients were collected at the midpoint or closing of therapy.

Due to COVID-19 disruptions, only a relatively small sample was collected in the 2020 project period.

This limited sample means that the current findings about client problem descriptor and presenting issues are not expected to fully represent all clients in the Demo Project. Also due to the limited data, it was not possible to compare anxiety and depression outcomes across problem descriptors or presenting issues.

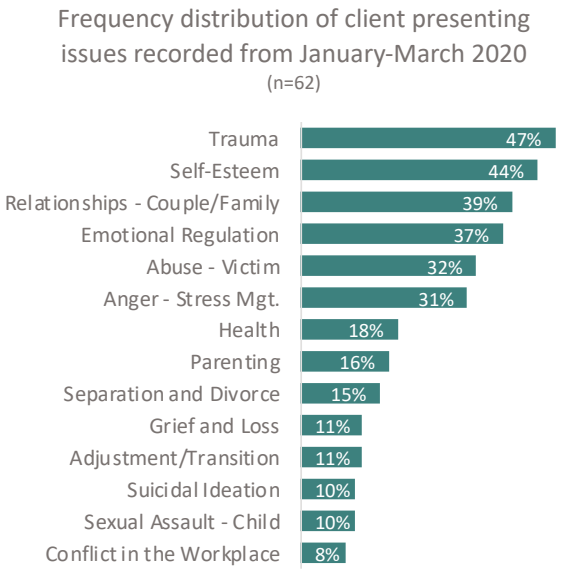


[9] Session counts are not complete and may not be reliable.

Frequency analysis of clients with available data for one main problem descriptor shows about two in ten reported depression and low mood, about four in ten (44%) reported anxiety problems, and three in ten (29%) reported posttraumatic stress[10].

Clinicians identified between 1 and 11 presenting issues for each client (M = 4, SD = 2). The most common presenting issues were trauma, self-esteem, relationships, emotional regulation, and being a victim of abuse[11].

These data suggest that considering only one main problem descriptor may not reflect the diverse reasons that clients seek help through therapy and counselling.



Multiple analysis perspectives on "client change"

In this report, client change is based on the difference in scores from the start to the end of therapy (or the measurement period). What counts as "change" is considered several ways

- **Average change** from start to end (across clients; significance testing and effect size)
- Proportion of individual clients with "**reliable change**", or change from start to end greater than would be expected from sampling error, for:
  - anxiety and depression scores individually
  - anxiety and depression scores together (**reliable improvement**)
- Proportion of individual clients with scores above the cut-off for "**caseness**" (meeting scale-based diagnostic criteria for the presenting issue) for anxiety and depression scales
  - For anxiety and depression scores individually
- **Recovery**: starting at caseness on either measure, and both measures are non-caseness after treatment
- **Recovery rate**: # clients that moved to recovery/[(# clients that finished a course of treatment) – (# clients that finished treatment and started treatment below caseness)]
- **Reliable recovery**: starting at caseness on either measure, reliable improvement, and both measures are non-caseness after treatment
- **Reliable recovery rate:** # clients that moved to reliable recovery/[(# clients that finished a course of treatment) – (# clients that finished treatment and started treatment below caseness)]

[10] Problem descriptors not selected by clients in this sample (i.e., obsessive compulsive concerns, specific fears) are not included in visual reports.

[11] Presenting issues with low frequencies in this sample (n<5) are not included in visual reports (i.e., addictions, self-harm, housing insecurity, gender/sexuality, finance/employment issues)

This report uses analysis definitions and comparison values to match England's *Improving Access to Psychological Therapies* (IAPT) project (National Collaborating Centre for Mental Health (NCCMH), 2018), including values from the first years of their project implementation (Gyani, Shafran, Layard, & Clark, 2013; Community and Mental Health Team, 2014). The IAPT project in England is the model for the Ontario-based IASP initiative.

On average, clients show improvement across all measures after psychotherapy

On average, client anxiety and depression significantly and substantially decreased after therapy at Family Service Ontario agencies. Decreases in anxiety and depression were larger for clients who had completed therapy.

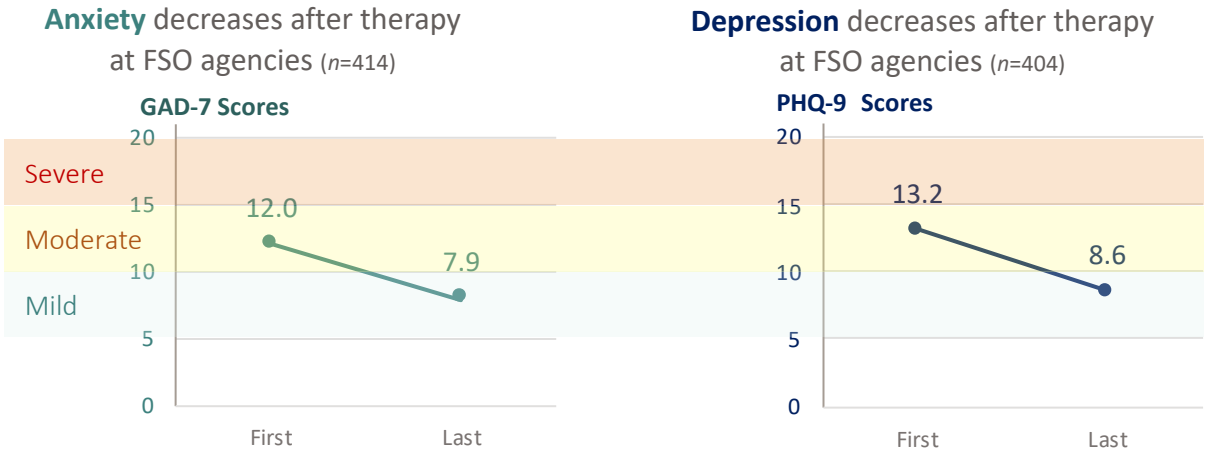
Clients reported a strong working relationship with clinicians that improved significantly over the course of therapy. Disability significantly decreased (functioning improved) over the course of therapy. See descriptive statistics and pre-post significance tests below.

