Gathering youth perspectives from an Integrated Youth Service Initiative: Satisfaction and beyond at Aire ouverte

Flavie Couillard (261178871)

Department of Psychology, McGill University

PSYC 488: Independent Honours Research 3

Dr. Srividya Iyer

14 April 2026

Abstract

Routine self-report data can be used to improve clinical services at both the individual and systemic levels. The effectiveness of this process depends on both the quality of the questionnaires used and service user engagement in completing them. In Quebec, the network of Integrated Youth Services, which provides mental, physical, sexual health and social services to youth, is called Aire ouverte. These services prioritise gathering youth perspectives, including through self-report measures, but implementation of these measures has faced challenges in the quality of measures a youth engagement. This mixed-methods study aimed to improve the quality of youth self-report data collection at Aire ouverte by addressing two questions: What is the current state of data collection at Aire ouverte, and what are youth perspectives on how it should be done? First, I conducted a document analysis of eight locally developed questionnaires across Aire ouverte sites, evaluating them against psychometric recommendations for item design and response options. Results indicated partial adherence to psychometric standards, with variability observed in item clarity, Likert-scale construction, and response format consistency. Further, four young service users were engaged in a Nominal Group Technique workshop to co-develop recommendations for collecting data from their perspectives. Data were analysed using reflexive thematic analysis alongside vote prioritisation. Youth prioritised accessible and anonymous feedback tools, youth-centred survey design, flexible timing of questionnaire administration, and relational approaches to feedback such as discussions with peer supporters. Together, findings highlight a gap between current measurement design and the conditions necessary for meaningful youth engagement in data collection.

Gathering youth perspectives at an Integrated Youth Service: Satisfaction and beyond at Aire ouverte

Concerns about youth mental health are a growing issue in Canada. The Canadian Health Survey on Children and Youth shows that youth mental health has declined significantly between 2019 and 2023, with rates of poor self-rated mental health doubling. The deterioration is most evident among girls and older teens, many of whom continue to struggle over time (Government of Canada, 2024a, 2024b, 2024c). Adolescence is a crucial period for mental health, as most mental illnesses first emerge during these years (Solmi et al., 2022). Because early onset often shapes long-term outcomes, timely diagnosis and treatment during youth are essential to reducing the risk of persistent poor health, poverty, and unemployment later in life (Canadian Medical Association & Canadian Psychiatric Association, 2016). This is also the period of transition from the child health care system to the adult health care system. The separation between child-adolescent and adult mental health services often leaves youth in limbo at age 18, as rigid transitions fail to meet the needs of emerging or ongoing mental health issues (Malla et al., 2018). As such, this transition further delays access to care for many youth. This, in turn, results in worse outcomes for the individuals (Malla et al., 2018). Mental health care for those aged 12–25 years must be tailored to their unique developmental, social, and cultural needs, as these shape how problems appear and how interventions should be implemented (McGorry et al., 2024).

A learning health system (LHS) is a dynamic, data-driven approach to healthcare where clinical practice and research continuously inform and improve each other (Institute of Medicine (US) Roundtable on Evidence-Based Medicine, 2007). In this model, data generated from everyday clinical encounters are analysed rapidly to produce new evidence, which is then integrated back into practice to improve care quality, population health, and system performance. LHSs rely on digital infrastructure such as electronic health records to

aggregate, analyse, and share data across institutions to support real-time research, public health monitoring, and clinical decision-making (Deans et al., 2018). This system enables faster translation of discoveries and advances in knowledge into practice, reducing the long gap between evidence and practice (often cited as being 17 years) (Friedman et al., 2010) by embedding learning directly within care delivery. Key perspectives are often underrepresented in LHSs, including those of youth and other lived-experience groups, which can limit the relevance, equity, and effectiveness of data-driven improvements by relying on incomplete information (Bailey et al., 2024). Recent evidence demonstrates that engaging youth in health research improves the relevance by ensuring that study questions, methods, and outcomes reflect the lived experiences and priorities of youth (Bailey et al., 2024). Youth engagement enhances the impact of interventions and helps to address unique developmental, social, and contextual factors that adult-centred research may overlook.

In response to fragmented systems and rising youth mental health needs, many regions are now developing integrated, youth-friendly service models. Integrated youth services (IYS) in Canada aim to ensure that youth (12–25-year-olds) have equitable access to a range of services they may require. This model combines many forms of care, such as primary care, mental health, sexual health and substance use health services, among others (Government of Canada, 2022). Core principles of these initiatives include timely access and early intervention, youth and family engagement, accessible and youth-oriented services, evidence-based practices, and collaboration across partners (Settipani et al., 2019). These services are proliferating around the world, with various models, such as headspace in Australia (Hilferty et al., 2015) and Jigsaw in Ireland (O'Keeffe et al., 2015). These programs have been shown to improve access to care for youth and directly address the issue of the transition between child health care and adult health care (Hilferty et al., 2015; O'Keeffe et al., 2015). From a youth perspective, services that offer rapid, flexible access to diverse

supports such as peer support, e-health, and evening or weekend options are priorities (Henderson et al., 2022).

Quebec's IYS model is known as Aire ouverte, which launched in 2018, with three demonstration sites. It is implemented by the *"Ministère de la Santé et des Services Sociaux"* (MSSS) and *Santé Québec*. It expanded rapidly across Quebec, with more than 30 main sites and 14 satellite locations established by 2023, reflecting major provincial investment in youth services. The program provides integrated, multidisciplinary care for youth aged 12–25, addressing mental health, physical health, education/employment, and sexual health needs in a single accessible setting. Its growing reach is evident in-service use, with over 11,000 youth accessing care in 2024–2025, highlighting its significant role in improving access to youth-focused support (K. MacDonald, personal communication, 11 March 2026). Youth described Aire ouverte as a highly accessible and youth-friendly service, appreciating the ease of walk-in appointments, extended opening hours, and the absence of waiting lists that often characterise traditional mental health systems (Demers et al., 2024). They expressed high overall satisfaction, viewing Aire ouverte as a supportive and reassuring entry point into care, even when minor administrative tasks, like initial paperwork, were required (Demers et al., 2024). Key challenges with the implementation of Aire ouverte, such as power asymmetries, emotional fatigue among clinicians, and difficulties in youth engagement, highlight the initial complexities of co-creating youth mental health services (Bentayeb et al., 2022). These models emphasise core components such as youth engagement, accessibility, and continuous learning and improvement through research and measurement (Canada's Federation of Integrated Youth Services Network, 2022).

Literature Review

The first attempts to measure outcomes in psychological interventions originated in the 1950s, when rating scales and diagnostic interviews were developed and used to track symptom severity and treatment response in clinical services and in research, especially clinical trials (Aboraya et al., 2018). Despite these earlier practices, the term measurement-based care (MBC) was first coined by Trivedi in 2006, who defined it as the evaluation of symptoms and side effects administered by clinicians at every visit, using a combination of clinician-administered assessments and patient self-report measures, alongside a manual describing when and how to modify treatment based on the collected measures (Trivedi et al., 2006). Trivedi and colleagues concluded that routine depressive symptom and side-effect ratings were feasible in real-world clinical settings and can be used to monitor progress, guide treatment adjustments, and inform clinical decision-making (Trivedi et al., 2006).

The definition has broadened and can now be thought of as the systematic use of validated clinical measurement instruments that involves the routine collection of patient-reported data, such as symptom severity, functioning, quality of life, and readiness to change (Aboraya et al., 2018; Fortney et al., 2017; Scott & Lewis, 2015) and the use of assessments in decision making. These data are used to inform, and guide individualised clinical decision-making, monitor treatment progress, identify non-response or deterioration, and adjust interventions accordingly (Aboraya et al., 2018).

MBC offers numerous advantages in mental health treatment across interest holders. When implemented frequently and in a timely manner, MBC significantly improves clinical outcomes for patients by enhancing the precision and consistency of symptom tracking (Boswell et al., 2023; Fortney et al., 2017). Meta-analyses and controlled trials have shown that MBC leads to statistically significant reductions in symptoms (Bickman et al., 2011;

Boswell et al., 2023). Expected recovery trajectories are empirically derived, algorithm-based predictions of symptom change that indicate whether a client's progress is on track for a positive treatment response (Lambert, 2010b). Clinical support tools build on expected recovery trajectories by providing structured, algorithm-informed guidance for additional assessment and treatment planning when clients deviate from expected recovery patterns(Lambert, 2010a). Importantly, studies that incorporated clinical support tools alongside expected recovery trajectories yielded stronger outcomes, suggesting that the type of feedback provided plays a critical role in MBC's effectiveness (Boswell et al., 2023).

