

# Background and psychometric validation of the Ontario Perception of Care tool for Mental Health and Addictions (OPOC-MHA)

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## Introduction

In the health care sector, the measurement of “patient satisfaction” has a long and storied history (Siegrist, 2013) and now plays a prominent role in performance measurement and quality improvement through its unique ability to incorporate the consumer perspective on both service delivery processes and outcomes. This long-standing interest applies equally well for mental health (Campbell, 1998; Druss, Rosenheck & Stolar, 1999) and substance use health services (McLellan, Chalk & Bartlett, 2007; McLellan & Hunkeler, 1998); that is, the behavioural health sector generally. Research in this sector has focused on theoretical and conceptual contributions (Williams & Wilkinson, 1995); tool development and validation (e.g., Ruggeri, 2010); the fit with other domains of process and outcome measurement (e.g., Smith et al., 1997; Rush et al., 2012; Carlson et al., 2001); and utility for quality improvement (e.g., Trujois et al., 2014).

A shift in language occurred over this research trajectory, which involved a movement away from measuring patient or client “satisfaction” to measuring “perception of care”. This shift is intended to reflect a move from measuring the reaction to the services received (Graham et al., 1993), from which quality standards are often difficult to interpret, to ask more directly about the care experience in relation to what is expected as standard practice (Einsen, 2010). The nuance is subtle but important, since the range of responses based on a perception of care approach is likely to be wider given respondents may be more willing to report infrequent exposure to, or use of, a practice than express dissatisfaction with this aspect of their care *per se*. The shift in focus is also consistent with a broader recovery-oriented approach to system design and evaluation that values the perspectives of people with lived and living experience and inclusion in measuring the outcomes of the services they receive (Rose et al., 2011).

## Development and Implementation

Recognizing the importance of involving patients and clients in improvement processes for mental health and addictions services, the Ontario Perception of Care Tool for Mental Health and Addictions (OPOC-MHA) was developed, pilot tested and validated by a research and development team at the Centre for Addiction and Mental Health (CAMH) on behalf of the Ontario Ministry of Health and Long-Term Care (MoHLTC) between 2011 and 2014 (Rush et al., 2014). Key aspects of the new measure were its intended use across both mental health and substance use services, its applicability for both hospital and community-based organizations, and its focus on measuring perceptions of service delivery that are tangibly amenable to quality improvement and evaluation at the service,

organization, or system level. As of June 2020, the OPOC-MHA is implemented in over 230 publicly funded mental health, addiction, and concurrent disorder programs across Ontario, Canada. The aim for a common, standardized measure across this large and diverse service delivery sector was driven by the expressed need for comparative data across like programs, something lacking in the field based on the plethora of tools available at the time in the published or grey literature (Rush et al., 2014).

Briefly, the tool development process covered several steps, including a comprehensive literature review and a rigorous development, piloting and validation process ([see Rush et al., 2014 for more detail](#)). Input from a stakeholder-based project advisory committee was received at every step.

Two versions of the tool emerged from this development process – one for clients working on their own mental health, substance use and/or problem gambling-related challenges (MH/SU/PG), and the other for family members or other caregivers receiving services and supports in relation to another person working on MH/SU/PG (see Appendix A and B). The tool consists of 38 items assessing perceptions of care across the treatment episode, with a supplementary set of 11 items on demographic characteristics and selected aspects of their program involvement. (e.g., mandated or not; stage of service delivery). Items were drawn only from validated tools identified through the literature search (eight in total), which had been used previously within both mental health and addiction services. They were selected on the basis of being directly actionable for quality improvement purposes.

Based on findings from the literature review, as well as important input from the project advisory committee, the bank of items was then grouped into eight domains based on a logical flow of a person entering and leaving the program and important dimensions of the program seen to be important for a positive experience and positive outcome. The ninth domain was comprised of items specific to residential/inpatient services.

## **Sub-domains of the OPOC-MHA**

- Access/Entry to Services (6)
- Services Provided (5)
- Participation/Rights (5)
- Therapists/Support Workers/Staff (5)
- Environment (5)
- Discharge or Finishing the Program/Treatment (3)
- Overall Experience (3)
- Residential/inpatient experience (6)
- *Other*: Participant characteristics and program participation (11)

Pilot testing occurred in 23 organizations which represented 82 mental health and substance use health programs with good regional distribution across the province. A total of 1772 program participants responded, 1,476 (83.3%) being clients with MH/SU/PG related challenges and 205 (11.6%) being clients who were family members or other caregivers. A further 91 non-registered family members/caregivers were also surveyed (5.2%) but then excluded from subsequent psychometric analyses. When grouped by program type 1476 (83.3%) participants were clients of non-residential/outpatient services and 296 (16.7%) clients of residential/inpatient services. In addition to an assessment of individual items (e.g., challenges in interpretation, amount of missing or not applicable responses), confirmatory factor analysis was used to identify sub-scales for the main suite of items, excluding the residential-specific and demographic items. This analysis was conducted with an eye toward generating summary scores that may be useful for various evaluation or quality improvement initiatives (irrespective of the pre-identified domains). Findings revealed **two** potentially useful subscales: one comprised of the “access and entry” domain items, and a second comprised of all remaining items.

### Need for renewed psychometric analyses

Since 2016, and with specialized implementation support of a designated team within the Provincial Services and Supports Program at CAMH, the OPOC-MHA has been widely adopted across Ontario. A central database managed through the DATIS team at CAMH, now routinely captures the OPOC-MHA data from all participating programs and as of May 2021 contained approximately 70, 500 participant records<sup>3</sup>. Such widespread provincial implementation opened the door to a wider range of options for statistical evaluation than were available during the research and development phase. In short, there is high interest in further analysis that may allow for more robust and confident use of all or most of the specific domain scales originally developed for the OPOC-MHA. Program representatives implementing the tool as well as members of the PSSP implementation support team frequently asked if they could use the original domains on their own; for example, by calculating an average score across the items in the Therapists/Support Workers/Staff domain to evaluate changes after a QI initiative focused on program enhancements specific to that area. Initial analyses did not explore the potential use of the domains in this way. Based on the extensive implementation of the OPOC/MHA to date, and the resulting

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<sup>3</sup> The updated number as of March 31, 2023 is 112, 676 OPOC surveys.

size of the database, the opportunity presented itself for domain-specific analysis<sup>4</sup>. The purpose of this report is to present the results of this new analysis and discuss implications for using the tool in a research, evaluation, and QI context.

## Methods

A dataset containing all administrations as of May 2021 was exported from the OPOC-MHA database to an excel file and analyzed with Stata 16.1. Compared to the initial approach used for psychometric evaluation (which took a data-driven approach to identifying subscales), the aim in the new strategy was to evaluate the statistical veracity of the 8 domains as they were originally conceptualized. This new approach was designed to determine whether it was statistically defensible to use the domain-specific scores in evaluation and QI initiatives, given the desire of stakeholders to use them in this way (and the strong conceptual grounding of the domains in literature).

*Preliminary descriptive analyses:* We separated the sample into two groups, based on whether participants were clients in treatment for their own MH/SU/PG concerns versus those who identified themselves as a family member or other loved one. We ran frequency distributions of the demographic characteristics and other treatment items, to create descriptions of these two groups. This was done for all participants together and separately for those in “non-residential/outpatient” and “residential/inpatient” settings<sup>5</sup>.

*Domain-specific analyses:* We then conducted a series of tests to examine item and “scale” score properties, with items grouped by their original domains. For this analysis, we restricted the tests based on self-reported stage of treatment (see Table 1). The aim was to restrict the analysis to those participants for whom each scale was relevant, based on the content of the domain. For example, the discharge planning scale would not reveal meaningful information for someone who reports just starting treatment, whereas all participants (even those who are just starting treatment) could reasonably be expected to answer questions about access and entry processes.

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<sup>4</sup> The authors have also benefited from subsequent consultation from the research team at the Homewood Research Institute, in particular Dr. James MacKillop.

<sup>5</sup> In mental health services as well as many concurrent disorder services the common terms are “outpatient” and “inpatient”, whereas in the substance use sector the terms “residential” and “non-residential” are much more common.

Table 1: Sample restrictions for domain-specific analyses based on stage of treatment.