All clients (some in progress)			Completed clients (archived)		
Measure	First Measure *M (SD)*	Last Measure *M (SD)*	Measure	First Measure *M (SD)*	Last Measure *M (SD)*
GAD-7 (*n*=524)	11.8 (5.2)	8.3 (5.7)	GAD-7 (n=286)	12.0 (5.1)	7.9 (5.6)
PHQ-9 (*n*=517)	13.4 (6.4)	9.3 (6.6)	PHQ-9 (n=273)	13.2 (6.3)	8.6 (6.4)
BR-WAI (*n*=318)	67.9 (8.8)	70.7 (9.2)	BR-WAI (*n*=153)	67.6 (8.8)	70.9 (9.0)
WHODAS (*n*=303)	17.4 (10.1)	15.3 (11.0)	WHODAS (*n*=157)	17.4 (10.4)	14.7 (11.2)

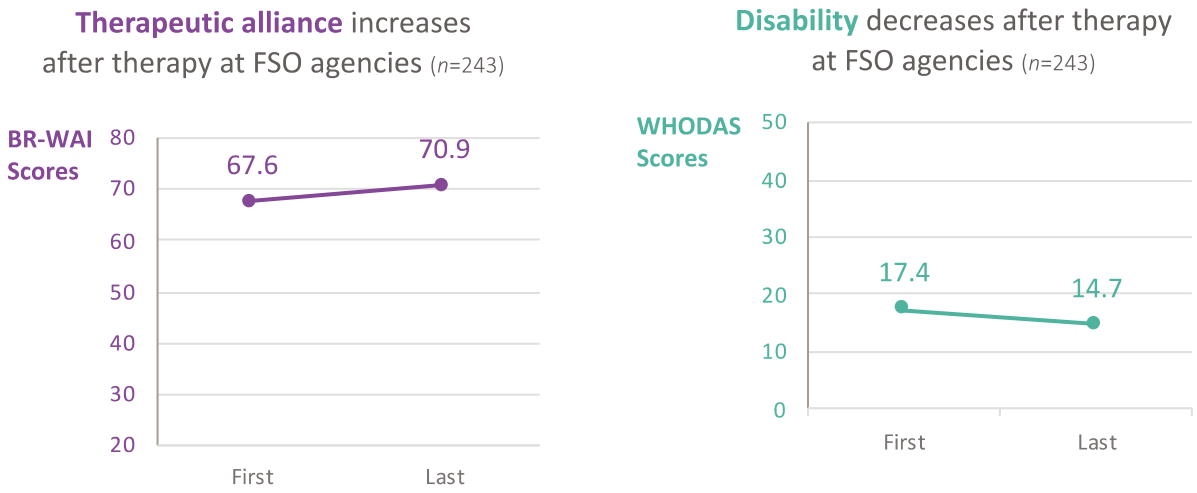
Pre-post significance tests:	Pre-post significance tests:
Anxiety - GAD-7 *t*(644)=16.7, *p*<.001, *d*=.7, 95% CI 3.1-3.9	GAD-7 *t*(413)=15.6, *p*<.001, *d*=.8, 95% CI 3.6-4.6
Depression - PHQ-9 *t*(640)=17.2, *p*<.001, *d*=.7, 95% CI 3.6-4.5	PHQ-9 *t*(403)=15.8, *p*<.001, *d*=.8, 95% CI 4.0-5.2
Therapeutic alliance - BR-WAI *t*(402)=6.6, *p*<.001, *d*=.3, 95% CI 2.0-3.6	BR-WAI *t*(242)=5.8, *p*<.001, *d*=.4, 95% CI 2.2-4.4
Disability - WHODAS *t*(379)=5.4, *p*<.001, *d*=.3, 95% CI 1.3-2.8	WHODAS *t*(242)=5.3 *p*<.001, *d*=.3, 95% CI 1.6-3.6

Visualizing outcome changes for clients who completed therapy

The decrease in clients' anxiety and depression after psychotherapy at Family Service Ontario agencies is shown in the charts below. Using the GAD-7 and PHQ-9 cut-off points of 5, 10, and 15 for mild, moderate, and severe anxiety and depression, respectively (Spitzer et al., 2006; Kroenke et al., 2001), average client scores started at "moderate" and decreased to "mild" severity.



Therapeutic alliance (relationship between the client and clinician) was strong to start and significantly improved over the course of counselling. On average, disability decreased significantly after therapy.



Reliable change calculations

Reliable change for each outcome measure was defined as pre-post change on the PHQ-9 exceeding 5.2 points, and pre-post change on GAD-7 exceeding 3.5 points. A change greater than this threshold is larger than would be expected by measurement error, and therefore "reliable". These reliable change criteria are based on the values used by the IAPT project in their year one

analysis (Gyani et al., 2013). In this report, reliable change for both measures individually are presented, followed by reliable improvement across both measures at once.

Reliable Improvement After Psychotherapy (For Each Measure)

Overall, across all clients with two or more assessments, 47% showed reliable improvement in anxiety, and 35% showed reliable improvement in depression. At completion or closing, 54% of completed clients showed reliable improvement in anxiety and 39% showed reliable improvement in depression.

		All clients (some in progress)		Completed clients (archived)	
Reliable Pre-Post Change		f	%	f	%
GAD-7	**Reliable improvement (better)**	**305**	**47%**	**222**	**54%**
	Unreliable change	290	45%	165	40%
	Reliable deterioration (worse)	50	8%	27	7%
	Total	645		286	
PHQ-9	**Reliable improvement (better)**	**226**	**35%**	**159**	**39%**
	Unreliable change	286	60%	231	57%
	Reliable deterioration (worse)	29	5%	14	3%
	Total	641		404	

Reliable Improvement After Psychotherapy (Both Measures)

Reliable improvement across both measures was defined as either GAD-7 or PHQ-9 reliably improving (as above) and other same or no reliable deterioration. Only clients with first/last scores on both measures were included in the calculation.