MBC has been shown to strengthen the therapeutic relationship between clinicians and patients (Aboraya et al., 2018; Boswell et al., 2023) by empowering patients to communicate their experiences more clearly (Lewis et al., 2019). MBC fosters active engagement in patients' treatment by helping them better understand their symptoms (Lewis et al., 2019). It supports evidence-based psychotherapies by providing actionable data for clinicians that guides intervention adjustments (Fortney et al., 2017). It enables treatment-to-target approaches, which involve setting specific clinical goals such as symptom remission or functional recovery and systematically adjusting treatment based on regular assessments until those goals are achieved (Aboraya et al., 2018). When relying solely on clinical judgment, providers detect symptom deterioration in just 21.4% of affected patients (Fortney et al., 2017; C. Kaplan et al., 2023). MBC helps clinicians identify residual symptoms that may otherwise go unnoticed, thereby reducing the risk of relapse and promoting full recovery (Fortney et al., 2017). At the organisational level, MBC can enable data-driven quality improvement initiatives, support accreditation and insurance reporting requirements, and contribute to a population health approach by aggregating data across providers and programs to inform system-wide strategies (Lewis et al., 2019). These benefits extend across diverse

settings and populations, reinforcing MBC's utility as a transdiagnostic and transtheoretical approach to care.

Barriers to Measurement Based Care

Despite its benefits, MBC remains underutilised due to a range of barriers at the patient, provider, and organisational levels. Studies have shown that in the U.S.A., relatively few psychiatrists (17.9%) and psychologists (11.1%) routinely use MBC in their practice (Fortney et al., 2017; Lewis et al., 2019). Patients may perceive standardised measures as burdensome or irrelevant, especially when results are not discussed or incorporated into treatment (Boswell et al., 2023; Lewis et al., 2019). Approaches to MBC that rely solely on one-time screenings or infrequent assessments have been shown to be ineffective in improving treatment outcomes (Scott & Lewis, 2015). Providers often cite time constraints, as well as scepticism about the utility of MBC compared to clinical judgment (Lewis et al., 2019), despite evidence to the contrary (Fortney et al., 2017; C. Kaplan et al., 2023). Organisational challenges include the lack of integrated electronic health records (Fortney et al., 2017; Lewis et al., 2019), limited resources for training, high staff turnover, and insufficient leadership support (Lewis et al., 2019). These multifaceted obstacles underscore the need for tailored implementation strategies and systemic support to facilitate MBC integration into routine practice.

Research on the implementation of MBC has predominantly centred on clinicians' perspectives, with comparatively little attention given to young service users (Dey et al., 2025). Among studies that do include patient perspectives, adults are typically the focus, while youth are even further underrepresented (Parikh et al., 2020). Understanding youth perspectives, separate from adults, is particularly important as Zhang et al. (2024) found statistically significant differences between adolescents and adults in their acceptance of

MBC across all questionnaire items, suggesting that engagement with MBC varies meaningfully by age group. Notably, adolescents' acceptance of both MBC and electronic MBC was predicted only by their confidence in accessing mental health information online, which positively influenced their openness to these tools (Zhang et al., 2024). However, adolescents also demonstrated the lowest overall levels of acceptance and confidence in electronic MBC (Zhang et al., 2024). Similarly, Wolpert et al. (2016) underscore that youth often perceive outcome measures as intrusive or confusing, particularly when introduced early in treatment, and express concerns about stigma, emotional safety, and the impact on therapeutic relationships. Together, these findings highlight the need to actively consult youth in the design and implementation of MBC.

Beyond acceptance, evidence on MBC's impact on treatment outcomes among youth remains limited but promising. Bickman et al. (2011) conducted the first randomised controlled trial examining the effects of feedback to clinicians on youth outcomes. Youth whose clinicians received weekly feedback on treatment progress showed significantly faster improvement in symptoms and functioning compared to those whose clinicians received feedback only every 90 days (Bickman et al., 2011). These findings underscore the value of MBC in enhancing treatment effectiveness and support the integration of feedback systems into routine clinical practice.

However, for such improvements to occur, youth must be willing to engage with and accept the use of MBC tools and measures, as their participation is integral to obtaining accurate feedback. In contrast, Bergman et al. (2018) conducted a systematic review of six randomised control trials (n = 1097) evaluating client feedback in psychological therapy for children and adolescents. They found very low evidence for most outcomes due to high risk of bias, serious inconsistency, and limited data (Bergman et al., 2018). The authors concluded that there is insufficient evidence to support the use of client feedback in youth therapy and

emphasised the need for more rigorous, youth-inclusive research (Bergman et al., 2018). Similarly, Parikh et al. (2020) highlight the heterogeneity of studies on MBC in youth mental health, which limits the ability to conduct conclusive meta-analyses. Despite this, individual studies suggest MBC improves outcomes when implemented rigorously, measures administered at every session and results shared with clinicians and patients (Parikh et al., 2020). While evidence is promising, particularly in individual therapy, gaps remain in group therapy and medication management. These limitations underscore the need for further research to standardise implementation and evaluate effectiveness across diverse youth settings. Incorporating their perspectives could enhance the relevance, accessibility, acceptance, and utility of MBC practices.

Psychometric recommendations

Best practices for constructing measures emphasise a systematic, theory-driven process to ensure reliable and valid measurement. While incorporating youth perspectives can strengthen measurement-based care, it is equally critical that the measures themselves are of high quality, as the utility of MBC depends on the accuracy and reliability of the data collected. Development should begin with a clear conceptual definition of the construct and a review of existing instruments to determine whether a new measure is necessary (Kaplan & Saccuzzo, 2013). Researchers then generate an overinclusive pool of items informed by theory and qualitative sources (e.g., literature, interviews, or focus groups), ensuring items are clearly worded, express one idea, and avoid ambiguity or double-barrelled phrasing (Boateng et al., 2018; Rosellini & Brown, 2021). Careful attention should also be given to response formats, which typically include five to seven ordered categories that balance reliability and ease of responding (Kusmaryono et al., 2022). Evidence supports using a small number of well-targeted open-ended items, often 1–3, including a final “any other comments?” question, balancing the need for rich insights against respondent burden and the

realistic ability to analyse the text (O'Cathain & Thomas, 2004; Riiskjaer et al., 2012). After expert review and cognitive testing with members of the target population, scales should be pilot tested and evaluated using psychometric methods (e.g., exploratory and confirmatory factor analysis) to assess dimensionality, reliability, and validity (Kaplan & Saccuzzo, 2013). Clear response labelling, appropriate scale polarity, and logical ordering of options further help reduce response bias and improve interpretability (DeVellis & Thorpe, 2022; Kaplan & Saccuzzo, 2013).

Study purpose and rationale

MBC relies on the routine collection of self-report data to inform clinical decision-making, monitor treatment progress, and support continuous service improvement. Within LHS, these data function as a core feedback mechanism through which services iteratively refine care practices. For IYS models such as Aire ouverte, which emphasise youth-centred design, the effectiveness of this feedback loop depends on two key conditions: the use of appropriate, psychometrically sound measures, and meaningful, sustained youth participation in completing them.

This multimethod study aimed to examine the current state of data collection across Aire ouverte sites and explore youth perspectives on how this process should be carried out. By investigating existing practices and youth preferences, this research seeks to increase youth engagement in MBC and support the integration of their voices into service design and evaluation.

However, challenges exist in both areas. Aire ouverte sites frequently employ locally developed questionnaires, yet the extent to which these measures align with psychometric recommendations is often unclear. At the same time, even well-designed measures cannot support MBC if youth engagement is inconsistent, i.e. few youth fill out these measures,

limiting the completeness and usefulness of the data collected. Youth voices are foundational to system learning and quality improvement efforts.

To address these complementary challenges, the present research involved two parts conducted in collaboration with Aire ouverte. A document analysis of the locally developed questionnaires currently used within the service was conducted, and the measures were compared with psychometric recommendations to better understand their strengths and limitations. Next, youth were engaged in a structured, participatory process to co-develop a list of recommendations to improve the process of collecting data from youth perspectives. This included a Nominal Group Technique (NGT) workshop to achieve consensus. Together, this study addresses both the quality of the measures used and the conditions necessary for meaningful youth engagement with them, contributing practical guidance for strengthening the implementation of MBC within integrated youth services.

The resulting list of recommendations represents a concrete implementation product that can be embedded into service evaluation design and clinical practice, translating youth-identified priorities into actionable guidance for clinicians and services seeking to enhance MBC involvement.

The overarching research question for this study was: What is the current state of data collection at Aire ouverte, and what are youth perspectives on how it should be done?

Document Analysis

Research Objective

The objectives of this study were:

- To characterise the current state of MBC in Aire ouverte services by mapping the youth-reported measures currently deployed across sites, including the domains assessed and the extent of youth participation in their development.
- To investigate whether these locally created questionnaires align with psychometric recommendations

Given the exploratory and participatory nature of the study, no a priori hypotheses were specified.