<b>Domain</b>	<b>Stage of treatment included in analyses</b>	<b>Stage of treatment excluded from analysis</b>
Access and entry	All	---
Services provided	Completed, in progress, left early, other	Getting started, missing
Participation/rights	Completed, in progress, left early, other	Getting started, missing
Therapists/support workers/staff	Completed, in progress, left early, other	Getting started, missing
Environment	Completed, in progress, left early, other	Getting started, missing
Discharge/finishing treatment	Completed, left early	Getting started, in progress, other, missing
Overall	All	---
Residential	Completed, in progress, left early, other	Getting started, missing

An average score (mean), the variation around that average (standard deviation), and the correlation of each item in the domain with all other items in that domain (inter-item correlations) were calculated. This domain-level analysis also examined the internal consistency of the scales using a measure known as Cronbach's alpha (Cronbach, 1951). Internal consistency is one test for scale reliability and is based on the correlation between different items in a scale. This correlation indicates if the items intended to measure the same construct produce similar scores. Importantly, Cronbach's alpha is not a measure of the validity of a scale but is considered to indirectly indicate the degree to which a set of items measures a single construct. We calculated Cronbach's alpha for all respondents together and then separately for clients in treatment for their own MH/SU/PG concern and those clients who identified themselves as a family member or other loved one.

For clients in treatment for their own MH/SU/PG, we compared mean scale scores across sub-groups based on self-reported stage of treatment. This is a test of construct validity, or whether scores behave as expected; specifically, lower mean scores (indicating lower satisfaction with services) are expected for those who have left treatment early compared to those who are still attending or have completed treatment. This analysis was repeated for clients who identified themselves as a family member or other loved one.



Finally, to illustrate the potential of the domain-specific scales for analyses of sub-populations of possible interest for research, evaluation and quality improvement, we compared the mean score on each scale across sub-groups of clients in treatment for MH/SU/PG based on gender identity.

## Results

Tables 2 and 3 show the demographic characteristics of clients with their own MH/SU/PG concerns and family members or other loved ones, respectively<sup>6</sup>. For each, the tables are broken down by broad service category: non-residential/outpatient and residential/inpatient.

Although the goal here is not to provide an in-depth analysis and commentary about the demographic makeup of the populations accessing mental health, substance use and problem gambling services in Ontario the data do illustrate the population diversity and provide the provincial context for using OPOC-MHA validation data for various purposes at the sub-region or program-level. For example, both Tables 2 and 3 show for somewhat higher percentage of men compared to women accessing residential/inpatient services. Youth working on their own MH/SU/PG concerns are also somewhat more represented in residential/inpatient services. Although certain sub-populations predominate in each demographic breakdown (e.g., English) the diversity within each demographic is also clearly evident. Regionally, it would appear that Toronto-Central is somewhat under-represented based on population size. For each broad demographic category, the data also illustrate the percentage of people for whom the data are missing, being in the 5-10% range, except for sexual orientation which is closer to 20% for clients working on their own MH/SU/PG concerns and 15% for family and other loved ones.

Table 2: Demographic characteristics of clients with their own MH/SU/PG concerns by type of service category (N=67589)

	Non-Res.- Outpatient N=49093		Residential Inpatient N=17518		Total N=67589	
	n	%	N	%	N	%
<b>Gender</b>						
Woman	24502	52.83	7102	42.13	32052	49.95
Man	21296	45.92	9533	56.56	31300	48.78

<sup>6</sup> In the interest of brevity in these and other tables we use the headings “OWN MH/SU/PG” and “FAMILY”.

	<b>Non-Res.- Outpatient N=49093</b>		<b>Residential Inpatient N=17518</b>		<b>Total N=67589</b>	
	<b>n</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Trans man	210	0.45	65	0.39	276	0.43
Trans woman	140	0.30	67	0.40	210	0.33
Other genders	233	0.50	89	0.53	334	0.52
Total valid	46381	100.00	16856	100.00	64172	100.00
Missing	2712	5.52	662	3.78	3417	6.63
<b>Age Group</b>						
<=12	113	0.25	49	0.30	162	0.26
13-18	2261	4.97	1249	7.59	3567	5.67
19-25	5415	11.90	1983	12.05	7472	11.88
26-34	8370	18.39	3985	24.22	12494	19.86
35-44	8926	19.61	3576	21.74	12655	20.12
45-54	8442	18.54	2645	16.08	11287	17.94
55-65	7925	17.41	2142	13.02	10252	16.30
65+	4070	8.94	822	5.00	5010	7.97
Total valid	45522	100.00	16451	100.00	62899	100.00
Missing	3571	7.27	1067	6.09	4690	9.09
<b>Mother Tongue</b>						
English	39162	85.84	14311	86.49	54201	85.91
French	2771	6.07	883	5.34	3793	6.01
Other	3691	8.09	1352	8.17	5098	8.08
Total valid	45624	100.00	16546	100.00	63092	100.00
Missing	3469	7.07	972	5.55	4497	8.72
<b>Preferred Language</b>						
English	42474	94.33	15617	95.73	58814	94.61
French	1586	3.52	480	2.94	2160	3.47
Other	967	2.15	216	1.32	1190	1.91
Total valid	45027	100.00	16313	100.00	62164	100.00
Missing	4066	8.28	1205	6.88	5425	10.52
<b>Sexual orientation</b>						
Bisexual	2986	7.16	1208	8.05	4241	7.37
Gay	832	2.00	341	2.27	1187	2.06
Heterosexual	33649	80.71	11679	77.87	46014	80.00
Lesbian	552	1.32	239	1.59	798	1.39
Asexual/non-sexual	2123	5.09	858	5.72	3028	5.26
Not sure/questioning	1001	2.40	450	3.00	1472	2.56

	<b>Non-Res.- Outpatient N=49093</b>		<b>Residential Inpatient N=17518</b>		<b>Total N=67589</b>	
	<b>n</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Queer	365	0.88	116	0.77	485	0.84
Two-spirit	182	0.44	108	0.72	292	0.51
Other	1725	4.14	717	4.78	2482	4.32
Total valid	41690	100.00	14999	100.00	57517	100.00
Missing	7403	15.08	2519	14.38	10072	19.53
<b>Population Group</b>						
Asian	2474	5.38	679	4.09	3195	5.03
Black	1560	3.40	832	5.02	2438	3.84
Indigenous	2364	5.14	1132	6.82	3540	5.58
Latin American	465	1.01	200	1.21	670	1.06
Middle Eastern	521	1.13	232	1.40	765	1.21
Multiple or mixed	1932	4.20	944	5.69	2914	4.59
White	36633	79.73	12569	75.77	49934	78.69
Total valid	45949	100.00	16588	100.00	63456	100.00
Missing	3144	6.40	930	5.31	4133	8.01
<b>OPOC Language</b>						
French	716	1.46	221	1.26	937	1.39
Cambodian/Cantonese/ Mandarin/Korean/ Vietnamese <sup>7</sup>	427	0.87	9	0.05	436	0.65
English (assumed)	47950	97.67	17288	98.69	66216	97.97
Total valid	49093	100.00	17518	100.00	67589	100.00
<b>Region (former LHIN)</b>						
Erie St. Clair	1710	3.48	1833	3.73	3545	5.24
South West	5982	12.19	909	1.85	6994	10.35
Waterloo Wellington	385	0.78	6	0.01	391	0.58
Hamilton Niagara Haldimand Brant	3439	7.01	805	1.64	4279	6.33
Central West	1997	4.07	285	0.58	2403	3.56
Mississauga Halton	1492	3.04	215	0.44	1707	2.53
Toronto Central	4391	8.94	2587	5.27	6978	10.32
Central	3095	6.30	738	1.50	3833	5.67
Central East	7057	14.37	2063	4.20	9323	13.79
South East	3065	6.24	708	1.44	3773	5.58

<sup>7</sup> Sub-categories collapsed due to small cell sizes.

	<b>Non-Res.- Outpatient N=49093</b>		<b>Residential Inpatient N=17518</b>		<b>Total N=67589</b>	
	<b>n</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Champlain	8539	17.39	3696	7.53	12527	18.53
North Simcoe Muskoka	1272	2.59	1992	4.06	3264	4.83
North East	4495	9.16	1452	2.96	6169	9.13
North West	2174	4.43	229	0.47	2403	3.56
Total valid	49093	100.00	17518	35.68	67589	100.00

Table 3: Demographic characteristics of clients who are family members and other loved ones by type of service category (N=2881).

	<b>Non-Res Outpatient N=2479</b>		<b>Residential/ Inpatient N=365</b>		<b>Total N=2881</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Gender</b>						
Woman	1661	69.97	207	58.97	1891	68.54
Man	705	29.70	139	39.60	855	30.99
Other genders <sup>8</sup>	8	0.34	-	-	-	-
Total valid	2374	100.00	351	100.00	2759	100.00
Missing	105	4.24	14	3.84	122	4.23
<b>Age Group</b>						
<=12/13-18 <sup>8</sup>	83	3.56	13	3.82	108	3.99
19-25	92	3.95	18	5.29	111	4.11
26-34	224	9.61	39	11.47	265	9.80
35-44	337	14.46	71	20.88	413	15.28
45-54	602	25.84	80	23.53	687	25.42
55-65	647	27.77	81	23.82	733	27.12
65+	345	14.81	36	10.59	386	14.28
Total valid	2330	100.00	340	100.00	2703	100.00
Missing	149	6.01	25	6.85	178	6.18
<b>Mother Tongue</b>						
English	1951	83.52	291	85.09	2270	83.67
French	171	7.32	10	2.92	186	6.86
Other	214	9.16	41	11.99	257	9.47
Total valid	2336	100.00	342	100.00	2713	100.00
Missing	143	5.77	23	6.30	168	5.83

<sup>8</sup> Sub-categories collapsed due to small cell sizes.