Overall, across all clients with two or more assessments, 55% showed reliable improvement across both measures. For clients who had completed counselling, 61% showed reliable improvement in anxiety or depression.

	All clients (some in progress)		Completed clients (archived)	
Reliable improvement (GAD-7 and PHQ-9)	f	%	f	%
Reliably improved	**335**	**55%**	**249**	**61%**
Not improved	278	45%	161	39%
Total	613		410	

The reliable improvement rate in the IAPT project after one year was 64% (Gyani et al., 2013). These end of Phase One results suggest psychotherapy for clients with anxiety and depression at Family Service Ontario agencies is yielding similar client improvements to the first year of the IAPT project in England. However, the relatively small sample size in the Demo Project, and self-selection bias among participating clients, means these results may not reflect the broader population of Family Service Ontario client outcomes.

Caseness and recovery rate calculations

Caseness is indicated by a score of 10 or more on the PHQ-9, and a score of 8 or more on the GAD-7. These caseness criteria are based on the values used by the Ontario IASP project and the IAPT project in England (Gyani et al., 2013). In this report, caseness for both measures individually are presented, followed by recovery and recovery rates across both measures.

Recover refers to clients who move from "caseness" at the start of therapy to "not caseness" (score below criteria) at the end of therapy. In this analysis, recovery includes change on both key measures. Specifically, recovery was calculated as the number of clients starting at caseness for either the GAD-7 or PHQ-9, and both GAD-7 and PHQ-9 below caseness at completion. Reliable recovery was calculated as the number of clients who started at caseness on either measure, showed reliable improvement on either measure, and below caseness on both measures by the end of therapy.

Recovery and reliable recovery rate were calculated as the number of clients that moved to (reliable) recovery, divided by the total number of clients started above caseness on at least one measure and completed treatment.

Caseness (For Each Measure)

At the beginning of therapy, 76% of all clients met caseness criteria for anxiety, and 69% met criteria for depression. At therapy end (for all clients), 47% met caseness criteria for anxiety, and 42% met criteria for depression. There were 93 clients who did not start therapy meeting caseness criteria for either measure, and who had end scores on both measures.

All clients (some in progress)						
Caseness		Start (First Measure)			End (Last Measure)	
GAD-7 8+	Caseness	657	76%		305	47%
	Not Caseness	209	24%		340	53%
	Total	866			645	
PHQ-9 10+	Caseness	606	69%		267	42%
	Not Caseness	269	31%		374	58%
	Total	875			641	
Both	Not Caseness	93				
	Caseness	487				
	Total	580				

For completed clients, 77% of clients met caseness criteria for anxiety at therapy start, and 68% met criteria for depression. At therapy end (for completed clients), 45% met caseness criteria for anxiety, and 36% met criteria for depression. There were 56 clients who did not meet caseness for either measure at start, and who had end scores for both measures.

Completed clients (archived)						
Caseness		Start (First Measure)			End (Last Measure)	
GAD-7 8+	Caseness	428	77%		187	45%
	Not Caseness	131	23%		227	55%
	Total	559			414	
PHQ-9 10+	Caseness	379	68%		144	36%
	Not Caseness	177	32%		260	64%
	Total	556			404	
Both	Not Caseness	56				
	Caseness	317				
	Total	373				

Recovery Rate After Psychotherapy (Across Both Measures)

For clients who had completed or discontinued counselling, 44% had achieved recovery by the final assessment. Recovery is defined as starting at caseness on one or both measures, then moving to non-caseness on both measures by the end of treatment.

Following the IAPT methods (NCCMH, 2018), recovery rate is calculated as: (# of clients that moved to recovery)/ [(# clients completed treatment) – (# clients completed treatment and started treatment below caseness)]. Only clients with first/last scores on both measures were included in the calculation.

	All clients (some in progress)			Completed clients (archived)	
	#	Recovery Rate		#	Recovery Rate
Recovery	194	40%		141	44%
Not Recovery	386			232	
Total	580			373	
Not caseness at start	(83)			(56)	

Reliable Recovery After Psychotherapy (Across Both Measures))

For clients who had completed or discontinued counselling, 42% had achieved reliable recovery by the final assessment.

	All clients (some in progress)			Completed clients (archived)	
	#	Rel. Recovery Rate		#	Rel. Recovery Rate
Reliable Recovery	178	37%		133	42%
Not Recovery	402			240	
Total	580			373	
Not caseness at start	(93)			(56)	

In the first year of the IAPT project (Gyani et al., 2013), 43% of clients had achieved reliable recovery by the end of therapy. The reliable recovery rate across Family Service Ontario Demo Project participants is similar to IAPT "year one" results. However, as noted above, the relatively

small sample size in the Demo Project, and self-selection bias among participating clients, means these results may not reflect the broader population of Family Service Ontario client outcomes.

Outcomes across demographic variables

In this set of analyses, anxiety and depression scores at first and last measurement were examined across demographic variables, to see if outcomes were different for different groups of clients.

All clients with demographic data were included in these analyses, to gain the largest possible sample[12]. Anxiety and depression scores were examined for overall differences due to demographic variables (main effect), and differences over in how scores changed over the course of therapy (interaction). Inferential statistics details are provided via endnote links.

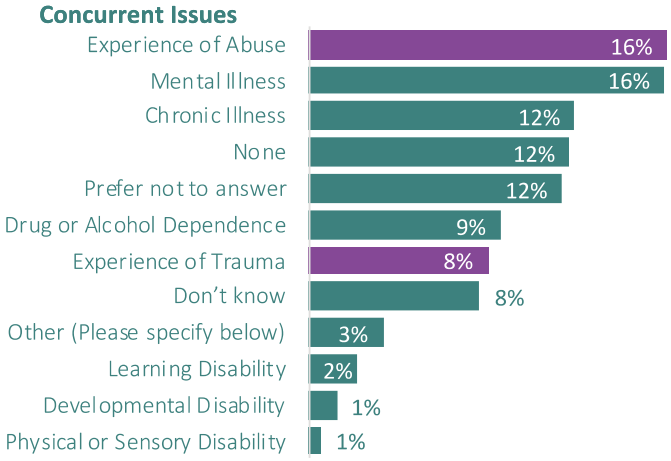
Overall, these analyses show that concurrent issues and lower income may be a risk factor for higher baseline anxiety and depression. The lack of differences in anxiety and depression across other variables may be due to the small sample sizes involved.