Research Question

What data collection measures are currently in use across Aire ouverte sites, and how do they compare with psychometric recommendations?

Workshop

Research Objective

The objectives of this study were:

- to identify youth-defined priorities and preferences for youth-reported measures within Aire ouverte
- to translate youth-identified priorities into a practical list of recommendations to support clinician and service-level implementation of youth-reported measures

Given the exploratory and participatory nature of the study, no a priori hypotheses were specified.

Research Question

How would youth like data collection to be at Aire ouverte?

Materials and Methods

The research protocol was approved by the McGill University Research Ethics Board (REB) prior to the commencement of the study. Data from sites for document analysis were obtained through an ongoing research program around Aire ouverte services (REB CIUSSS Centre Sud de Montreal, #MP-52-2024-2109). All participants provided informed consent before participating. Participants were informed of their right to freely provide or withdraw consent at any time without any impact on the services they receive.

A mixed-methods study design was employed to address the research questions. The study consisted of two complementary components. First, a descriptive document analysis of locally developed questionnaires currently used within Aire ouverte was conducted to examine their characteristics and compare them with psychometric recommendations. Second, a participatory workshop employing NGT to co-develop a practical list of recommendations aimed at improving youth engagement with tools to provide their perspectives. Together, these methods allowed for the examination of both the measurement tools used within the service and the factors influencing youth engagement with these tools.

Reflexive Statement

I acknowledge that researcher bias must be recognised in the development and interpretation of research. As a white cisgender woman, my experiences with the health system represent only one perspective and may be skewed towards more positive interactions. Additionally, as a university student with prior experience participating in research, I bring a level of research literacy and access to health and academic resources that may differ from those of some youth participants. As a result, my understanding of the importance of youth-reported measures within learning health systems may not align with how youth perceive their relevance or impact. My involvement in this project reflects an

underlying belief that there are viable solutions to encourage youth participation in youth-reported measures, which may have contributed to a more optimistic stance. Finally, although the research question was framed as exploratory, I approached the study with some expectations based on my own experiences regarding the types of suggestions youth participants might offer, specifically wanting more choice in how their data is collected and wanting more information as to the purpose of the measures being administered. I also acknowledge that my prior knowledge of psychometrically sound questionnaires and measurement norms may have influenced my interpretation of the document analysis, potentially shaping how I evaluated locally developed measures, reflecting a training background that prioritises psychometric rigour, which may not be universally valued across different cultural or practice contexts. Additionally, this project was also shaped by my mentor, Tovah Cowan, a licensed clinical psychologist with experience working in Learning Health Systems. Her previous clinical work and training was primarily in the cognitive behavioural tradition, which heavily prioritises data and measurement-based care. She is also a white, cisgender woman with largely positive experiences of the healthcare system and an optimism about the possibilities of MBC and data-driven service improvements, which she acknowledges comes from training in a positivistic epistemic tradition largely influenced by Whiteness.

Document Analysis Methodology

Inclusion and Exclusion Criteria

Only questionnaires which were, at least in November 2025, actively in use at an Aire ouverte were included. Measures in progress of creation are subject to change between time of data collection and their implementation in the service which would have affected results.

Study Sample

Eight questionnaires were included in the study from multiple Aire ouverte sites across Quebec. Seven sites were urban, and one was rural. Aire ouverte services are being accessed by diverse youths, and services are mostly delivered by social workers, occupational therapists, nurses, peer support workers, psychologists, and, where possible, psychiatrists, family doctors, employment specialists, etc. Hubs are accessible (free of charge, walk-in hours, convenient locations).

Design Description

This study was conducted as part of a broader provincial evaluation examining the implementation of an LHS within Aire ouverte services. Within this framework, routine data collection generates feedback that informs service improvement. To better understand the measures currently used to collect this information, a qualitative document analysis was conducted on satisfaction questionnaires implemented across Aire ouverte sites. Across Aire ouverte sites, satisfaction questionnaires represent the primary form of routine youth-reported data collection currently in use. This reflects a common pattern in integrated youth service contexts, where satisfaction measures are frequently adopted due to their accessibility and low respondent burden. As a result, the document analysis focused exclusively on satisfaction questionnaires, as these constituted the available body of locally developed measurement tools within the service.

The aim of this analysis was to describe the characteristics of locally developed questionnaires and compare them with established psychometric recommendations. This approach allowed for a systematic examination of the extent to which the questionnaires align with recognised measurement standards and to identify potential areas for improvement in the development and use of youth satisfaction measures within Aire ouverte.

Data Collection

Questionnaires were collected using surveys distributed to all Aire ouverte team managers. The survey asked sites to report the extent of youth involvement in the development of the measure, describe the process used to create the questionnaire, and provide a blank copy of the measure currently being used at their site. These documents were then compiled to form the dataset used for the document analysis.

Data Analysis

The data from the survey was analysed using document analysis methodology (Dalglish et al., 2020). The questionnaires provided by participating sites were reviewed to identify key characteristics, including domains assessed, response scales used, and item structure. These characteristics were then compared with established psychometric recommendations to assess the extent to which the locally developed measures aligned with recognised measurement standards. These recommendations were generated from the literature and organised into two broad categories: item design and response options.

Item design included clarity and specificity of wording, appropriate language level for scale users, avoiding long or double-barrelleditems, avoiding culturally biased or offensive language and ensuring items reflect the lived experiences of the target population.

Response options included unambiguous dichotomous response options, Likert scales spanning the full response continuum with 5–7 mutually exclusive and ordered consistency consistent Likert scale formatting throughout each questionnaire, and minimal use of open-ended questions.

Knowledge translation

To support knowledge translation at the end of the document analysis, a meeting was organised with representatives from Santé Québec to present the findings of the analysis of Aire ouverte questionnaires. The objective of this meeting was to share results with key system interest holders involved in the implementation and oversight of Aire ouverte services. A PowerPoint presentation was developed to communicate the findings in a clear and accessible format and to facilitate discussion regarding the implications of the results for future measurement practices within Aire ouverte.

Workshop Methodology

Participants

Inclusion and Exclusion Criteria. Service users must have been between the ages of 18 and 37, have received mental health services in the previous two years, be conversational in English or French, and have had an opportunity to complete a self-report measure (with no requirement for having completed the measure). The lower bound of this age range was chosen so that young service users could travel to the planned activity without needing parental supervision. The upper bound was chosen to represent the known upper age range for some early intervention programs in Canada, plus a two-year buffer.

Sample Size and Justification. An ideal number of seven individuals has been recommended for NGT workshops to maintain manageable group discussion and effective consensus-building, with appropriate ranges being from 3-10 individuals (McMillan et al., 2014). Smaller groups are considered optimal for this method as they facilitate balanced participation while also allowing for generative and rich discussion.

Study Sample. The study sample was composed of four youth. Youth were age 18-23. One youth identified as a visible minority, and one youth was a first-generation immigrant. We

included three women and one man. Youth had various lengths of service engagement (ranging from several months to over five years). Two youth had received the opportunity to fill out measures only once, while one had received them every few months.

Design Description

A qualitative design was employed to answer the research question and develop a youth-informed list of recommendations for implementation at Aire ouverte. The study used an NGT workshop (McMillan et al., 2014).

Data Collection

A half-day workshop was conducted with youth engaged in services at Aire ouverte using the NGT, a structured consensus method designed to support idea generation, problem-solving, and prioritisation (McMillan et al., 2016). Prior to the NGT activities, a brief icebreaker and team-building exercise was facilitated to promote rapport and create a comfortable environment for participants to share their perspectives. Additionally, a short presentation (around 10 minutes) provided participants some background information on the purpose of collecting data, common methods, and common problems. The workshop addressed the question: "*Selon vous, quelle est la meilleure façon de collecter l'information?*", which translates to "According to you, what is the best way to collect information?" It explored youth perspectives on the implementation of MBC at Aire ouverte, with a focus on understanding factors influencing questionnaire response rates.

The NGT process involved four stages: silent generation, round robin, clarification and voting (ranking). This process was audio recorded. The silent generation consisted of 10 minutes to silently reflect and record their individual response to the questions asked on electronic post-it notes. This was followed by a round robin phase, during which participants shared one idea at a time, with all ideas displayed on an electronically shared whiteboard for

group visibility. This process was continued until no new ideas were generated. The facilitator then moved on to the clarification stage. During this phase, participants reviewed all ideas generated in the previous stage and were invited to seek clarification, suggest modifications, or propose the inclusion, exclusion, or consolidation of similar ideas. Where appropriate, ideas were grouped into broader themes through group discussion, with agreement from participants. Consistent with nominal group methodology, facilitators adopted a neutral role and did not direct discussion or influence the content of ideas. Participants were informed that consensus on all ideas was not required, as individual preferences would be reflected during the subsequent ranking stage. Following clarification, participants were each given electronic five stickers to vote with and could arrange them however they wanted on the post-it notes. This process enabled the prioritisation of youth-identified preferences. The workshop lasted three hours and 15 minutes. The workshops resulted in a list of prioritised recommendations generated by the youth.