	<b>Non-Res Outpatient N=2479</b>		<b>Residential/ Inpatient N=365</b>		<b>Total N=2881</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Preferred Language</b>						
English	2187	94.31	330	96.49	2548	94.51
French	76	3.28	-	-	84	3.12
Other	56	2.41	-	-	64	2.37
Total valid	2319	100.00	342	100.00	2696	100.00
Missing	160	6.45	23	6.30	185	6.42
<b>Sexual orientation</b>						
Bisexual	66	3.11	15	4.85	82	3.33
Gay/Lesbian <sup>8</sup>	33	1.55	-	-	38	1.22
Heterosexual	1907	89.87	256	82.85	2186	88.83
Asexual/non-sexual	75	3.53	21	6.80	101	4.10
Not sure/questioning	26	1.23	13	4.21	39	1.58
Queer/Two-Spirit <sup>9</sup>	15	0.70	-	-	15	0.60
Other	62	2.92	23	7.44	87	3.54
Total valid	2122	100.00	309	100.00	2461	100.00
Missing	357	14.40	56	15.34	420	14.58
<b>Population Group</b>						
Asian	108	4.60	29	8.36	138	5.05
Black	45	1.92	15	4.32	63	2.31
Indigenous	97	4.13	14	4.03	112	4.10
Latin American	31	1.32	-	-	35	1.28
Middle Eastern	31	1.32	-	-	35	1.28
Multiple or mixed	64	2.72	20	5.76	85	3.11
White	1973	83.99	261	75.22	2264	82.87
Total valid	2349	100.00	347	100.00	2732	100.00
Missing	130	5.24	18	4.93	149	5.17
<b>OPOC Language</b>						
Cambodian/Cantonese/ Mandarin/Korean/ Vietnamese	62	2.58	-	-	46	1.64
French	29	1.17	-	-	33	1.15
English (assumed)	2403	96.93	361	98.90	2801	97.22
Total valid	2479	100.00	365	100.00	2881	100.00
<b>Region (former LHIN)</b>						
Erie St. Clair	82	3.31	128	35.07	210	7.29
South West	240	9.68	26	7.12	284	9.86

	<b>Non-Res Outpatient N=2479</b>		<b>Residential/ Inpatient N=365</b>		<b>Total N=2881</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
	Waterloo Wellington	34	1.37	-	-	34
Hamilton Niagara Haldimand Brant	195	7.87	14	3.84	209	7.25
Central West	39	1.57	-	-	42	1.46
Mississauga Halton	80	3.23	7	1.92	87	3.02
Toronto Central	212	8.55	46	12.60	258	8.96
Central	74	2.99	33	9.04	107	3.71
Central East	297	11.98	21	5.75	320	11.11
South East	66	2.66	18	4.93	84	2.92
Champlain	744	30.01	42	11.51	798	27.70
North Simcoe Muskoka	58	2.34	8	2.19	66	2.29
North East	315	12.71	19	5.21	339	11.77
North West	43	1.73	-	-	43	1.49
Total valid	2479	100.00	365	100.00	2881	100.00

Tables 4 and 5 show the proportions of the two samples of clients represented in four broad service categories: addictions, concurrent disorders, mental health and problem gambling services. For participants with their own MH/SU/PG concerns about twice as many were registered in mental health services compared to addictions services (Table 3; 62.1% compared to 30.1%, respectively). These proportions were about equal for clients who are family members and other loved ones (Table 5). For both groups of clients, the large percentage were not mandated. The two groups of clients were also roughly similar in terms of reported stage of treatment: about 15% were “getting started”; about half reported that their treatment was “in progress”; and about 20% had completed and still receiving service. This variability reflects the flexibility in data collection procedures afforded to the participating programs using the OPOC-MHA, for example, some doing so as a point-in-time “blitz” and others asking clients to participate upon discharge.

Table 4: Program involvement characteristics of clients with their own MH/SU/PG concerns by type of service category (N=67589).

<b>Service Category</b>	<b>Non-Res Outpatient N=49093</b>		<b>Residential/ Inpatient N=17518</b>		<b>Total N=67589</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>N</b>	<b>%</b>
	Addictions	12642	25.75	7549	43.09	20313
Concurrent Disorders	3077	6.27	1575	8.99	4710	6.97
Mental Health	32915	67.05	8233	47.00	41944	62.06

	<b>Non-Res Outpatient N=49093</b>		<b>Residential/ Inpatient N=17518</b>		<b>Total N=67589</b>	
Problem Gambling	456	0.93	161	0.92	619	0.92
Total valid	49090	100.00	17518	100.00	67586	100.00
Missing	3	0.01	0	0.00	3	0.01
<b>Mandated</b>						
No	34766	82.93	10906	72.80	46335	80.25
Yes	7154	17.07	4075	27.20	11404	19.75
Total valid	41920	100.00	14981	100.00	57739	100.00
Missing	7173	14.61	2537	14.48	9850	19.10
<b>Stage of treatment</b>						
Completed	7515	17.49	3716	24.16	11301	19.08
Completed, still receiving service	4920	11.45	2002	13.01	7008	11.83
In progress	22600	52.61	6223	40.45	29402	49.65
Left early	275	0.64	178	1.16	457	0.77
Other	1597	3.72	640	4.16	2294	3.87
Getting started	6050	14.08	2624	17.06	8755	14.78
Total valid	42957	100.00	15383	100.00	59217	100.00
Missing/don't know/prefer not to answer	6136	12.50	2135	12.19	8372	16.23

Table 5: Program involvement characteristics of clients who are family members and other loved ones by type of service category (N=2881)<sup>9</sup>

<b>Service domain</b>	<b>Non-Res Outpatient N=2479</b>		<b>Residential/ Inpatient N=365</b>		<b>Total N=2881</b>	
	n	%	n	%	N	%
Addictions	1173	47.32	177	48.49	1366	47.41
Concurrent Disorders	117	4.72	15	4.11	135	4.69
Mental Health	1143	46.11	170	46.58	1331	46.20
Problem Gambling	46	1.86	-	-	49	1.70
Total valid	2479	100.00	365	100.00	2881	100.00
<b>Mandated</b>						
No	2012	92.98	273	86.12	2311	91.96
Yes	152	7.02	44	13.88	202	8.04
Total valid	2164	100.00	317	100.00	2513	100.00
Missing	315	12.71	48	13.15	368	12.77

<sup>9</sup> Cell counts 5 or less are suppressed. Totals for each category include the suppressed case counts.

	<b>Non-Res Outpatient N=2479</b>		<b>Residential/ Inpatient N=365</b>		<b>Total N=2881</b>	
<b>Stage of treatment</b>						
Completed	489	22.82	73	22.88	564	22.60
Completed, still receiving service	287	13.39	47	14.73	339	13.58
In progress	946	44.14	115	36.05	1079	43.23
Left early	14	0.65	-	-	18	0.72
Other	116	5.41	22	6.90	141	5.65
Getting started	291	13.58	59	18.50	355	14.22
Total valid	2143	100.00	319	100.00	2496	100.00
Missing/don't know/prefer not to answer	336	13.55	46	12.60	385	13.36

### Item and domain-specific analyses

Table 6a and 6b show results of the item-level and domain or “scale” level analyses for the “Access and Entry” domain; first showing in Table 6a the six items that comprise the domain, largely for reference in interpreting the results and making future comparisons to smaller scale study samples. In Table 6b the first quite noticeable finding, and not unexpectedly, is the skewed distribution of responses to each item as reflected in both the percentage responding three or four on the item’s rating scale<sup>10</sup> as well as the mean on each item, typically 3.3 to 3.5. The level of missing data for each item is also identified, typically between 4% to 5%. Importantly, the results for each item are quite close when comparing across the two sub-samples of clients.

Appendix C contains similar tables for each of the other domains with each highlighting the skew in responses (toward greater satisfaction with services) and low level of missing data per item. As noted earlier (see Table 1), these domain-specific analyses were restricted to clients depending on their reported stage of treatment. Data not shown also highlighted the general similarities in item-level performance across clients of non-residential/outpatient programs and residential/inpatient programs.