Clients with concurrent issues have more severe anxiety and depression

Concurrent issues reported by clients included chronic illness, substance use, trauma and abuse, and physical, developmental, and sensory disabilities.

Most clients reported one or more concurrent issues. About a quarter of clients reported that they had experienced trauma and/or abuse.

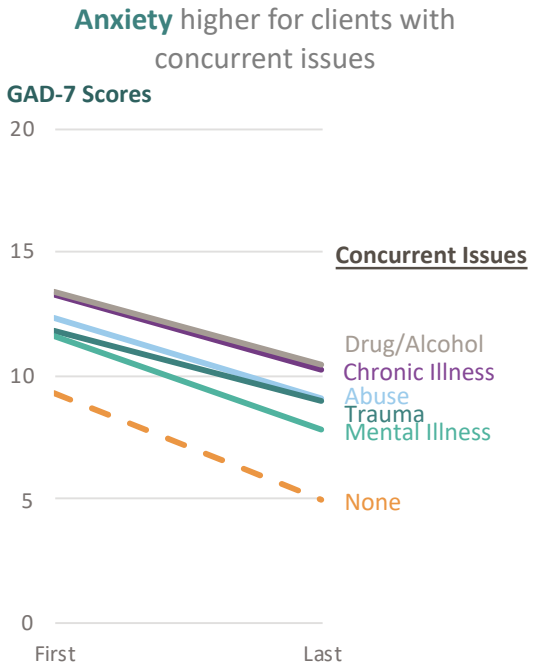
Most clients reported concurrent issues. About a quarter of clients reported experience of trauma and/or abuse. (*n*=860)

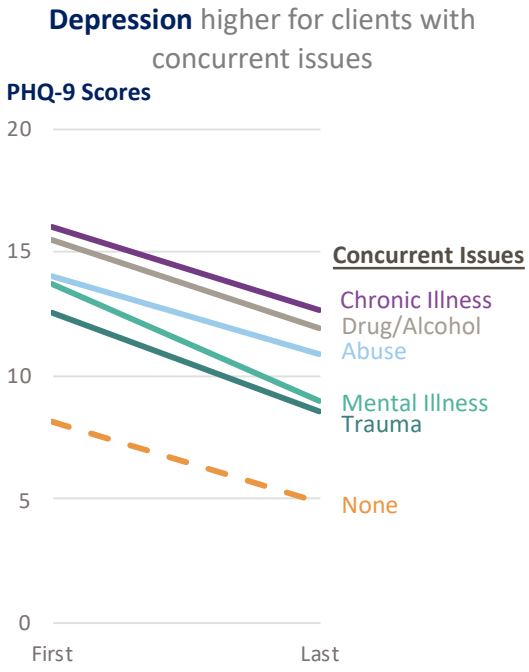


Clients with concurrent issues (i.e., chronic illness, drug or alcohol dependence, mental illness, trauma, abuse[13]) reported worse anxiety and depression at both start and end of therapy, as compared to clients without concurrent issues[i].

[12] This analysis choice was designed to maximize the ability to detect demographic effects and interactions. There were no notable differences in outcomes with analysis using the completed sample.

[13] The sample of clients with concurrent issues related to sensory, physical, or learning disability, or the "other" category was too small for analysis.





Specifically, for clients with concurrent issues, anxiety was moderate at therapy start, compared to mild anxiety for clients without concurrent issues. For clients with concurrent issues, depression at therapy start tended to be closer to the severe or high-moderate threshold, compared to mild depression for clients without concurrent issues.

There was no evidence that the treatment effect of therapy differed for clients based on concurrent issues. However, it is possible the effect was too small to detect with the current sample size.

Overall, these results illustrate that concurrent issues are a risk factor for more severe anxiety and depression, and that FSO agencies are providing effective treatment to clients with a range of concurrent issues and mental health needs (mild to severe anxiety and depression).

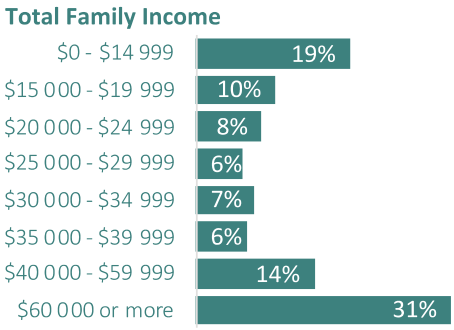
	Concurrent Issue	First Measure			Last Measure		
Client Outcome		*M*	*SD*	*n*	*M*	*SD*	*n*
Anxiety (GAD-7)	Chronic Illness	13.3	5.4	61	10.3	6.4	61
	Drug or Alcohol Dependence	13.4	4.7	45	10.5	6.4	45
	Experience of Abuse	12.3	5.2	81	9.1	5.8	81
	Experience of Trauma	11.9	4.3	44	9.0	5.5	44
	Mental Illness	11.5	4.9	91	7.8	5.3	91
	None	9.3	5.1	46	5.0	4.1	46
Depression (PHQ-9)	Chronic Illness	16.0	5.8	61	12.7	7.6	61
	Drug or Alcohol Dependence	15.5	6.0	45	11.9	6.4	45

	Experience of Abuse	14.0	6.0	81	10.9	6.9	81
	Experience of Trauma	12.5	5.8	44	8.5	5.8	44
	Mental Illness	13.7	6.4	91	8.9	6.7	91
	None	8.2	5.5	46	4.9	4.4	46

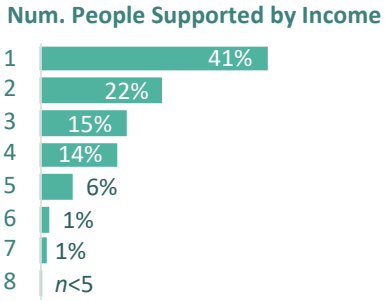
Clients with lower family income have more severe anxiety and depression

In the current sample, the median family income was $35k. Family income supported two or more people in most clients' households.