Following the workshop, the initial list of recommendations was created to be shared with service providers and decision makers at Aire ouverte.

Data Analysis

Data from the Aire ouverte NGT workshop were analysed both quantitatively and qualitatively, following recommended procedures (McMillan et al., 2014). Qualitatively, reflexive thematic analysis (Braun & Clarke, 2006, 2012, 2021) was used to identify themes in the ideas and recommendations generated during the workshop. Themes were based off the youths' categorization of the ideas. Quantitatively, each idea was ranked according to its total number of votes, regardless of how many participants contributed those votes. In cases where two or more ideas received equal votes, the number of individual participants who voted for each idea was used as a tiebreaker to determine relative popularity. This approach enabled

clearer distinction between the overall importance assigned to each idea and the breadth of support it received.

Results

Document Analysis Results

All questionnaires involved youth at some point in their creation process. Seven were approved by youth after initial development, as per psychometric recommendations which state that expert review by members of the target population is one of the best practices for validation (Boateng et al., 2018; Kaplan & Saccuzzo, 2013). One was co-constructed with youth.

The questionnaire covered many domains or aspects of satisfaction. As shown in Table 1, the most frequently included domains were *welcome/greeting* (n = 8) and *comments/suggestions* (n = 7), followed by *global recommendation* and *contact with service provider* (n = 6). Interpersonal experiences, such as *feeling listened to* and *needs met*, were also common (n = 5), while domains like *access to services* and *feeling respected* appeared moderately often (n = 4). Most other domains were infrequently included ($n \leq 3$), with several appearing only once. Overall, this suggests a stronger emphasis on relational and initial service experiences, with less consistency in other areas.

The evaluation showed partial adherence to established psychometric recommendations, with several criteria consistently met across the questionnaires. As shown in Table 3, language appropriateness and cultural sensitivity were the most consistently respected recommendations, as all questionnaires used language appropriate for the target population and avoided culturally biased or offensive wording. Several questionnaires also demonstrated adequate item length and avoidance of double-barrelled questions, although these principles were not applied consistently across all instruments. In contrast, clarity and

specificity of items varied across questionnaires, suggesting that some items may be interpreted ambiguously by respondents. As shown in Table 2 and Table 3, greater variability was observed in the design of response options, particularly regarding Likert-scale construction. Only a subset of questionnaires ensured that response scales covered the full continuum of possible answers or consistently used ordered and mutually exclusive categories. Similarly, consistency in scale format across questionnaires and adherence to the recommended five to seven Likert response categories were uneven. Finally, most questionnaires adhered to recommendations to limit the number of open-ended questions, though some instruments exceeded this guideline.

Table 1

Frequency of domains included in youth-council-validated measures organized from most to least common

Domains	**Count**
The welcome / greeting	8
Comments/ Suggestions	7
Global recommendation	6
Contact with service provider	6
Felt listened to	5
Needs met	5
Access to services	4
Felt respected	4
Demographic info (Age)	3
The physical space	3
Answered questions	3

Domains	Count
Feel equipped	3
Demographic info (Gender)	2
Met expectations	2
Global satisfaction	2
Cleanliness	1
Vibe	1
Access to free products	1
Find the site	1
Booking an appointment	1
Felt supported	1
Non-judgement	1
Confidentiality	1
Use service again	1

Table 2

Structure of youth council-approved measures by questionnaire

Questionnaire	Domains	Type of response option	Number of points	Response option
1	Multiple domains of satisfaction	Likert scale	3	« Trop hot » – « Poche »
1	Needs met	Categorical	3	« Oui / Non / Bof (+ pourquoi) »
1	Comments	Open question	–	Open response
2	Contact	Dichotomous	2	Yes / No
2	Physical space, Welcome, cleanliness	Likert scale	4	Really good – Really bad
2	Access, booking an appointment	Likert scale	3	Awesome – Not great
2	Quality of interactions	Likert scale	3	1 (Totally) – 3 (Not at all)
2	Recommendations	Likert scale	5	1 (not at all) – 5 (totally)
2	Comments	Open question	–	Open response
3	Domains of satisfaction	Visual Likert scale	5	Smiley Face
3	Sociodemographic data	Categorical	–	Categories of age / gender
3	Comments	Open question	–	Open response
4	Welcome, the appointment	Likert scale	5	Adored – Detested
4	Expectations / needs	Likert scale	7	100 % – Not at all
4	Recommending the service	Categorical	3	Certainly / Maybe / No
4	Comments	Open question	–	Open response

Questionnaire	Domains	Type of response option	Number of points	Response option
5	Domaines de satisfaction	Likert scale	4	Very satisfied – Very dissatisfied
5	Use service again	Dichotomous	2	Yes / No
5	Comments	Open question	–	Open response
6	Comparison of service aspects	Checklist	–	Which did you prefer?
6	Comprehension / empowerment	Categorical	3	« Oui / C'est flou / Non »
6	Gobal Satisfaction	Likert scale	5	Star rating
6	Recommendations	Dichotomous	2	Yes / No (why, optional)
7	Satisfaction, recommandations	Open question	–	Open response
8	Domaines de satisfaction	Visual Likert scale	5	Sad face – Happy face
8	Satisfaction	Categorical	–	At the end of the appointment I feel…

Table 3

Evaluation of psychometric recommendations for questionnaires

Psychometric Recommendations	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Item Design								
Clarity & Specificity	–	✓	–	✓	✓	✓	–	✓
Avoid long items	✓	✓	–	✓	✓	✓	✓	–
Appropriate language level for scale users	✓	✓	✓	✓	✓	✓	✓	✓
Avoid Double barrelled questions	✓	✓	–	✓	–	✓	✓	–
Avoid culturally biased or offensive language	✓	✓	✓	✓	✓	✓	✓	✓
Items reflect lived experience of target population	✓	✓	✓	✓	✓	–	✓	–
Response Options								
Dichotomous responses unambiguous	–	✓	N/A	–	✓	–	N/A	N/A
Likert scale covers full continuum	–	–	–	✓	–	–	N/A	✓
Consistency of scale format throughout questionnaire	✓	–	✓	–	✓	✓	N/A	✓
Likert responses mutually exclusive and ordered	✓	✓	–	✓	✓	–	N/A	✓
Likert: 5–7 response categories	–	–	✓	✓	–	✓	N/A	✓
Minimise open ended questions (no more than 1/3 or 1-3)	✓	✓	✓	✓	–	✓	–	N/A

Note: Psychometric recommendation items were evaluated based on an all or nothing principle. Items received a check if consistently present throughout survey, Items received a

dash if violated at least once in survey. Items received an N/A when such concept was not applicable (e.g., no dichotomous choice questions were present in the survey)

Knowledge translation

Researchers organised a meeting with eight Aire ouverte representatives from Santé Quebec. On 26th February at 1:30 pm, the research team presented a comparison of AO's internal youth satisfaction questionnaires and the questionnaire used by the MSSS. The purpose of the meeting was to provide the team with an overview of measures being implemented in Aire ouverte sites around Quebec and how those differ from the MSSS questionnaire.

A key question that emerged was how to develop evaluation tools that are both youth-friendly and methodologically validated. It was noted that while standardised questionnaires provide important benefits such as validation and comparability across organisations, they are often lengthy and use language that may be difficult for youth to understand. The comparison with AO data also highlighted that locally developed questionnaires have served an important purpose within the organisation by capturing youth perspectives when standardised tools were less accessible or perceived as less accessible. Team members emphasised that full co-construction with youth, while valuable in principle, is often time-intensive and highly context-specific, which can make standardisation difficult. However, these internally developed tools were also recognised as being less methodologically validated than standardised instruments.

Overall, the discussion suggested that a "middle ground" may exist between locally developed questionnaires and fully standardised measures, where youth perspectives can be incorporated while maintaining the benefits of validated instruments.

Workshop Results

This study sought to identify youth-informed priorities for MBC within an integrated youth service context. The NGT workshop generated several recommendations regarding how youth satisfaction and service experience should be evaluated (see Appendix A). Overall, participants emphasised the importance of accessible, youth-friendly, and context-adapted feedback mechanisms.

Four main themes emerged: accessible and anonymous feedback tools, youth-centred survey design, flexible timing and formats for feedback collection, and relational approaches to feedback. Youth highlighted the need for simple and anonymous ways to provide feedback, such as suggestion boxes in clinics or tablets with questionnaires available on-site and avoiding QR codes that may limit accessibility. Participants also suggested that questionnaires should be available in multiple languages to increase inclusivity. They stressed that surveys should include space for open-ended feedback and measure concrete aspects of the service experience, such as trust in the care team, comfort of the environment, access to services, and whether the young person felt helped. Youth also recommended that survey questions be reviewed by youth committees to ensure clarity and relevance. Participants emphasised the importance of adapting the timing of feedback collection, noting that surveys administered immediately after consultations may produce rushed responses or acquiescence bias. Beyond questionnaires, participants proposed more human and relational methods of evaluation, such as satisfaction discussions with peer supporters or youth who have previously used the service. They also highlighted the value of engaging youth in places they already frequent (e.g., schools or community spaces) and through outreach kiosks to gather input on desired services.