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<sup>10</sup> The items are rated on a four-point scale: 1= Strongly Disagree, 2= Disagree, 3= Agree and 4= Strongly Agree



*Individual items in the Access and Entry Domains:*

- Q01: The wait time for services was reasonable for me
- Q02: When I first started looking for help, services were available at times that were good for me
- Q03: The location of services was convenient for me
- Q04: I was seen on time when I had appointments
- Q05: I felt welcome from the start
- Q06: I received enough information about the programs and services available to me

Table 6: Item distribution by client sub-sample: Access and Entry Domain

	<b>OWN MH/SU/PG Total N=67589</b>		<b>Family Total N=2881</b>		<b>Full Sample N=70476</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Q01</b>						
1	2356	3.66	95	3.51	2451	3.66
2	5255	8.17	240	8.86	5495	8.20
3	25457	39.59	1026	37.89	26484	39.52
4	31238	48.58	1347	49.74	32585	48.62
total valid	64306	100.00	2708	100.00	67015	100.00
missing/NA	3283	4.86	173	6.00	3461	4.91
Mean	3.33		3.34		3.33	
SD	0.78		0.78		0.78	
Median	3		3		3	
<b>Q02</b>						
1	2154	3.38	86	3.17	2240	3.37
2	5471	8.59	257	9.48	5729	8.63
3	26729	41.97	1150	42.40	27879	41.98
4	29336	46.06	1219	44.95	30555	46.01
total valid	63690	100.00	2712	100.00	66403	100.00
missing/NA	3899	5.77	169	5.87	4073	5.78
Mean	3.31		3.29		3.31	
SD	0.77		0.77		0.77	
Median	3		3		3	
<b>Q03</b>						
1	1691	2.62	59	2.13	1750	2.60
2	5230	8.09	226	8.16	5456	8.09
3	26377	40.81	1109	40.07	27487	40.78
4	31337	48.48	1374	49.64	32711	48.53

	<b>OWN</b>		<b>Family</b>		<b>Full Sample</b>	
	<b>MH/SU/PG</b>	<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>n</b>	<b>%</b>
	<b>N=67589</b>	<b>N=2881</b>	<b>N=2881</b>	<b>N=70476</b>		
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>		
total valid	64635	100.00	2768	100.00	67404	100.00
missing/NA	2954	4.37	113	3.92	3072	4.36
Mean	3.35		3.37		3.35	
SD	0.74		0.72		0.74	
Median	3		3		3	
<b>Q04</b>						
1	903	1.43	28	1.08	931	1.42
2	2776	4.40	70	2.69	2846	4.33
3	22781	36.11	745	28.68	23527	35.81
4	36632	58.06	1755	67.55	38387	58.44
total valid	63092	100.00	2598	100.00	65691	100.00
missing/NA	4497	6.65	283	9.82	4785	6.79
Mean	3.51		3.63		3.51	
SD	0.65		0.59		0.65	
Median	4		4		4	
<b>Q05</b>						
1	1059	1.63	29	1.05	1088	1.60
2	2101	3.23	40	1.45	2141	3.16
3	19101	29.35	581	21.03	19683	29.01
4	42813	65.79	2113	76.47	44926	66.23
total valid	65074	100.00	2763	100.00	67838	100.00
missing/NA	2515	3.72	118	4.10	2638	3.74
Mean	3.59		3.73		3.60	
SD	0.64		0.54		0.63	
Median	4		4		4	
<b>Q06</b>						
1	2356	3.66	47	1.72	1320	1.97
2	5255	8.17	121	4.42	4168	6.21
3	25457	39.59	929	33.95	26038	38.78
4	31238	48.58	1639	59.90	35617	53.05
total valid	64306	100.00	2736	100.00	67143	100.00
missing/NA	3283	4.86	145	5.03	3333	4.73
Mean	3.43		3.52		3.43	
SD	0.70		0.66		0.70	
Median	4		4		4	

Table 7 shows the basic descriptive statistics for each OPOC MHA domain and for each of the two sub-samples of clients, including values of Cronbach’s alpha measuring “internal consistency” of each scale. An alpha of 0.6-0.7 indicates an “acceptable” level of reliability, and 0.8 or greater a “very good” to “excellent” level. Higher values indicate higher agreement between items. High values indicate that response values for each participant across a set of questions are consistent. For example, when participants give a high response for one of the items, they are also likely to provide high responses for the other items. However, values of alpha higher than 0.95 are not necessarily good, since they might be an indication of redundancy (Hulin et al., 2001). Across domains, all values for Cronbach’s alpha are in the “very good” to “excellent” range. For each domain, the correlations between the items (which give rise to the values of Cronbach’s alpha) are shown in Appendix D for reference.

Table 7: Descriptive statistics and Cronbach alpha for each OPOC-MHA domain by client sub-group.

<b>SUB-GROUP AND DOMAIN</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Cronbach’s alpha</b>
<b>OWN MH/SU/PG (N=67,589)</b>				
Access and Entry	65,438	3.42	.54	.84
Services Provided	47,524	3.39	.57	.88
Participation and Rights	49,514	3.43	.54	.84
Therapists/Support Workers/Staff	49,794	3.61	.51	.92
Program Environment	47,782	3.56	.52	.89
Discharge/Leaving	16,764	3.45	.63	.90
Overall	63,874	3.53	.57	.87
Residential/Inpatient	11,790	3.17	.61	.85
<b>FAMILY</b>				
Access and Entry	2,786	3.48	.50	.83
Services Provided	1,638	3.45	.50	.91
Participation and Rights	1,878	3.50	.52	.85
Therapists/Support Workers/Staff	2,079	3.73	.46	.94
Program Environment	2,036	3.67	.49	.92
Discharge/Leaving	693	3.39	.68	.92
Overall	2,705	3.64	.51	.89
Residential/Inpatient	209	3.34	.59	.92

We compared mean scale scores by stage of treatment as a test of construct validity (Table 8). Statistical differences were assessed using one-way Analysis of Variance, a common approach for comparing averages across groups. There were statistically significant differences in mean scores for all domains, with scale scores being lower among those who

left early and (with the exception of the Overall domain) those in the “other” category, relative to those who had completed or were still attending treatment. Lower scores among those who leave treatment early, relative to those who complete it or are still attending is what one might expect and provides evidence of construct validity for the domain-specific scale scores.

Table 8: Descriptive statistics for stage of treatment by domain for clients with Own MH/SU/PG Concern<sup>11</sup>

Domain		Getting started	Left Early	In Progress	Completed	Other	Stat. Sig. <sup>12</sup>
Access and Entry	N	8546	445	28827	17979	2182	
	Mean	3.39	3.29	3.42	3.47	3.32	***
	SD	.54	.57	.52	.51	.63	
Services Provided	N	---	416	27795	17307	2006	
	Mean	---	3.19	3.37	3.45	3.22	***
	SD	---	.66	.56	.55	.71	
Participation and Rights	N	---	448	28917	18002	2147	
	Mean	---	3.24	3.40	3.49	3.28	***
	SD	---	.60	.53	.53	.65	
Therapists/ Support workers/Staff	N	---	451	29048	18101	2194	
	Mean	---	3.39	3.60	3.66	3.44	***
	SD	---	.62	.51	.49	.65	
Program Environment	N	---	434	27690	17580	2078	
	Mean	---	3.40	3.55	3.59	3.42	***
	SD	---	.58	.51	.50	.62	
Overall	N	8086	435	28463	17826	2145	
	Mean	3.46	3.21	3.53	3.62	3.37	***
	SD	.58	.72	.55	.54	.73	
Residential/ Inpatient	N	---	161	5677	5405	547	
	Mean	---	3.01	3.13	3.22	3.02	***
	SD	---	.60	.61	.60	.72	

We compared mean scale scores across gender identity in order to illustrate the potential of these domain-level scales for useful system-level research and evaluation (Table 9). Mean differences were statistically significant for all domains based on one-way Analysis of Variance with scale scores being lower in most domains for transgender and, particularly, other gender diverse people. This signals the need for studies examining the mechanisms

<sup>11</sup> The discharge/finishing treatment domain is excluded from this analysis since scale scores are only calculated for those who have completed treatment.

<sup>12</sup> \*\*\* connotes statistical significance at p<.001

underlying why gender diverse populations experience care in a less positive light, including a review of trans-inclusive policies and practices across treatment settings.