Half of clients had a family income of less than $35,000 per year (*n*=554)



More than 60% of clients reported their family income supported two or more people (*n*=708)

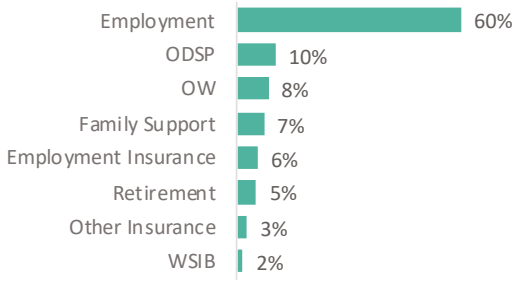


Over half of clients (60%) reported their family income came from employment. Almost 1 in 5 (18%) reported income from OW or ODSP, while about 1 in 20 was supported by retirement income.

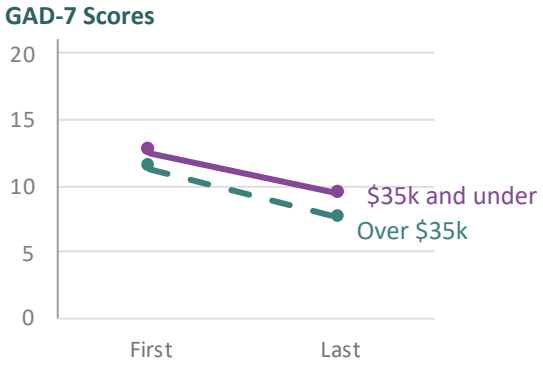
Clients who were employed tended to have a higher family income[ii], while clients on ODSP and OW had lower incomes (typically below the median).

Clients with lower family income (less than $35k per year) reported worse anxiety and depression at both start and end of therapy, as compared to clients with a higher family income (above $35k per year)[iii]. There was no evidence that therapy outcomes differed for clients based on family income.

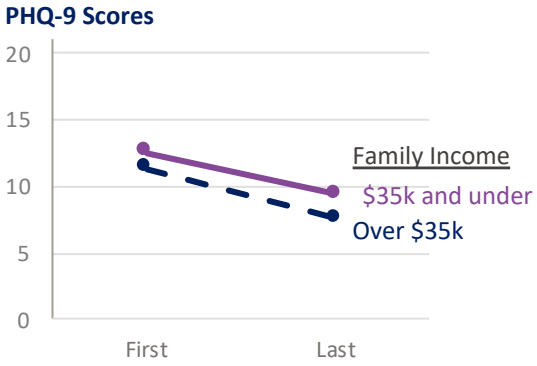
About 4 in 10 clients relied on non-employment sources of income (n=214)



Anxiety is higher for clients with a lower family income



Depression is higher for clients with a lower family income



Overall, these results illustrate that lower family income is a risk factor for more severe anxiety and depression, and that FSO agencies are providing effective treatment to clients with both lower and higher family incomes.

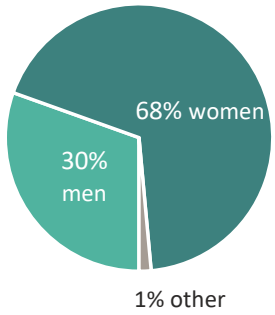
	Family Income	First measure			Last Measure		
Client Outcome	(Median $35k)	*M*	*SD*	*n*	*M*	*SD*	*n*
Anxiety (GAD-7)	Under $35k	12.6	5.0	163	9.4	6.1	163
	$35k and over	11.3	5.4	175	7.5	5.4	175
Depression (PHQ-9)	Under $35k	14.5	6.0	163	10.6	6.7	163
	$35k and over	12.3	6.5	175	8.2	6.3	175

Outcomes similar across different client ages and genders

Clients in the Demo Project ranged in age from 16 (project minimum) to 70+. The median age was 35 years: about half of clients were younger than 35.

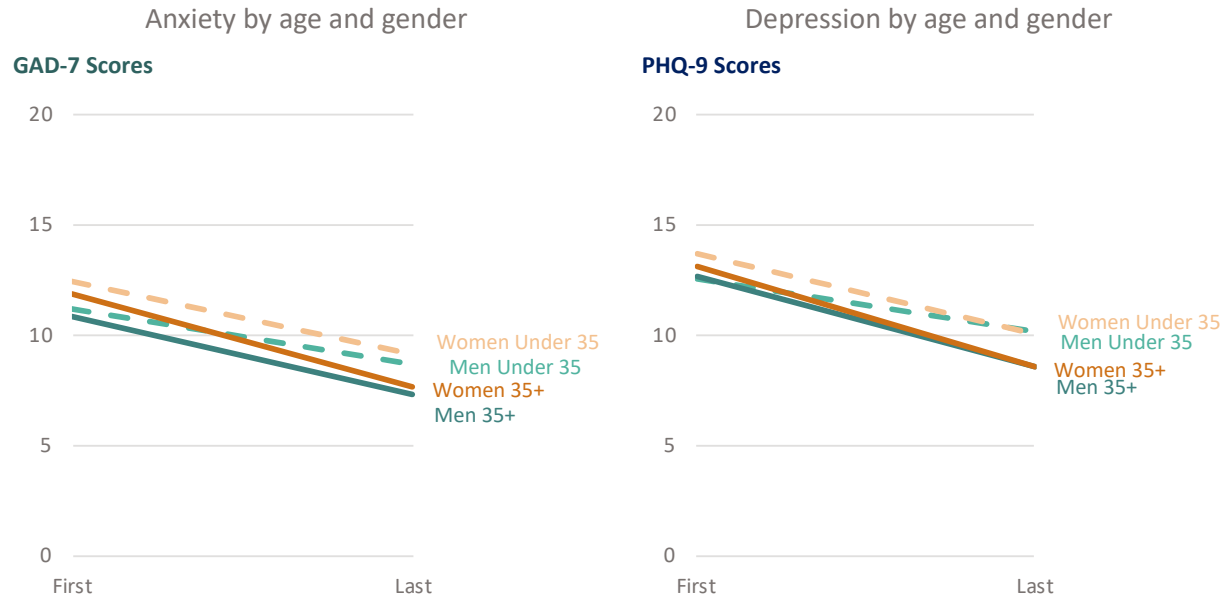
One in five clients were under 25. About half of clients were under 35 years of age.