Discussion

Document Analysis Discussion

The findings from the domain analysis suggest that youth council-validated measures place the strongest emphasis on relational and experience of care, particularly the first impression (the welcome) of services. This aligns with the principle that Aire ouverte is a service many youth will visit once rather than a service where youth have multiple follow-ups, therefore their rating of the service may be based only on a single impression. The prominence of domains such as feeling listened to, needs being met, and contact with service providers highlights the importance of interpersonal interactions in shaping youths' perceptions of service quality. This aligns with IYS frameworks that prioritise respectful, responsive, and participatory relationships over purely administrative or structural elements (Canada's Federation of Integrated Youth Services Network, 2022). In contrast, the relatively lower and more inconsistent inclusion of practical, demographic, and environmental domains (e.g., access processes, physical space) suggests these factors may be viewed as less central to youths' evaluations, or more context dependent. The variation across less frequently endorsed domains indicates a lack of consensus regarding which additional aspects of service experience should be routinely captured, reinforcing the need for flexible or adaptable measurement approaches that can reflect diverse youth and service priorities.

The findings from Table 3 suggest that while many questionnaires respected basic linguistic and cultural considerations, greater attention to response scale construction and item clarity may improve the psychometric quality and interpretability of youth-focused survey instruments. The wide variation across measures also makes comparisons across sites challenging. As a result, these surveys appear to function primarily at the local site level of the LHS, rather than supporting province-wide evaluation across the Aire ouverte network.

Within an LHS, comparable and reliable measurement tools are essential to support continuous learning, benchmarking across sites, and system-level quality improvement (Agweyu et al., 2023; Rajit et al., 2024). The different measures used across Aire ouverte sites limits the ability to systematically identify what is working well in one region and what may require improvement in another, thereby complicating service improvement. Consistent with this challenge, Demers et al. (2024), who evaluated satisfaction within Aire ouverte services, relied on an externally validated measure, highlighting the difficulty of using locally developed instruments that may lack strong psychometric properties for broader evaluation and service improvement. The diversity in questionnaires may reflect the pragmatic context in which they are developed, where local service teams prioritise feasibility and rapid feedback over formal psychometric validation.

Workshop Discussion

This study contributes to the limited body of research incorporating youth voices into the implementation of MBC within IYS. Although youth engagement is often promoted as a principle of youth-centred service delivery, the perspectives of young service users remain underrepresented in LHS and implementation research (Bergman et al., 2018; Dey et al., 2025; Parikh et al., 2020). By using a participatory approach to identify priorities for implementing MBC in IYS, this study sought to address this gap and support the integration of youth perspectives into service improvement processes. Consistent with recent calls to embed youth voices in the design and evaluation of IYS, this initiative may help foster sustained youth engagement in MBC while contributing to the development of service practices that are more responsive to youth's needs (Bailey et al., 2024).

These findings highlight several ways in which current evaluation practices may not fully align with youth preferences and experiences when engaging with mental health

services and completing measures. Given that youth accessing IYS services may already face multiple barriers to care, ensuring that questionnaires are quick, accessible, and integrated seamlessly into service delivery may be essential for encouraging participation.

Youth indicated that they valued having options regarding the format and timing of questionnaires, suggesting that flexibility could support greater engagement. This finding reflects the broader youth-centred care principle that youth should have autonomy and agency in their interactions with services (Watson et al., 2023). Meaningful youth engagement requires structures that go beyond offering choice, including opportunities for youth to influence processes, receive clear information, participate in decisions over time, and be supported by trusting relationships (Watson et al., 2023). When youth feel they have control over aspects of their care, they may be more likely to engage meaningfully with clinical tools such as outcome measures (Viksveen et al., 2024).

Participants expressed wanting to understand why they were being asked to complete questionnaires and how the information would be used by clinicians or services. This aligns with research emphasising that information sharing, listening, and validating youth's perspectives are central to supporting their involvement in care (Gondek et al., 2017). When such elements are absent, they can act as barriers that limit autonomy and participation (Gondek et al., 2017). Consistent with this, adolescents often demonstrate lower acceptance and confidence in MBC when its purpose is not clearly explained (Bickman et al., 2011). Providing clear explanations about the goals of MBC and how the data informs care may therefore increase youth participation and improve the perceived relevance of these measures.

Similarly, youth emphasised the importance of communication and follow-up from service providers regarding questionnaire results. Participants reported wanting feedback on how their responses were interpreted and how the information influenced their care. This is

consistent with evidence that collaborative relationships characterised by trust and ongoing dialogue are associated with greater treatment motivation, satisfaction, attendance, and continuation (Viksveen et al., 2024). Moreover, evidence suggests that MBC is most effective when clinicians regularly review results with patients and integrate them into clinical decision-making (Parikh et al., 2020). When feedback loops are absent, youth may perceive questionnaires as administrative tasks rather than meaningful tools for improving care (Gondek et al., 2017).

Of note, there was consensus, as this is the primary goal of the NGT workshop structure, agreement was not. Agreement, defined here as wide endorsement by a majority of participants, was absent. While several items received more than one vote, these votes came from the same individual, no two participants voted for the same item. This lack of convergence in youth priorities suggests that although broader themes were shared, youth priorities did not align on the level of specific items. This could indicate that engagement with MBC may be multifactorial. There may be no universal way to effectively engage youth in MBC. Features that increase engagement for one person may, conversely, be perceived as a barrier for another. Therefore, the best solution may be to provide options for youth engagement and let young service users choose their preferred way of engaging with data collection and MBC.

Overall, this suggests that effective use of MBC is less about the specific content of measures than about how they are delivered and experienced by youth. Engagement appears to be relational rather than strictly technical, with participation increasing when MBC is embedded in supportive interactions rather than treated as an administrative task. Transparency about the purpose of the measures and consistent feedback on the results also shape whether MBC is perceived as meaningful. The lack of consensus on specific items

points to the individualised nature of engagement in MBC, suggesting that adaptable, choice-based approaches may be more effective than standardised models.

Integration of Findings

The document analysis findings indicate that youth validated measures prioritise the relational aspect of care and the initial welcome. This emphasis on relationality is reinforced by findings from the workshop, where youth similarly highlighted the importance of interpersonal connection in their recommendations.

The findings from the psychometric evaluation can also be considered alongside the youth perspectives identified in the NGT workshop. There appears to be a discrepancy between what is happening in services and what youth perceive or know, highlighting the importance of more fluid communication across service levels, as emphasised by youth in the workshop. Surveys, despite their psychometric limitations, accurately reflect youth priorities, suggesting there is insufficient communication within services, leaving youth unaware of what is occurring. This sentiment was also emphasised by youth in the workshop. While locally created questionnaires from Aire ouverte may not meet all psychometric standards, many aspects of these measures align with youth priorities identified in the workshop. Most surveys were accessible in terms of youth-friendly language, all were validated by youth to some extent, and many included open-ended response options, all elements that youth identified as important during the workshop. Despite reflecting youth priorities, several surveys reported low response rates, suggesting that youth priorities in format and design may not be the only factors affecting youth engagement in MBC. As discussed above, other elements such as autonomy and explaining the purpose of the tools being used in clinical practice are important factors in youth engagement. Other factors not discussed in the nominal group technique workshop may also be affecting youth participation in MBC.

From a psychometric perspective, autonomy and explaining the purpose of the tool supports respondent engagement, while youth validation enhances measurement relevance and acceptability, aligning with best practices in youth-informed research and participatory evaluation (DeVellis & Thorpe, 2022). Integrating youth-informed priorities with stronger psychometric design represents an important next step for developing measures that are both scientifically robust and responsive to youth perspectives.

Policy Implications

The findings of this study have several practical implications for the implementation of MBC in youth mental health services. The priorities identified through the workshops will be used to develop a youth-informed list of recommendations for MBC implementation. This list of recommendations aims to translate the ideas generated during the workshops into actionable recommendations that can be applied within integrated youth service settings.

Incorporating youth input into implementation processes may also strengthen learning health systems by ensuring that service improvements reflect the experiences of those who use them. By embedding youth perspectives into MBC practices, services may be better positioned to develop monitoring systems that are both clinically meaningful and engaging for youth.