Table 9: Statistical comparison of domain scores by gender identity for clients with Own MH/SU/PG Concerns<sup>13, 14</sup>

Domain		Gender identity				Stat. Sig.
		Woman	Man	Trans-gender	Other Gender Diverse	
Access and Entry <sup>15</sup>	N	31351	30531	473	322	***
	Mean	3.42	3.42	3.35	3.24	
	SD	.54	.52	.54	.53	
Services Provided <sup>16</sup>	N	23700	22624	354	244	***
	Mean	3.41	3.38	3.32	3.22	
	SD	.57	.56	.64	.58	
Participation and Rights <sup>13</sup>	N	24676	23578	372	256	***
	Mean	3.44	3.41	3.39	3.22	
	SD	.54	.54	.57	.58	
Therapists/ Support workers/ Staff <sup>13</sup>	N	24903	23635	370	257	***
	Mean	3.64	3.58	3.57	3.40	
	SD	.50	.52	.57	.58	
Program Environment <sup>13</sup>	N	23687	22901	362	244	***
	Mean	3.58	3.54	3.55	3.36	
	SD	.51	.52	.54	.62	
Discharge/ leaving <sup>17</sup>	N	8273	8114	108	67	***
	Mean	3.45	3.45	3.24	3.12	
	SD	.64	.61	.69	.65	
Overall <sup>12</sup>	N	30766	29982	462	313	***
	Mean	3.56	3.50	3.38	3.45	
	SD	.56	.57	.68	.66	
Residential/ Inpatient <sup>18</sup>	N	5070	6446	89	58	***
	Mean	3.15	3.19	2.93	2.86	
	SD	.62	.61	.57	.73	

<sup>13</sup> Calculated for participants who responded to three or more items on each domain.

<sup>14</sup> \*\*\* connotes statistical significance at p<.001

<sup>15</sup> Excludes missing

<sup>16</sup> Includes completed, in progress, left early, other (excludes getting started and missing)

<sup>17</sup> includes completed and left early (excludes getting started, in progress, other, and missing)

<sup>18</sup> includes completed, in progress, left early, other (excludes getting started and missing) + residential only

## Discussion

Our purpose in this report has been to take advantage of the large and diverse database that has accrued because of provincial implementation of the OPOC-MHA tool. This work has been undertaken largely in response to queries posed during this implementation process about the statistical appropriateness and viability of working with the original domain-specific sets of items in an evaluation and quality improvement context.

Overall, the results suggest that it is statistically defensible to use the scale scores calculated for the eight individual domains that were constructed on a conceptual basis from an exhaustive review of literature and significant stakeholder input. These scale scores may have utility in a variety of research, evaluation, and quality improvement situations.

### Highlights of the results include:

- The percentage of items with missing data tended to range from 3%-5% for most domains but were somewhat higher for Discharge or Finishing the Program/Treatment (hovering around 10%) and between 20-30% for Residential/Inpatient (the latter for residential clients only).
- There was general consistency in the results across important sub-groups including non-residential/outpatient and residential/inpatient program participants, and for clients in treatment for their own mental health or substance use health concerns and those who identified themselves as a family member or other loved one.
- The average scale scores reflected the (expected) positive skew in responses. The average on the four-point scale ranged from a low of 3.17 for Residential/Inpatient Experience to a high of 3.62 for Therapists/Support Workers/Staff. The variability around these averages was quite low, but in an acceptable range for future statistical comparisons of mean scores across various groups. Attention would, however, need to be paid to sample size and statistical power, which can now be pre-estimated based on the variance in the data shown here.
- Internal consistency (Cronbach's alpha) was in the "very good" to "excellent" range for all domain-level scales (ranging from .83 for Access/Entry to Services to .92 for Therapists/Support Workers/Staff).
- When sub-groups were compared based on their stage of treatment, average scale scores were consistently lower for those who had left treatment early and those in

the “other” category, relative to those who had completed or were still in treatment. This pattern of scores provides support for construct validity.

Finally, an exploratory analysis comparing four sub-groups based on gender identity (man, woman, transgender, and other gender diverse) showed noteworthy, statistically significant differences across the groups with lower average scores across many domains for transgender or other gender diverse people. Analyses such as these prompt further exploration of this rich provincial data set.

### **Recommended applications:**

Based on these findings, we would recommend use of these domain-level scales in situations where the goal is to make:

- Point-in-time comparisons across broad program categories such as substance use, mental health, or integrated concurrent disorder programs; residential or non-residential programs; or by region of Ontario.
- Point-in-time comparisons across different sub-populations such as by age, gender, racial/ethnic diversity, language of preference, sexual orientation, mandated or not.
- Comparisons over time, for large groupings based on agreed upon provincial benchmarks.
- Comparisons over time associated with targeted quality improvement efforts such as those aimed at building culturally safe services, improving access or discharge planning processes, building stronger therapeutic relationships, or improving the nature and quality of the program environment.
- Analyses that assess the association between different domains of client perception of care and other measures of outcome that focus on quality of life, recovery, substance use, trauma, or psychological stress, for example.

### **Implications for OPOC- MHA content and implementation:**

With these OPOC-MHA results now in hand, and other analyses that could be undertaken with such a large and robust database, system planners and other stakeholders should consider the OPOC-MHA when planning or evaluating system-level or more targeted organizational level quality improvement initiatives.

To that end, we would also note the following implications of these analyses.

- Importantly, our analysis did not identify redundant items that could be removed to shorten the instrument and administration time. Each item remains useful for potential QI.
- Consideration should be given to reviewing the OPOC-MHA demographic items so as to ensure alignment with current standards in item design, in particular the categories for sexual orientation and gender identity (which currently include some conflation). To that end, consultation with gender experts, such as the team responsible for the TransPulse survey, may be warranted (<https://transpulsecanada.ca/> )
- The OPOC-MHA team may also wish to formalize or otherwise provide some guidance to program representatives to key categories of some of the OPOC-MHA items, especially with respect to “stage of treatment”; for example, the sub-categories “getting started “or “discharged but still receiving service”. The interpretation of these sub-categories is currently left open to individual programs and survey participants. While providing this flexibility in interpretation may facilitate implementation across very diverse programs, inconsistency in interpretation may have implications for quality improvement and evaluation. Guidelines or formal definitions could be provided in an implementation manual and training of program representatives.
- Further engagement with Indigenous scholars and program leaders is needed to develop standards for the use of self-identified Indigenous data generated by this tool. This work must be Indigenous led. It is needed to avoid the misuse of data, inappropriate comparisons, and potential harms related to how data are being organized and reported.
- Future work with the OPOC-MHA data will be facilitated by a crosswalk and recoding of the old LHIN regions into the newer Ontario Health regions, or perhaps even sub-regions.
- Routine updating of the provincial database will be required for the level of analyses undertaken herein. Relatedly, provision should be made for dedicated analytical and knowledge exchange resources to answer additional questions that can now be addressed with these and future OPOC-MHA data.
- Consideration should be given to designating responsibility to a provincial advisory group or some other relevant stakeholder-based body to advise on priorities for future analyses, for example, equity and gender-focused analyses that may help inform provincial policy in these areas.



- The reporting portal used by local program administrators to review and analyze their own data should be updated to calculate and make readily available all domain-specific scale scores so as to maximize the value of these new analyses for local evaluation and QI initiatives.
- Lastly, there may now be value in turning attention to the other tools in the OPOC-MHA “family” (e.g., crisis, housing) to explore possibilities for additional psychometric assessment of these newer versions.

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## Appendix A: OPOC-MHA – Registered client version

OPOC-MHA - Registered Client Version



Registered Client  
OPOC\_Oct2020.pdf

## Appendix B: OPOC-MHA Non-registered client version

POC-MHA Non-registered Client Version



Non-registered  
OPOC\_Oct2020.pdf

## Appendix C: Item-level analyses for OPOC-MHA Domains<sup>19</sup>

### Services Provided

**Table C1a.** Item distribution by sub-sample: Services Provided Domain

Q07	I had a good understanding of my treatment services and support plan
Q08	Staff and I agreed on my treatment services and support plan
Q09	Responses to my crises or urgent needs were provided when needed
Q10	I received clear information about my medication (i.e., side effects, purpose, etc.)
Q11	I was referred or had access to other services when needed, including alternative approaches (e.g., exercise, meditation, culturally appropriate approaches).

**Table C1b.** Item distribution by sub-sample: Services Provided Domain

	Own MH/SU/PG N=50462		Family N=2141		Full sample N=52604	
	n	%	n	%	n	%
<b>Q07</b>						
1	621	1.28	25	1.34	646	1.28
2	2842	5.85	82	4.40	2925	5.79
3	22621	46.53	806	43.26	23427	46.41
4	22528	46.34	950	50.99	23478	46.51
total valid	48612	100.00	1863	100.00	50476	100.00
missing/NA	1850	3.67	278	12.98	2128	4.05
Mean	3.38		3.44		3.38	
SD	0.66		0.64		0.65	
Median	3		4		3	
<b>Q08</b>						
1	621	1.29	21	1.19	642	1.29
2	2249	4.69	53	3.00	2302	4.63
3	20406	42.54	721	40.80	21128	42.48
4	24691	51.47	972	55.01	25663	51.60
total valid	47967	100.00	1767	100.00	49735	100.00
missing/NA	2495	4.94	374	17.47	2869	5.45
Mean	3.44		3.50		3.44	
SD	0.65		0.62		0.65	

<sup>19</sup> Details for the Access and Entry Domain are provided in the main body of the text. The following tables exclude program participants that reported “just getting started” in the program or whose data were “Missing/NA”.