About two thirds of clients are women and one third are men. (*n*=896)



In the Demo Project, women made up about two-thirds of the sample (68%), men were about a third of the sample (30%), and other gender identities (both, neither, not sure or questioning, two spirited) were 1% of the sample.

There was no evidence that outcomes were significantly affected by age or gender[14, iv]. Overall, gender and age do not appear have strongly impacted client outcomes in the current results. These results illustrate that therapy at Family Service Ontario agencies are helping clients across ages and genders.



However, larger sample sizes are needed to better understand and confirm this finding. It may be that combined influences of age and gender were too small to detect with the current sample. In particular, anxiety and depression may trend higher for women, and for younger adults (under 35). Young men may have different treatment paths than older men.

	Age (Median Split)	Gender	First measure			Last Measure		
			M	SD	N	M	SD	n
Anxiety	Under 35	Men	11.2	5.0	67	8.7	5.3	67
	Under 35	Women	12.4	4.8	177	9.1	5.6	177
	35+	Men	10.8	6.0	73	7.4	6.2	73
	35+	Women	11.9	5.3	182	7.7	5.8	182
Depression	Under 35	Men	12.5	5.7	67	10.1	6.6	67
	Under 35	Women	13.7	6.5	177	10.0	6.5	177
	35+	Men	12.6	6.9	73	8.6	7.3	73
	35+	Women	13.1	6.4	182	8.6	6.7	182

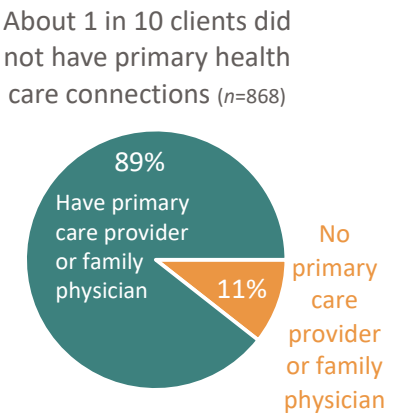
[14] The sample of clients with non-binary genders (both, neither, two spirited, unsure or questioning) was too small to include in the outcome analysis.

Outcomes similar for clients with and without primary care connection

About 1 in 10 clients did not have a primary care connection. There was no evidence of a significant difference in outcome status based on primary care status in the current sample[v].

However, larger sample sizes are needed to better understand and confirm this finding. There are some trends showing that clients with primary care may show larger decreases in anxiety and depression. It may be that primary care influences were too small to detect with the current sample.

Overall, these results illustrate that therapy at Family Service Ontario agencies are helping clients regardless of primary care connections, and that there are opportunities to connect or refer clients to primary care.



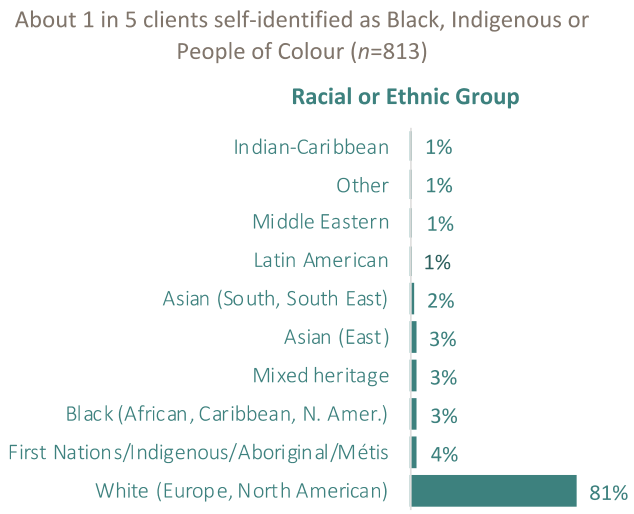
	Primary Care Status	First measure			Last Measure		
		M	SD	n	M	SD	n
Anxiety	No primary care	12.0	5.0	52	8.8	5.9	52
	Has primary care	11.8	5.3	440	8.1	5.7	440
Depression	No primary care	13.2	6.3	52	9.9	6.6	52
	Has primary care	13.1	6.5	440	9.2	6.7	440

Outcomes similar for clients of different racial and ethnic backgrounds

Of clients in the project, about 19% identify as Black, Indigenous, or people of colour

There was no evidence of a significant difference in outcome status based on status as a self-identified Black, Indigenous, or person of colour[15] in the current sample[vi].

However, there are some trends showing that BIPOC clients may be presenting with higher baseline depression. It may be that the current sample was too small to detect outcome differences for racialized clients.



[15] The sample was not large enough to compare outcomes across more specific racial or ethnic backgrounds, so aggregate categories of "BIPOC" vs. "white" were created for the comparison.

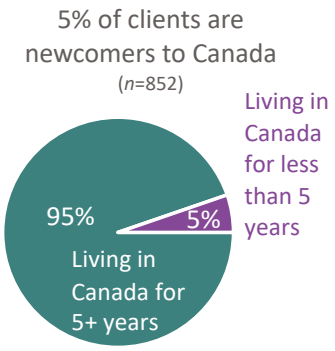
	Self-Identified Racial or Ethnic Background	First measure			Last Measure		
		M	SD	n	M	SD	n
Anxiety	Black, Indigenous, or Person of Colour	11.8	5.4	204	8.4	5.5	204
	White	11.8	5.2	351	8.2	5.8	351
Depression	Black, Indigenous, or Person of Colour	13.6	6.1	204	9.2	6.1	204
	White	13.0	6.5	351	9.2	6.8	351

Outcomes similar for newcomer and non-newcomer clients

Of clients in the project, 5% are newcomers to Canada (within the last 5 years).