However, the knowledge translation experience highlighted the practical tensions involved in developing evaluation tools that are both methodologically robust and accessible to youth. The discussion underscored a key challenge: while standardised measures support reliability, validity, and comparability across sites, they may not be well-suited to youth populations due to the length and complexity of language. Conversely, locally developed questionnaires within Aire ouverte have played an important role in capturing youth perspectives in a more accessible way but lack formal validation.

These insights point to the value of a balanced approach, where elements of standardised instruments are adapted or supplemented through youth-informed processes. Such a "middle ground" reflects the importance of knowledge translation as an iterative and collaborative process, ensuring that research evidence is not only rigorous but also responsive to the needs and contexts of those it is intended to serve.

Strengths and Limitations

The use of document analysis as a methodology offered several advantages in this context. By examining the questionnaires directly rather than relying on self-reported accounts of practice, this approach provided an accurate and systematic account of the current state of data collection across Aire ouverte sites. Document analysis is also non-intrusive and places no additional burden on clinical staff or youth, which is a meaningful consideration within active service settings. Finally, the questionnaires examined in this study were generated within the system as part of routine service delivery. Analysing them is therefore consistent with the broader evaluation LHS framework within which this study was embedded, where there is an emphasis on research/data collection as is practised in real-world settings and the relevance of the findings for service-level learning and improvement.

A key limitation of the document analysis relates to the limited contextual information available in the document analysis, specifically pertaining to how these documents were being implemented in services. That is, the "meaning" of a document is not just in the words but in how they relate to the time, place, purpose, and producer of the text (Morgan, 2022). Without this information, interpretations of the implementation or effectiveness of the measures in services cannot be made. Therefore, nothing can be said about the advantages of implementing youth-friendly measures in youth engagement and in youth response rates.

The use of the Nominal Group Technique represented a key strength of this study. It provides a structured and non-hierarchical consensus method, allowing participants to

contribute ideas independently before discussing and prioritising them as a group. This structure helps ensure that all participants have an opportunity to share their perspectives and reduces the likelihood that certain voices dominate the discussion. Additionally, the ranking process used in NGT generates clear prioritisation of ideas, which can facilitate translation of findings into actionable service recommendations. In the context of this study, the method allowed youth to collectively identify the most important aspects of MBC implementation from their perspective, producing results that can be directly used to inform practice.

Several limitations should be considered when interpreting these findings. First, the workshop included a small number of participants, which may limit the generalisability of the results. But small groups are typical in NGT studies. Notably, these young service users were already highly involved in services - anecdotally, several of them reported being involved in youth governance of the service, though we did not collect data on that role. Therefore, the findings may not reflect the perspectives of youth who are less engaged with services. Second, participants were recruited from an integrated youth service setting that already emphasises youth engagement. For example, the organisation includes youth advisory councils and peer support services, which may make consultation with youth more feasible than in settings where such structures do not already exist, but will also shape the culture that youth expect and react to. As a result, implementing similar recommendations may require broader infrastructural and cultural adaptations in other service contexts.

Future Directions

Future work could focus on developing or adapting a shared set of psychometrically sound youth experience measures that maintain youth-informed content while allowing for comparability across Aire ouverte sites. Beyond the quality of the measures, future research should also investigate the factors that determine whether youth complete these measures. Improving engagement in data collection remains a central challenge, and understanding

contextual, relational and structural barriers to participation would be a valuable next step in strengthening MBC implementation.

Future research should also explore whether similar priorities emerge in other integrated youth service settings across Canada, particularly in provinces with different service structures or youth engagement practices. Comparative studies could help determine whether the priorities identified in this study reflect broader trends among young service users or are specific to the local service context. Finally, further work should involve evaluating the implementation of the youth-informed recommendations developed in this study. Assessing their impact on youth engagement, clinician uptake, and service outcomes would provide valuable evidence regarding the effectiveness of incorporating youth perspectives into MBC practice.

Conclusion

This study addressed the gap in the implementation of MBC within IYS by examining the current state of data collection at Aire ouverte and what youth want that process to look like. Taken together, the findings from both studies reveal a disconnect between how data collection is currently designed and the conditions that would make meaningful youth engagement possible.

Locally developed satisfaction questionnaires show only partial adherence to psychometric recommendations. Variability in item clarity, Likert-scale construction, and response format consistency suggests that the quality of existing measures could be meaningfully strengthened. They nonetheless reflect many elements that youth identified in the NGT workshop. This suggests that existing measures are not without merit but rather represent a foundation that could be meaningfully strengthened through more rigorous psychometric design. The workshop study highlighted that youth are not passive recipients of data collection, rather they hold clear preferences about how, when and with whom they

share their perspectives. Their priorities, including accessible and anonymous feedback tools, youth-centred survey design, flexible timing, and relational approaches to feedback, point toward a model of data collection that is as attentive to the experience of participation as it is to measurement quality. Notably, the persistence of low response rates even where surveys reflected youth-identified design preferences suggests that engagement in MBC is shaped by factors beyond format alone, including autonomy, relational context, and the purpose of data collection.

These findings underscore that strengthening MBC within Aire ouverte requires attention to both dimensions simultaneously. Psychometrically sound measures are necessary but not sufficient alone, youth engagement must be actively designed for, not assumed. The recommendations generated through this research offer a concrete starting point for services seeking to close this gap. At a policy level, embedding youth perspectives into data collection practices ensures that service monitoring and improvement efforts are not only methodologically rigorous but genuinely responsive to the experiences of those they are designed to serve.

References

Aboraya, A., Nasrallah, H. A., Elswick, D. E., Ahmed, E., Estephan, N., Aboraya, D., Berzingi, S., Chumbers, J., Berzingi, S., Justice, J., Zafar, J., & Dohar, S. (2018). Measurement-based Care in Psychiatry—Past, Present, and Future. *Innovations in Clinical Neuroscience*, *15*(11–12), 13–26.

Agweyu, A., Hill, K., Diaz, T., Jackson, D., Hailu, B. G., & Muzigaba, M. (2023). Regular measurement is essential but insufficient to improve quality of healthcare. *BMJ*, *380*, e073412. https://doi.org/10.1136/bmj-2022-073412

Bailey, K., Allemang, B., Vandermorris, A., Munce, S., Cleverley, K., Chisholm, C., Cohen, E., Davidson, C., El Galad, A., Leibovich, D., Lowthian, T., Pillainayagam, J., Ramesh, H., Samson, A., Senthilnathan, V., Siska, P., Snider, M., & Toulany, A. (2024). Benefits, barriers and recommendations for youth engagement in health research: Combining evidence-based and youth perspectives. *Research Involvement and Engagement*, *10*(1), 92. https://doi.org/10.1186/s40900-024-00607-w

Bentayeb, N., Weiss, B., Ziani, M., & Goyette, M. (2022). Aire ouverte Laval: Défis et premières leçons d'une histoire de cocréation en santé mentale jeunesse. *Canadian Public Administration*, *65*(1), 99–121. https://doi.org/10.1111/capa.12451

Bergman, H., Kornør, H., Nikolakopoulou, A., Hanssen-Bauer, K., Soares-Weiser, K., Tollefsen, T. K., & Bjørndal, A. (2018). Client feedback in psychological therapy for children and adolescents with mental health problems. *The Cochrane Database of Systematic Reviews*, *2018*(8), CD011729. https://doi.org/10.1002/14651858.CD011729.pub2

Bickman, L., Kelley, S. D., Breda, C., de Andrade, A. R., & Riemer, M. (2011). Effects of Routine Feedback to Clinicians on Mental Health Outcomes of Youths: Results of a

Randomized Trial. *Psychiatric Services*, *62*(12), 1423–1429. https://doi.org/10.1176/appi.ps.002052011

Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research: A Primer. *Frontiers in Public Health*, *6*, 149. https://doi.org/10.3389/fpubh.2018.00149

Boswell, J. F., Hepner, K. A., Lysell, K., Rothrock, N. E., Bott, N., Childs, A. W., Douglas, S., Owings-Fonner, N., Wright, C. V., Stephens, K. A., Bard, D. E., Aajmain, S., & Bobbitt, B. L. (2023). The need for a measurement-based care professional practice guideline. *Psychotherapy*, *60*(1), 1–16. https://doi.org/10.1037/pst0000439

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2012). Thematic analysis. In *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association. https://doi.org/10.1037/13620-004

Braun, V., & Clarke, V. (2021). Can I use TA? Should I use TA? Should I *not* use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. *Counselling and Psychotherapy Research*, *21*(1), 37–47. https://doi.org/10.1002/capr.12360

Canada's Federation of Integrated Youth Services Network. (2022). *10 Principles for IYS — Integrated Youth Services*. https://www.iys-sij.ca/materials/10-principles

Canadian Medical Association & Canadian Psychiatric Association. (2016). *Joint Statement on Access to Mental Health Care from the Canadian Medical Association and*