	<b>Own MH/SU/PG N=50462</b>		<b>Family N=2141</b>		<b>Full sample N=52604</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
	Median	4		4		4
<b>Q09</b>						
1	856	1.92	33	2.05	889	1.93
2	2504	5.62	95	5.90	2599	5.63
3	17464	39.22	578	35.88	18043	39.11
4	23703	53.23	905	56.18	24608	53.33
total valid	44527	100.00	1611	100.00	46139	100.00
missing/NA	5935	11.76	530	24.75	6465	12.29
Mean	3.44		3.46		3.44	
SD	0.69		0.70		0.69	
Median	4		4		4	
<b>Q10</b>						
1	1042	2.89	28	3.84	1070	2.91
2	3492	9.69	55	7.54	3547	9.65
3	15095	41.89	278	38.13	15374	41.82
4	16404	45.52	368	50.48	16772	45.62
total valid	36033	100.00	729	100.00	36763	100.00
missing/NA	14429	28.59	1412	65.95	15841	30.11
Mean	3.30		3.35		3.30	
SD	0.76		0.78		0.76	
Median	3		4		3	
<b>Q11</b>						
1	1118	2.53	46	3.38	1164	2.56
2	3549	8.04	98	7.21	3647	8.02
3	18553	42.05	563	41.40	19117	42.03
4	20902	47.37	653	48.01	21555	47.39
total valid	44122	100.00	1360	100.00	45483	100.00
missing/NA	6340	12.56	781	36.48	7121	13.54
Mean	3.34		3.34		3.34	
SD	0.73		0.76		0.73	
Median	3		3		3	

## Participation and Rights

Table C2a. Individual items in the Participation and Rights Domain

Q12	I was involved as much as I wanted to be in decisions about my treatment services and supports.
Q13	I understood I could discuss options to participate in certain activities.
Q14	I was assured my personal information was kept confidential.
Q15	I felt comfortable asking questions about my treatment services and support, including medication.
Q16	If I had a serious concern, I would know how to make a formal complaint to this organization.

Table C2b. Item distribution by sub-sample: Participation and Rights Domain

	<b>OWN MH/SU/PG (N=49093)</b>		<b>Family</b>		<b>Full sample N=52604</b>	
	<b>Total N=50462</b>		<b>Total N=2141</b>		<b>n</b>	<b>%</b>
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
Q12						
1	745	1.53	25	1.42	770	1.52
2	2478	5.08	54	3.07	2532	5.01
3	19784	40.58	680	38.66	20465	40.52
4	25744	52.81	1000	56.85	26744	52.95
total valid	48751	100.00	1759	100.00	50511	100.00
missing/NA	1711	3.39	382	17.84	2093	3.98
Mean	3.45		3.51		3.45	
SD	0.66		0.63		0.66	
Median	4		4		4	
Q13						
1	631	1.32	23	1.30	654	1.32
2	2458	5.13	50	2.83	2508	5.05
3	20722	43.28	721	40.87	21443	43.19
4	24067	50.27	970	54.99	25038	50.44
total valid	47878	100.00	1764	100.00	49643	100.00
missing/NA	2584	5.12	377	17.61	2961	5.63
Mean	3.42		3.50		3.43	
SD	0.65		0.62		0.65	
Median	4		4		4	
Q14						



	<b>OWN MH/SU/PG (N=49093)</b>		<b>Family</b>		<b>Full sample</b>	
	<b>Total N=50462</b>		<b>Total N=2141</b>		<b>N=52604</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
1	582	1.18	27	1.35	609	1.18
2	1185	2.40	23	1.15	1208	2.35
3	14212	28.76	453	22.62	14665	28.52
4	33436	67.66	1500	74.89	34937	67.95
total valid	49415	100.00	2003	100.00	51419	100.00
missing/NA	1047	2.07	138	6.45	1185	2.25
Mean	3.63		3.71		3.63	
SD	0.59		0.56		0.59	
Median	4		4		4	
<b>Q15</b>						
1	647	1.34	22	1.30	669	1.34
2	2010	4.17	39	2.30	2049	4.11
3	16999	35.28	509	30.03	17508	35.10
4	28529	59.21	1125	66.37	29655	59.45
total valid	48185	100.00	1695	100.00	49881	100.00
missing/NA	2277	4.51	446	20.83	2723	5.18
Mean	3.52		3.61		3.52	
SD	0.64		0.60		0.64	
Median	4		4		4	
<b>Q16</b>						
1	2597	5.50	88	4.81	2685	5.47
2	8530	18.05	298	16.30	8828	17.98
3	17710	37.47	706	38.62	18417	37.52
4	18422	38.98	736	40.26	19158	39.03
total valid	47259	100.00	1828	100.00	49088	100.00
missing/NA	3203	6.35	313	14.62	3516	6.68
Mean	3.10		3.14		3.10	
SD	0.88		0.86		0.88	
Median	3		3		3	

Therapists/Support Workers/Staff

Table C3a. Individual items in the Therapists/Support Workers/Staff Domain

- Q17 I found staff knowledgeable and competent/qualified.
- Q18 I was treated with respect by program staff.  
Staff were sensitive to my cultural needs (e.g., religion, language, ethnic background, race).
- Q19 background, race).
- Q20 Staff believed I could change and grow.
- Q21 Staff understood and responded to my needs and concerns.

C3b. Item distribution by sub-sample: Therapists/Support Workers/Staff Domain

	OWN		Family		Full sample	
	MH/SU/PG (N=49093) N=50462		N=2141		N=52604	
	n	%	n	%	n	%
<b>Q17</b>						
1	491	0.99	25	1.19	516	0.99
2	1247	2.50	21	1.00	1268	2.44
3	15629	31.37	455	21.58	16084	30.98
4	32448	65.14	1607	76.23	34056	65.59
total valid	49815	100.00	2108	100.00	51924	100.00
missing/NA	647	1.28	33	1.54	680	1.29
Mean	3.61		3.73		3.61	
SD	0.59		0.54		0.59	
Median	4		4		4	
<b>Q18</b>						
1	494	0.99	18	0.86	512	0.99
2	1118	2.25	18	0.86	1136	2.19
3	13460	27.03	360	17.13	13820	26.63
4	34723	69.73	1706	81.16	36430	70.20
total valid	49795	100.00	2102	100.00	51898	100.00
missing/NA	667	1.32	39	1.82	706	1.34
Mean	3.66		3.79		3.66	
SD	0.57		0.49		0.57	
Median	4		4		4	
<b>Q19</b>						
1	479	1.21	16	1.07	495	1.21
2	907	2.29	18	1.21	925	2.25
3	13296	33.61	361	24.21	13657	33.27

	<b>OWN MH/SU/PG (N=49093) N=50462</b>		<b>Family N=2141</b>		<b>Full sample N=52604</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
	4	24875	62.88	1096	73.51	25972
total valid	39557	100.00	1491	100.00	41049	100.00
missing/NA	10905	21.61	650	30.36	11555	21.97
Mean	3.58		3.70		3.59	
SD	0.60		0.55		0.60	
Median	4		4		4	
<b>Q20</b>						
1	405	0.83	17	0.90	422	0.84
2	944	1.94	15	0.80	959	1.90
3	14650	30.12	448	23.82	15098	29.89
4	32635	67.10	1401	74.48	34037	67.38
total valid	48634	100.00	1881	100.00	50516	100.00
missing/NA	1828	3.62	260	12.14	2088	3.97
Mean	3.63		3.72		3.64	
SD	0.57		0.52		0.56	
Median	4		4		4	
<b>Q21</b>						
1	573	1.16	21	1.02	594	1.16
2	1665	3.37	33	1.61	1698	3.30
3	16055	32.52	489	23.81	16544	32.17
4	31076	62.95	1511	73.56	32588	63.37
total valid	49369	100.00	2054	100.00	51424	100.00
missing/NA	1093	2.17	87	4.06	1180	2.24
Mean	3.57		3.70		3.58	
SD	0.62		0.55		0.62	
Median	4		4		4	

## Program Environment

Table C4a Individual items in the Program Environment Domain

- Q22 Overall, I found the facility welcoming, non-discriminating, and comfortable (e.g., entrance, waiting room, decor, posters, my room if applicable).
- Q23 Overall, I found the program space clean and well maintained (e.g., meeting space, bathroom, and my room if applicable).
- Q24 I was given private space when discussing personal issues with staff.
- Q25 I felt safe in the facility at all times.