There was no evidence of a significant difference in outcome status based on status as coming to Canada in the past five years in the current sample [vii].

However, there are some trends showing that newcomer clients may have higher depression and anxiety. It may be that the current sample was too small to detect outcome differences for newcomer clients.



	Newcomer Status	First measure			Last Measure		
		M	SD	n	M	SD	n
Anxiety	More than 5 years in Canada	11.8	5.3	456	8.2	5.7	456
	Newcomer	12.2	5.1	29	9.3	5.9	29
Depression	More than 5 years in Canada	13.1	6.4	456	9.3	6.7	456
	Newcomer	14.4	6.5	29	10.3	6.4	29

Outcomes similar for Francophone and non-Francophone clients

About 4% of clients in the project were Francophone.

There was no evidence of a significant difference in outcomes based on Francophone status in the current sample [viii]. However, it may be that the current sample was too small to detect outcome differences for Francophone clients.

	Newcomer Status	First measure			Last Measure		
		M	SD	n	M	SD	n
Anxiety	Francophone	12.2	5.1	17	9.8	5.2	17
	Not Francophone	11.8	5.2	489	8.2	5.7	489
Depression	Francophone	13.8	7.1	17	10.0	5.3	17
	Not Francophone	13.2	6.4	489	9.3	6.7	489

Conclusions and Insights from the Demo Project

The Family Service Ontario Demo Project has shown how agencies can work together and build capacity around a coordinated yet flexible approach to outcome measurement. These findings provide a baseline reference for future comparison across Family Service Ontario agencies, and for comparison with other similar projects.

"Therapy as usual" is helping clients with anxiety and depression

Family Service Ontario agencies provide local communities with capacity and expertise in evidence-based psychotherapy approaches to meet client needs, including CBT, narrative therapies, and solution focused therapy.

Overall, "therapy as usual" at Family Service Ontario agencies is yielding improvements in anxiety and depression for participating clients. Reliable improvement (61%) and reliable recovery rates (42%) are similar to values reported at the start of the IAPT initiative (64% and 43%, respectively; Gyani et al., 2013). Based on the Demo Project data, agencies are delivering equity in client outcomes, across demographic factors like gender, age, income, and newcomer status.

These Demo Project results provide a unique insight into positive client impacts after psychotherapy at Family Service Ontario agencies. This report covers data from a first implementation of shared outcome measurement with standardized measures and provides a baseline for future benchmarking and quality improvement work.

Session count considerations

Clients participating in the Family Service Ontario Demo Project attended 5-6 sessions of therapy. In comparison, at the start of the IAPT project (year 2; 2013-14), clients received an average of 6 sessions of counselling (Community and Mental Health Team, 2014).

Incomplete session counts mean that the Demo Project data did not support looking at outcomes by "dose" of therapy intervention. Improved completeness of "session number" data would help clarify the relationship between length of psychotherapy intervention and client outcomes across Family Service Ontario agencies.

There may also be an opportunity to improve Family Service Ontario client outcomes by providing service delivery models where clients can gain access to more treatment sessions. The IAPT project has found that attending a higher number of treatment sessions predicts better client outcomes, including improved reliable improvement and recovery results (Gyani et al., 2013; NCCMH, 2018). The IAPT project is aiming for 9-10 sessions, expecting that "many patients recover with fewer sessions and some need substantially more" (NCCMH, 2018, p.48).

Limitations

Differences in project methodologies (screening and recruitment of participants, uptake of Greenspace measurement, voluntary client participation in measurement) mean that Demo Project results may not be fully comparable to the IAPT and IASP findings.

Potential selection bias among participants and non-representative samples

Outcomes may not fully represent the broader population of FSO clients receiving therapy, including clients who preferred not to participate in the Demo Project. Project participation and ongoing measurement uptake during therapy were voluntary. Some clients stopped Greenspace measurement before the end of counselling, so the final available measure may be from the midpoint rather than the end of counselling.

The subset of clients who provided data on problem descriptors and presenting issues may not be representative of clients from the remainder of the project, or of clients not participating in the Demo Project. Similarly, the sample of clinicians surveyed in June 2020 may not fully represent clinicians participating in the project.

Missing and incomplete data

Data elements that needed to be updated by clinicians (session number and archive date) vary in completeness and accuracy across the dataset. In particular, session counts are not complete in the sample, and may not be reliable.

Sample size limitations and lack of control group

The current sample may not have been large enough to detect differences in outcomes by demographic factors. There is no control group, so some changes in scores may be due to regression to the mean rather than therapeutic impact.

Next Steps

Outcome measurement and quality improvement continues

Through the Demo Project, Family Service Ontario agencies have built capacity to measure client outcomes and use outcome data for quality improvement. This work continues post-project, and agencies are continuing with outcome measurement in different ways. Some are continuing with Greenspace platform and the anxiety and depression measures for clients, and some are looking to expand their suite of validated measures used with clients (e.g., trauma, abuse).

Adapting service delivery and learning from Demo Project lessons

Agencies are currently working to adapt their service delivery models to COVID-19 restrictions. Offering more remote services is also creating new pressures to streamline outcome measurement for clients and clinicians, to reduce barriers to participation and engagement, while collecting robust data to inform clinician practice. The capacity and expertise for agency outcome measurement and change management cultivated through the Demo Project helps enable this transition. Agencies are using lessons learned and resources from the Demo Project to refine their outcome measurement approaches and ensure they have the data they need for clinical excellence and quality improvement.

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Analysis and report by Anne Bergen, PhD, Knowledge *to* Action Consulting Inc.

Statistical Details: Outcomes by Demographics

Clients with Concurrent Issues Have Higher Anxiety and Depression

[i] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed significant effects for **concurrent conditions** with a small effect size (Wilk's $\Lambda = .8$, $F(10,722)=6.9$, $p<.001$, partial $\eta^2=.09$) and significant effect for time with a large effect size (Wilk's $\Lambda = .7$, $F(2,361)=85.3$, $p<.001$, partial $\eta^2=.3$), but non-significant condition x time interaction with a very small effect size (Wilk's $\Lambda = 1.0$, $F(10,722)=.9$, $p=.5$, partial $\eta^2=.01$).