Canadian Psychiatric Association. https://policybase.cma.ca/viewer?file=%2Fmedia%2FPolicyPDF%2FPD16-04.pdf

Dalglish, S. L., Khalid, H., & McMahon, S. A. (2020). Document analysis in health policy research: The READ approach. *Health Policy and Planning*, *35*(10), 1424–1431. https://doi.org/10.1093/heapol/czaa064

Deans, K. J., Sabihi, S., & Forrest, C. B. (2018). Learning health systems. *Seminars in Pediatric Surgery, A Clinical Research Primer for Pediatric Surgeons*, *27*(6), 375–378. https://doi.org/10.1053/j.sempedsurg.2018.10.005

Demers, G., LeBlanc, A., East-Richard, C., Iyer, S., Tremblay, A., & Cellard, C. (2024). *Experience of care and health perception among youth who received services within Aire ouverte, a new Integrated Youth Services Network: A Photovoice approach.* Preprints. https://doi.org/10.22541/au.173245324.40500548/v1

DeVellis, R. F., & Thorpe, C. T. (2022). *Scale development: Theory and applications* (Fifth edition, 1 online resource (xvii, 298 pages) : illustrations). SAGE Publications, Inc. WorldCat. https://public.ebookcentral.proquest.com/choice/FullRecord.aspx?p=7106417

Dey, A., Lewis, Z., Posel, J., Pan, R. Y., & Wang, K. (2025). Quantifying care, qualifying experiences: A systematic review of measurement-based care in psychiatry from patient and provider perspectives. *BMJ Mental Health*, *28*(1). https://doi.org/10.1136/bmjment-2025-301663

Fortney, J. C., Unützer, J., Wrenn, G., Pyne, J. M., Smith, G. R., Schoenbaum, M., & Harbin, H. T. (2017). A Tipping Point for Measurement-Based Care. *Psychiatric Services*, *68*(2), 179–188. https://doi.org/10.1176/appi.ps.201500439

Friedman, C. P., Wong, A. K., & Blumenthal, D. (2010). Achieving a Nationwide Learning Health System. *Science Translational Medicine*. (world). https://doi.org/10.1126/scitranslmed.3001456

Gondek, D., Edbrooke-Childs, J., Velikonja, T., Chapman, L., Saunders, F., Hayes, D., & Wolpert, M. (2017). Facilitators and Barriers to Person-centred Care in Child and Young People Mental Health Services: A Systematic Review. *Clinical Psychology & Psychotherapy*, *24*(4), 870–886. https://doi.org/10.1002/cpp.2052

Government of Canada. (2022, March 25). *Integrated Youth Services Network of Networks Initiative (IYS-Net)—CIHR*. Canadian Institutes of Health Research. https://cihr-irsc.gc.ca/e/52912.html

Government of Canada. (2024a, September 10). *Changes in the health characteristics of youth between 2019 and 2023, Canadian Health Survey of Children and youth, 2023 Longitudinal sample*. Statistics Canada. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310090401

Government of Canada. (2024b, September 10). *The Daily—2023 Canadian Health Survey on Children and Youth—Changes in the mental health of respondents from the 2019 survey*. Statistics Canada. https://www150.statcan.gc.ca/n1/daily-quotidien/240910/dq240910a-eng.htm

Government of Canada. (2024c, September 19). *Canadian Health Survey on Children and Youth (CHSCY)*. Statistics Canada. https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1545755

Henderson, J., Hawke, L. D., Iyer, S. N., Hayes, E., Darnay, K., Mathias, S., & Thabane, L. (2022). Youth Perspectives on Integrated Youth Services: A Discrete Choice Conjoint Experiment. *The Canadian Journal of Psychiatry*, *67*(7), 524–533. https://doi.org/10.1177/07067437211044717

Hilferty, F., Cassells, R., Duncan, A., Christensen, D., Mitrou, F., Gao, G., Mavisakalyan, A., Hafekost, K., Tarverdi, Y., Nguyen, H., Wingrove, C., & Katz, I. (2015). *Is headspace making a difference to young people's lives?: Final report of the independent evaluation of the headspace program*. Social Policy Research Centre.

Institute of Medicine (US) Roundtable on Evidence-Based Medicine. (2007). *The Learning Healthcare System: Workshop Summary* (L. Olsen, D. Aisner, & J. M. McGinnis, Eds.). National Academies Press (US). http://www.ncbi.nlm.nih.gov/books/NBK53494/

Kaplan, C., Cho, E., Russo, J., Naclerio, M., Tirpak, J. W., Lee, E., Au, J. S., Salisbury, A., Dickstein, D. P., & McLean Hospital Simches Division of Child and Adolescent Psychiatry. (2023). 10 Lessons Learned in Launching a Division-Wide Measurement-Based Care Initiative. *Journal of the American Academy of Child and Adolescent Psychiatry*, *62*(12), 1301–1304. https://doi.org/10.1016/j.jaac.2023.05.023

Kaplan, R., & Saccuzzo, D. (2013). *Psychological testing: Principles, applications, & issues* (8th ed). Wadsworth, Cengage Learning. WorldCat.

Kusmaryono, I., Wijayanti, D., & Maharani, H. R. (2022). Number of Response Options, Reliability, Validity, and Potential Bias in the Use of the Likert Scale Education and Social Science Research: A Literature Review. *International Journal of Educational Methodology*, *8*(4), 625–637. https://doi.org/10.12973/ijem.8.4.625

Lambert, M. J. (2010a). Beyond progress feedback: The effects of clinical problem-solving tools. In *Prevention of treatment failure: The use of measuring, monitoring, and feedback in clinical practice* (pp. 135–172). American Psychological Association. https://doi.org/10.1037/12141-006

Lambert, M. J. (2010b). Predicting negative treatment outcome: Methods and estimates of accuracy. In *Prevention of treatment failure: The use of measuring, monitoring, and*

feedback in clinical practice (pp. 83–105). American Psychological Association. https://doi.org/10.1037/12141-004

Lewis, C. C., Boyd, M., Puspitasari, A., Navarro, E., Howard, J., Kassab, H., Hoffman, M., Scott, K., Lyon, A., Douglas, S., Simon, G., & Kroenke, K. (2019). Implementing Measurement-Based Care in Behavioral Health: A Review. *JAMA Psychiatry*, *76*(3), 324–335. https://doi.org/10.1001/jamapsychiatry.2018.3329

Malla, A., Iyer, S., Shah, J., Joober, R., Boksa, P., Lal, S., Fuhrer, R., Andersson, N., Abdel-Baki, A., Hutt-MacLeod, D., Beaton, A., Reaume-Zimmer, P., Chisholm-Nelson, J., Rousseau, C., Chandrasena, R., Bourque, J., Aubin, D., Levasseur, M. A., Winkelmann, I., … Vallianatos, H. (2019). Canadian response to need for transformation of youth mental health services: ACCESS Open Minds (Esprits ouverts). *Early Intervention in Psychiatry*, *13*(3), 697–706. https://doi.org/10.1111/eip.12772

Malla, A., Shah, J., Iyer, S., Boksa, P., Joober, R., Andersson, N., Lal, S., & Fuhrer, R. (2018). Youth Mental Health Should Be a Top Priority for Health Care in Canada. *The Canadian Journal of Psychiatry*, *63*(4), 216–222. https://doi.org/10.1177/0706743718758968

McGorry, P. D., Mei, C., Dalal, N., Alvarez-Jimenez, M., Blakemore, S.-J., Browne, V., Dooley, B., Hickie, I. B., Jones, P. B., McDaid, D., Mihalopoulos, C., Wood, S. J., El Azzouzi, F. A., Fazio, J., Gow, E., Hanjabam, S., Hayes, A., Morris, A., Pang, E., … Killackey, E. (2024). The Lancet Psychiatry Commission on youth mental health. *The Lancet Psychiatry*, *11*(9), 731–774. https://doi.org/10.1016/S2215-0366(24)00163-9

McMillan, S. S., Kelly, F., Sav, A., Kendall, E., King, M. A., Whitty, J. A., & Wheeler, A. J. (2014). Using the Nominal Group Technique: How to analyse across multiple groups.