Q26 The program accommodated my needs related to mobility, hearing, vision, and learning, etc.

Table C4b. Item distribution by sub-sample: Program Environment Domain

	<b>OWN</b>		<b>Family</b>		<b>Full sample</b>	
	<b>N=50462</b>		<b>N=2141</b>		<b>N=52604</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Q22</b>						
1	598	1.26	22	1.08	620	1.25
2	1531	3.21	46	2.25	1577	3.17
3	17652	37.05	616	30.20	18268	36.77
4	27863	58.48	1356	66.47	29220	58.81
total valid	47644	100.00	2040	100.00	49685	100.00
missing/NA	2818	5.58	101	4.72	2919	5.55
Mean	3.53		3.62		3.53	
SD	0.62		0.59		0.62	
Median	4		4		4	
<b>Q23</b>						
1	513	1.08	22	1.08	535	1.08
2	1431	3.02	24	1.18	1455	2.94
3	16808	35.42	575	28.24	17384	35.13
4	28701	60.48	1415	69.50	30116	60.85
total valid	47453	100.00	2036	100.00	49490	100.00
missing/NA	3009	5.96	105	4.90	3114	5.92
Mean	3.55		3.66		3.56	
SD	0.61		0.56		0.61	
Median	4		4		4	
<b>Q24</b>						
1	400	0.86	17	0.93	417	0.86
2	1084	2.32	18	0.98	1102	2.27
3	14638	31.32	445	24.33	15083	31.06
4	30616	65.51	1349	73.76	31966	65.82
total valid	46738	100.00	1829	100.00	48568	100.00
missing/NA	3724	7.38	312	14.57	4036	7.67
Mean	3.61		3.71		3.62	
SD	0.58		0.53		0.58	
Median	4		4		4	
<b>Q25</b>						
1	753	1.58	22	1.08	775	1.56

	<b>OWN MH/SU/PG N=50462</b>		<b>Family N=2141</b>		<b>Full sample N=52604</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
2	2307	4.85	38	1.87	2345	4.73
3	15241	32.04	458	22.54	15700	31.65
4	29273	61.53	1514	74.51	30787	62.06
total valid	47574	100.00	2032	100.00	49607	100.00
missing/NA	2888	5.72	109	5.09	2997	5.70
Mean	3.54		3.70		3.54	
SD	0.66		0.56		0.66	
Median	4		4		4	
<b>Q26</b>						
1	408	1.12	19	1.50	427	1.13
2	897	2.45	18	1.42	915	2.42
3	13522	36.99	393	31.04	13915	36.79
4	21727	59.44	836	66.03	22564	59.66
total valid	36554	100.00	1266	100.00	37821	100.00
missing/NA	13908	27.56	875	40.87	14783	28.10
Mean	3.55		3.62		3.55	
SD	0.60		0.60		0.60	
Median	4		4		4	

## Discharge/Finishing Treatment

Table C5a. Individual items in the Discharge/Finishing Treatment Domain

- Q27 Staff helped me develop a plan for when I finish the program/treatment.
- Q28 I have a plan that will meet my needs after I finish the program/treatment.  
Staff helped me identify where to get support after I finish the
- Q29 program/treatment.

Table C5b. Item distribution by sub-sample: Discharge/Finishing Treatment Domain

	<b>OWN MH/SU/PG N=18766</b>		<b>Family N=921</b>		<b>Full sample N=19687</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Q27</b>						
1	301	1.81	18	2.69	319	1.84
2	1030	6.19	44	6.59	1074	6.21
3	6238	37.50	286	42.81	6524	37.70
4	9066	54.50	320	47.90	9386	54.24

	<b>OWN MH/SU/PG N=18766</b>		<b>Family N=921</b>		<b>Full sample N=19687</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
total valid	16635	100.00	668	100.00	17303	100.00
missing/NA	2131	11.36	253	27.47	2384	12.11
Mean	3.44		3.36		3.44	
SD	0.69		0.72		0.69	
Median	4		3		4	
<b>Q28</b>						
1	293	1.75	15	2.18	308	1.77
2	1018	6.08	54	7.84	1072	6.15
3	6510	38.90	284	41.22	6794	38.99
4	8913	53.26	336	48.77	9249	53.09
total valid	16734	100.00	689	100.00	17423	100.00
missing/NA	2032	10.83	232	25.19	2264	11.50
Mean	3.43		3.37		3.43	
SD	0.69		0.72		0.69	
Median	4		3		4	
<b>Q29</b>						
1	294	1.77	20	2.76	314	1.81
2	1036	6.23	43	5.93	1079	6.22
3	6048	36.37	254	35.03	6302	36.31
4	9252	55.63	408	56.28	9660	55.66
total valid	16630	100.00	725	100.00	17355	100.00
missing/NA	2136	11.38	196	21.28	2332	11.85
Mean	3.46		3.45		3.46	
SD	0.69		0.73		0.69	
Median	4		4		4	

## Overall

Table C6a Individual items in the Overall Domain

- Q30 The services I have received have helped me deal more effectively with my life's challenges.
- Q31 I think the services provided here are of high quality.
- Q32 If a friend were in need of similar help I would recommend this service.

Table C6b. Item distribution by sub-sample: Overall domain

	<b>OWN MH/SU/PG (N=49093) N=67589</b>		<b>Family N=2881</b>		<b>Full sample N=70476</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Q30</b>						
1	892	1.43	25	0.95	917	1.41
2	2566	4.11	68	2.59	2634	4.05
3	26517	42.47	983	37.39	27500	42.26
4	32468	52.00	1553	59.07	34022	52.28
total valid	62443	100.00	2629	100.00	65073	100.00
missing/NA	5146	7.61	252	8.75	5403	7.67
Mean	3.45		3.55		3.45	
SD	0.64		0.60		0.64	
Median	4		4		4	
<b>Q31</b>						
1	834	1.31	28	1.03	862	1.30
2	2343	3.69	48	1.76	2391	3.61
3	22398	35.28	776	28.42	23174	35.00
4	37905	59.71	1878	68.79	39784	60.09
total valid	63480	100.00	2730	100.00	66211	100.00
missing/NA	4109	6.08	151	5.24	4265	6.05
Mean	3.53		3.65		3.54	
SD	0.63		0.57		0.63	
Median	4		4		4	
<b>Q32</b>						
1	1078	1.70	29	1.08	1107	1.68
2	1631	2.57	30	1.12	1661	2.51
3	18044	28.48	587	21.84	18631	28.21
4	42612	67.25	2042	75.97	44655	67.60
total valid	63365	100.00	2688	100.00	66054	100.00
missing/NA	4224	6.25	193	6.70	4422	6.27
Mean	3.61		3.73		3.62	
SD	0.63		0.53		0.62	
Median	4		4		4	

## Residential/Inpatient

Table C7a. Individual items in the Residential/Inpatient Domain

Q33 There were enough activities of interest to me during free time.

- Rules or guidelines concerning my contact with my family and friends were appropriate to my needs.  
 Q34  
 The layout of the facility was suitable for visits with my family and friends (e.g., privacy, comfort level).  
 Q35  
 The area in and around my room was comfortable for sleeping (e.g., noise level, lighting).  
 Q36  
 The quality of the food was acceptable.  
 Q37  
 My special dietary needs were met (e.g., diabetic, halal, vegetarian, kosher).  
 Q38

Table C7b. Item distribution by sub-sample: Residential /Inpatient Domain

	<b>OWN MH/SU/PG (N=49093) N=12759</b>		<b>FAMILY N=260</b>		<b>Full sample N=13020</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>Q33</b>						
1	663	5.63	15	7.04	678	5.65
2	2438	20.69	25	11.74	2463	20.53
3	5242	44.48	101	47.42	5344	44.54
4	3442	29.21	72	33.80	3514	29.29
total valid	11785	100.00	213	100.00	11999	100.00
missing/NA	974	7.63	47	18.08	1021	7.84
Mean	2.97		3.08		2.97	
SD	0.85		0.86		0.85	
Median	3		3		3	
<b>Q34</b>						
1	318	2.76	4	1.86	322	2.74
2	985	8.55	6	2.79	991	8.45
3	5426	47.12	102	47.44	5528	47.12
4	4787	41.57	103	47.91	4891	41.69
total valid	11516	100.00	215	100.00	11732	100.00
missing/NA	1243	9.74	45	17.31	1288	9.89
Mean	3.27		3.41		3.28	
SD	0.73		0.64		0.73	
Median	3		3		3	
<b>Q35</b>						
1	413	4.05	7	4.55	420	4.06
2	1250	12.25	5	3.25	1256	12.13
3	4719	46.26	72	46.75	4791	46.26
4	3820	37.44	70	45.45	3890	37.56
total valid	10202	100.00	154	100.00	10357	100.00