Follow up univariate tests and paired comparisons showed clients who reported "none" for concurrent issues showed significantly lower depression and anxiety than clients who reported experiencing chronic illness, drug or alcohol dependence, mental illness, trauma, or abuse (all p's $\leq .002$). Anxiety and depression decreased after therapy for all clients, regardless of concurrent issue status.

Lower Family Income Clients Have Higher Anxiety and Depression

[ii] Bivariate nonparametric Spearman correlations showed a small significant direct relationship between **income and employment** ($r(552)=.14$, $p<.001$), and small-moderate inverse relationships between family income and OW ($r(552)=.-.25$, $p<.001$) and ODSP ($r(552)=.-.20$, $p<.001$).

[iii] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed significant effects for **family income** with a small effect size (Wilk's $\Lambda = 1.0$, $F(2,335)=6.9$, $p<.001$, partial $\eta^2=.04$) and significant effect for time with a large effect size (Wilk's $\Lambda = .6$, $F(2,335)=96.8$ $p<.001$, partial $\eta^2=.4$), but non-significant condition x time interaction with a very small effect size (Wilk's $\Lambda = 1.0$, $F(2,335)=.6$, $p=.5$, partial $\eta^2=.004$).

Follow up univariate tests showed clients with income below the median showed significantly higher depression and anxiety than clients who had an income above the media (all p's $\leq .004$). Anxiety and depression decreased after therapy for all clients, regardless of income.

No Evidence of Significant Differences in Outcomes By Client Age and Gender

[iv] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed non-significant main effects for **gender** (Wilk's $\Lambda = 1.0$, $F(2,494)=1.7$, $p=.2$, partial $\eta^2=.007$) and for **age** (Wilk's $\Lambda = 1.0$, $F(2,494)=1.9$, $p=.2$, partial $\eta^2=.008$), and a non-significant age x gender interaction (Wilk's $\Lambda = 1.0$, $F(2,494)=.05$, $p=1.0$, partial $\eta^2=.000$).

There was a significant effect for time with a large effect size (Wilk's $\Lambda = .7$, $F(2,494)=102.2$, $p<.001$, partial $\eta^2=.3$).

The time x age interaction was non-significant (Wilk's $\Lambda = 1.0$, $F(2,494)=2.3$, $p=.1$, partial $\eta^2=.009$). The time x gender interaction was non-significant (Wilk's $\Lambda = 1.0$, $F(2,494)=1.4$, $p=.3$, partial $\eta^2=.006$). The time x age x gender interaction was non-significant (Wilk's $\Lambda = 1.0$, $F(2,494)=.3$, $p=.7$, partial $\eta^2=.001$). Follow-up univariate analyses did not detect additional effects.

No Evidence of Significant Differences in Outcomes By Primary Care Status

[v] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed non-significant main effects for **primary care status** (Wilk's $\Lambda = 1.0$, $F(2,489)=.2$, $p=.8$, partial $\eta^2=.001$) and a non-significant time x primary care interaction (Wilk's $\Lambda = 1.0$, $F(2,489)=.3$, $p=.8$, partial $\eta^2=.001$). There was a significant effect for time with a large effect size (Wilk's $\Lambda = .8$, $F(2,489)=47.2$, $p<.001$, partial $\eta^2=.2$).

No Evidence of Significant Differences in Outcomes for BIPOC Clients

[vi] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed non-significant main effects for **BIPOC status** (Wilk's Λ = 1.0, $F(2,552)=.2$, $p=.8$, partial $\eta^2=.001$) and a non-significant time x BIPOC status interaction (Wilk's Λ = 1.0, $F(2,552)=1.7$ $p=.2$, partial $\eta^2=.006$).
There was a significant effect for time with a large effect size (Wilk's Λ = .6, $F(2,552)=149.43$, $p<.001$, partial $\eta^2=.4$).

No Evidence of Significant Differences in Outcomes by Newcomer Status

[vii] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed non-significant main effects for **newcomer status** (Wilk's Λ = 1.0, $F(2,482)=.6$, $p=.5$, partial $\eta^2=.002$) and a non-significant time x newcomer status interaction (Wilk's Λ = 1.0, $F(2, 482)=.5$, $p=.6$, partial $\eta^2=.002$).
There was a significant effect for time with a large effect size (Wilk's Λ = .9, $F(2,482)=28.5$, $p<.001$, partial $\eta^2=.1$).

No Evidence of Significant Differences in Outcomes by Francophone Status

[viii] Multivariate repeated measures ANOVA looking at changes in anxiety and depression from first to final measurement showed non-significant main effects for **Francophone status** (Wilk's Λ = 1.0, $F(2,503)=.4$, $p=.7$, partial $\eta^2=.002$) and a non-significant time x newcomer status interaction (Wilk's Λ = 1.0, $F(2, 503)=.6$, $p=.5$, partial $\eta^2=.003$).
There was a significant effect for time with a large effect size (Wilk's Λ = .9, $F(2,503)=15.6$, $p<.001$, partial $\eta^2=.06$).

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Algoma Family Services

Carizon

Catholic Community Services of York Region

Catholic Family Services of Durham

Catholic Family Services of Hamilton-Wentworth

Catholic Family Services of Simcoe County

Catholic Family Services Peel-Dufferin

Catholic Family Services Toronto

Chinese Family Services of Ontario

Community Counselling Centre of Nipissing

Counselling Centre of East Algoma

Family Counselling and Support Services for Guelph Wellington

Family Counselling Centre of Brant

Family Service Kent

Family Services Durham

Family Services of Windsor Essex

Family Services Ottawa

Family Counselling Centre of Cambridge and North Dumfries

Interfaith Counselling Centre

K-W Counselling Services

North of Superior Counselling Programs

Northumberland Community Counselling Centre

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Shalom Counselling Services

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