Health Services and Outcomes Research Methodology, *14*(3), 92–108. https://doi.org/10.1007/s10742-014-0121-1

McMillan, S. S., King, M., & Tully, M. P. (2016). How to use the nominal group and Delphi techniques. *International Journal of Clinical Pharmacy*. https://doi.org/10.1007/s11096-016-0257-x

Morgan, H. (2022). Conducting a Qualitative Document Analysis. *The Qualitative Report*, *27*(1), 64–77. https://doi.org/10.46743/2160-3715/2022.5044

O'Cathain, A., & Thomas, K. J. (2004). "Any other comments?" Open questions on questionnaires – a bane or a bonus to research? *BMC Medical Research Methodology*, *4*(1), 25. https://doi.org/10.1186/1471-2288-4-25

O'Keeffe, L., O'Reilly, A., O'Brien, G., Buckley, R., & Illback, R. (2015). Description and outcome evaluation of Jigsaw: An emergent Irish mental health early intervention programme for young people. *Irish Journal of Psychological Medicine*, *32*(1), 71–77. https://doi.org/10.1017/ipm.2014.86

Parikh, A., Fristad, M. A., Axelson, D., & Krishna, R. (2020). Evidence Base for Measurement-Based Care in Child and Adolescent Psychiatry. *Child and Adolescent Psychiatric Clinics of North America, Measurement-Based Care in Child and Adolescent Psychiatry*, *29*(4), 587–599. https://doi.org/10.1016/j.chc.2020.06.001

Rajit, D., Reeder, S., Johnson, A., Enticott, J., & Teede, H. (2024). Tools and frameworks for evaluating the implementation of learning health systems: A scoping review. *Health Research Policy and Systems*, *22*(1), 95. https://doi.org/10.1186/s12961-024-01179-7

Riiskjaer, E., Ammentorp, J., & Kofoed, P.-E. (2012). The value of open-ended questions in surveys on patient experience: Number of comments and perceived usefulness from a hospital perspective. *International Journal for Quality in Health Care*, *24*(5), 509–516. https://doi.org/10.1093/intqhc/mzs039

Rosellini, A. J., & Brown, T. A. (2021). Developing and Validating Clinical Questionnaires. *Annual Review of Clinical Psychology*, *17*(1), 55–81. https://doi.org/10.1146/annurev-clinpsy-081219-115343

Scott, K., & Lewis, C. C. (2015). Using Measurement-Based Care to Enhance Any Treatment. *Cognitive and Behavioral Practice*, *22*(1), 49–59. https://doi.org/10.1016/j.cbpra.2014.01.010

Settipani, C. A., Hawke, L. D., Cleverley, K., Chaim, G., Cheung, A., Mehra, K., Rice, M., Szatmari, P., & Henderson, J. (2019). Key attributes of integrated community-based youth service hubs for mental health: A scoping review. *International Journal of Mental Health Systems*, *13*(1), 52. https://doi.org/10.1186/s13033-019-0306-7

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, *27*(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

Trivedi, M. H., Rush, A. J., Wisniewski, S. R., Nierenberg, A. A., Warden, D., Ritz, L., Norquist, G., Howland, R. H., Lebowitz, B., McGrath, P. J., Shores-Wilson, K., Biggs, M. M., Balasubramani, G. K., Fava, M., & STAR*D Study Team. (2006). Evaluation of Outcomes With Citalopram for Depression Using Measurement-Based Care in STAR*D: Implications for Clinical Practice. *American Journal of Psychiatry*, *163*(1), 28–40. https://doi.org/10.1176/appi.ajp.163.1.28

Viksveen, P., Cardenas, N. E., Berg, S. H., Salamonsen, A., Game, J. R., & Bjønness, S. (2024). Adolescents' involvement in mental health treatment and service design: A systematic review. *BMC Health Services Research*, *24*(1), 1502. https://doi.org/10.1186/s12913-024-11892-2

Watson, D., Mhlaba, M., Molelekeng, G., Chauke, T. A., Simao, S. C., Jenner, S., Ware, L. J., & Barker, M. (2023). How do we best engage young people in decision-making about their health? A scoping review of deliberative priority setting methods. *International Journal for Equity in Health*, *22*(1), 17. https://doi.org/10.1186/s12939-022-01794-2

Wolpert, M., Curtis-Tyler, K., & Edbrooke-Childs, J. (2016). A Qualitative Exploration of Patient and Clinician Views on Patient Reported Outcome Measures in Child Mental Health and Diabetes Services. *Administration and Policy in Mental Health*, *43*(3), 309–315. https://doi.org/10.1007/s10488-014-0586-9

Zhang, H., Sun, P., Wang, X., Yang, X., He, Y., Yang, T., Su, Y., Fu, Y., Li, Q., Sun, J., Liu, J., Murphy, J. K., Michalak, E. E., Lam, R. W., Chen, J., & Fang, Y. (2024). Perspectives on Enhanced Measurement-Based Care Among Healthcare Providers, Adults, Adolescent Patients with Major Depressive Disorder and Pediatric Family Members: A Multicenter Online Investigation. *Neuropsychiatric Disease and Treatment*, *20*, 2405–2421. https://doi.org/10.2147/NDT.S476484

Appendix A

Liste de recommandations

Idées des jeunes– des façons d'obtenir les idées des jeunes / leur opinions et suggestions sur les services
• Boite d'idées anonymes dans les cliniques
• Tablette avec questionnaire dans les cliniques
• Dans le questionnaire, espace libre pour mettre son opinion
• Mesurer des éléments concret (confiance avec équipe, confort du locale, accès aux service, sentiment d'avoir été aidé)
Variété de sondages – avoir une variété de formats pour répondre aux besoins divers
• Formulaires dans plusieurs langues (2)
• Pas de code QR: tablette / stand fixe dans aire ouverte pour remplir questionnaire
Pendant les rencontres - avoir des façons de recevoir les perspectives des jeunes qui ne sont pas seulement les intervenants
• Pair aidant: rencontre satisfaction avec jeune (au lieu d'un sondage)[1]
• Pair aidant / jeunes qui ont reçu service [peut être présent pour récolter de l'information] dans la rencontre[2]
Accès aux jeunes – des moyens pour avoir les opinions des jeunes même s'ils n'utilisent pas les services
• Informant dans les écoles / endroits que jeunes fréquentes (YMCA) pour donner accès aux jeunes / les informer des services
• Kiosk aire ouverte: sondage pour savoir ce que les jeunes désirent des services
Regroupement des idées et variétés de sondages - une catégorie qui fait le lien entre des moyens ouverts et des sondages fixes.

• Deux questionnaires diffèrent (première visite vs pas première visite)
• Questionnaires ajuste à qui on s'adresse[3]
Avec intervenant - qu'est-ce que les jeunes veulent que les intervenants fassent en lien avec la collecte d'information
• Suivi du dossier[4]
• Discussion plus fluide à travers les niveaux du service (jeunes, intervenant, services)[5]
Non classé
• Évaluer l'expérience de façon humaine (prioriser questions fermés)[6] (2)
• Moments stratégiques: adapter le moment du sondage selon le jeune (si jeunes pressé après la rencontre; biais d'acquiescement) (2)
• Questions doit absolument être révisés par le comité des jeunes (pour faciliter à comprendre / éviter abandon en cours de route)

Remarque : tous les éléments ont obtenu un seul vote des jeunes, sauf ceux indiqués par un (2), qui ont obtenu deux votes. Les catégories sont classées par ordre de popularité (les éléments ayant obtenu le plus de votes dans une catégorie sont présentés en premier).

1. Pair aidant rencontre avec le jeune après son contact avec l'intervenant afin d'évaluer son opinion sur les services reçus, ceci élimine la différence de pouvoir entre l'intervenant et le jeune s'il y a des enjeux avec le service reçu

2. Pair aidant présent pendant le recentre entre le jeune et l'intervenant, évalue les services offerts et fait part de ses conclusions aux services concernés une fois la réunion terminée.

3. Les questionnaires présenter pendant ou après les services son ajuster aux personnes à qui on s'adresse (questionnaire diffèrent si on s'adresse à un jeune ou la famille d'un jeune, ou des jeunes à différents moments de leur parcours)

4. Lorsqu'un questionnaire est employé pour aider à suivre les progrès / évaluer les symptômes, l'intervenant s'assure de faire un suivi avec le jeune
(bien communiquer toute l'information l'objectif du questionnaire et les progrès réalisés au cours des rencontres)

5. Expliquer aux jeunes l'objectif de la collecte d'information et des questionnaires employés pendants ses visites à AO, comment celles-ci peuvent être utilisées pour améliorer les services.

6. Utiliser un langage accessible, questionnaires divertissants qui ne ressemblent pas à des actes médicaux

CRediT Authorship Contributions Statement

Document Analysis

Srividya Iyer: Contributed to supervision and reviewing. **Tovah Cowan:** Contributed to formalising research question, knowledge translation, supervision and reviewing. **Kathleen MacDonald:** Contributed designing methodology, data collection, knowledge translation, supervision and reviewing. **Flavie Couillard:** Contributed to conceptualising research question, formal analysis, writing original draft, knowledge translation.

NGT Workshop

Srividya Iyer: Contributed to designing methodology, obtaining ethics approval, supervision and reviewing. **Tovah Cowan:** Contributed to designing methodology, obtaining ethics approval, data collection, supervision and reviewing. **Matt Dal Bianco:** Contributed to facilitating data collection. **Flavie Couillard:** Contributed to literature review, facilitating data collection, formal analysis, interpretation of results, writing original draft.