	<b>OWN MH/SU/PG (N=49093) N=12759</b>		<b>FAMILY N=260</b>		<b>Full sample N=13020</b>	
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
missing/NA	2557	20.04	106	40.77	2663	20.45
Mean	3.17		3.33		3.17	
SD	0.79		0.75		0.79	
Median	3		3		3	
<b>Q36</b>						
1	536	4.65	5	2.46	541	4.61
2	1396	12.12	11	5.42	1408	12.01
3	5086	44.15	88	43.35	5174	44.14
4	4501	39.07	99	48.77	4600	39.24
total valid	11519	100.00	203	100.00	11723	100.00
missing/NA	1240	9.72	57	21.92	1297	9.96
Mean	3.17		3.38		3.18	
SD	0.82		0.70		0.82	
Median	3		3		3	
<b>Q37</b>						
1	691	6.06	7	3.54	698	6.02
2	1169	10.25	9	4.55	1178	10.16
3	4804	42.14	81	40.91	4886	42.12
4	4736	41.54	101	51.01	4837	41.70
total valid	11400	100.00	198	100.00	11599	100.00
missing/NA	1359	10.65	62	23.85	1421	10.91
Mean	3.19		3.39		3.20	
SD	0.85		0.74		0.85	
Median	3		4		3	
<b>Q38</b>						
1	358	4.64	7	5.43	365	4.65
2	608	7.88	8	6.20	616	7.85
3	3260	42.24	60	46.51	3320	42.31
4	3491	45.24	54	41.86	3546	45.19
total valid	7717	100.00	129	100.00	7847	100.00
missing/NA	5042	39.52	131	50.38	5173	39.73
Mean	3.28		3.24		3.28	
SD	0.80		0.80		0.80	
Median	3		3		3	

## Appendix D: Item-correlations within each OPOC-MHA Domain

### Access and Entry

**Table D1a.** Correlation matrix for Own MH/SU/PG: Access and Entry Domain (pairwise deletion)

	Q01	Q02	Q03	Q04	Q05	Q06
Q01	1					
Q02	0.6168	1				
Q03	0.3831	0.4415	1			
Q04	0.4445	0.4359	0.4610	1		
Q05	0.4223	0.4457	0.4251	0.5805	1	
Q06	0.4267	0.4686	0.4234	0.5241	0.5996	1

**Table D1b.** Correlation matrix for Family: Access and Entry Domain (pairwise deletion)

	Q01	Q02	Q03	Q04	Q05	Q06
Q01	1					
Q02	0.6610	1				
Q03	0.3777	0.4360	1			
Q04	0.3781	0.4072	0.4350	1		
Q05	0.3684	0.3950	0.3761	0.6332	1	
Q06	0.4335	0.4507	0.3638	0.5295	0.6141	1

### Services Provided

**Table D2a.** Correlation matrix for Own MH/SU/PG: Services Provided Domain (pairwise deletion)

	Q07	Q08	Q09	Q10	Q11
Q07	1				
Q08	0.7248	1			
Q09	0.5924	0.6223	1		
Q10	0.5559	0.5519	0.5467	1	
Q11	0.5479	0.5550	0.5606	0.5425	1

**Table D2b.** Correlation matrix for Family: **Services Provided** Domain (pairwise deletion)

	Q07	Q08	Q09	Q10	Q11
Q07	1				
Q08	0.7541	1			
Q09	0.6192	0.6059	1		
Q10	0.6742	0.6290	0.6123	1	
Q11	0.6283	0.6039	0.6290	0.6468	1

## Participation and Rights

**Table D3a.** Correlation matrix for Own MH/SU/PG: Participation and Rights Domain (pairwise deletion)

	Q12	Q13	Q14	Q15	Q16
Q12	1				
Q13	0.6712	1			
Q14	0.5647	0.5421	1		
Q15	0.6268	0.6007	0.6099	1	
Q16	0.4275	0.4484	0.3723	0.4497	1

**Table D3b.** Correlation matrix for Family: Participation and Rights Domain (pairwise deletion)

	Q12	Q13	Q14	Q15	Q16
Q12	1				
Q13	0.7486	1			
Q14	0.5994	0.5830	1		
Q15	0.6742	0.6705	0.6680	1	
Q16	0.4205	0.4185	0.3886	0.4384	1

## Therapists/Support Workers/Staff

**Table D4a.** Correlation matrix for Own MH/SU/PG: Therapists/Support Workers/Staff Domain (pairwise deletion)

	Q17	Q18	Q19	Q20	Q21
Q17	1				
Q18	0.7443	1			
Q19	0.6674	0.6988	1		
Q20	0.6348	0.6604	0.6738	1	
Q21	0.6996	0.7044	0.6868	0.7251	1

**Table D4b.** Correlation matrix for Family: Therapists/Support Workers/Staff Domain (pairwise deletion)

	Q17	Q18	Q19	Q20	Q21
Q17	1				
Q18	0.7738	1			
Q19	0.7047	0.7703	1		
Q20	0.7107	0.6968	0.7443	1	
Q21	0.7630	0.7320	0.7419	0.7889	1

## Program Environment

**Table D5a.** Correlation matrix for Own MH/SU/PG: **Program Environment** Domain (pairwise deletion)

	Q22	Q23	Q24	Q25	Q26
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<b>Q22</b>	1				
<b>Q23</b>	0.6671	1			
<b>Q24</b>	0.6109	0.6145	1		
<b>Q25</b>	0.6085	0.5974	0.6275	1	
<b>Q26</b>	0.6327	0.6118	0.6706	0.6383	1

**Table D5b.** Correlation matrix for Family: **Program Environment** Domain (pairwise deletion)

	<b>Q22</b>	<b>Q23</b>	<b>Q24</b>	<b>Q25</b>	<b>Q26</b>
<b>Q22</b>	1				
<b>Q23</b>	0.7579	1			
<b>Q24</b>	0.6257	0.6831	1		
<b>Q25</b>	0.6561	0.6831	0.7008	1	
<b>Q26</b>	0.6848	0.6808	0.7476	0.7145	1

## Discharge/Finishing Treatment

**Table D6a.** Correlation matrix for Own MH/SU/PG: Discharge/Finishing Treatment Domain (pairwise deletion)

	<b>Q27</b>	<b>Q28</b>	<b>Q29</b>
<b>Q27</b>	1		
<b>Q28</b>	0.7592	1	
<b>Q29</b>	0.7525	0.7223	1

**Table D6b.** Correlation matrix for Family: Discharge/Finishing Treatment Domain (pairwise deletion)

	<b>Q27</b>	<b>Q28</b>	<b>Q29</b>
<b>Q27</b>	1		
<b>Q28</b>	0.8375	1	
<b>Q29</b>	0.8184	0.7508	1

## Overall

**Table D7a.** Correlation matrix for Own MH/SU/PG: Overall Domain (pairwise deletion)

	<b>Q30</b>	<b>Q31</b>	<b>Q32</b>
<b>Q30</b>	1		
<b>Q31</b>	0.7010	1	
<b>Q32</b>	0.6462	0.7586	1

**Table D7a.** Correlation matrix for Family: Overall Domain (pairwise deletion)

	<b>Q30</b>	<b>Q31</b>	<b>Q32</b>
<b>Q30</b>	1		

<b>Q31</b>	0.7282	1
<b>Q32</b>	0.6744	0.7798

## Residential/Inpatient

**Table D8a.** Correlation matrix for Own MH/SU/PG: Residential Domain (pairwise deletion)

	<b>Q33</b>	<b>Q34</b>	<b>Q35</b>	<b>Q36</b>	<b>Q37</b>	<b>Q38</b>
<b>Q33</b>	1					
<b>Q34</b>	0.5176	1				
<b>Q35</b>	0.5350	0.6046	1			
<b>Q36</b>	0.4788	0.4852	0.5420	1		
<b>Q37</b>	0.4231	0.3969	0.4341	0.4906	1	
<b>Q38</b>	0.4430	0.4614	0.4919	0.4706	0.6440	1

**Table D8b.** Correlation matrix for Family: Residential Domain (pairwise deletion)

	<b>Q33</b>	<b>Q34</b>	<b>Q35</b>	<b>Q36</b>	<b>Q37</b>	<b>Q38</b>
<b>Q33</b>	1					
<b>Q34</b>	0.6259	1				
<b>Q35</b>	0.6794	0.7234	1			
<b>Q36</b>	0.5321	0.6693	0.7921	1		
<b>Q37</b>	0.5426	0.5576	0.5765	0.5588	1	
<b>Q38</b>	0.5914	0.6020	0.6614	0.6054	0.7947	1