Canadian Psychiatric Association
Association des psychiatres du Canada

Original Research

Youth Perspectives on Integrated Youth Services: A Discrete Choice Conjoint Experiment

The Canadian Journal of Psychiatry / La Revue Canadienne de Psychiatrie
2022, Vol. 67(7) 524-533

DOI: 10.1177/07067437211044717
TheCJP.ca | LaRCP.ca
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Abstract

Objective: Integrated youth services (IYS) are an emerging model of care offering a broad range of mental health and social services for youth in one location. This study aimed to determine the IYS service characteristics most important to youth, as well as to determine whether different classes of youth have different service preferences, and if so, what defines these classes.

Methods: Ontario youth aged 14–29 years with mental health challenges were recruited to participate in a discrete choice experiment (DCE) survey. The DCE contained 12 attributes, each represented by 4 levels representing core characteristics of IYS models. To supplement the DCE questions, demographic information was collected and a mental health screener was administered. Preferences were examined, latent class analyses were conducted, and latent classes were compared.

Results: As a whole, participants endorsed the IYS model of service delivery. Among 274 youth, there were three latent classes: 1) the Focused Service (37.6%) latent class prioritized efficient delivery of mental health services. 2) The Holistic Services (30.3%) latent class prioritized a diverse array of mental health and social services delivered in a timely fashion. 3) The Responsive Services (32.1%) latent class prioritized services that matched the individual needs of the youth being served. Differences between classes were observed based on sociodemographic and clinical variables.

Conclusions: IYS is an acceptable model of care, in that it prioritizes components that reflect youth preferences. The differences in preference profiles of different groups of youth point to the need for flexible models of service delivery. Service design initiatives should take these preferences into account, designing services that meet the needs and preferences of a broad range of youth. Working locally to co-design services with the youth in the target population who wish to be engaged will help meet the needs of youth.

Keywords

youth, mental health, substance use, integrated services, patient preferences

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Background

There is an emerging acceptance that young people, from adolescents to young adults, are particularly vulnerable to mental health and substance use (MHSU) concerns. Most MHSU disorders initially emerge during adolescence and young adulthood[1]. Canadian prevalence data show recent increases in mental health challenges among youth[2]. However, among Canadian youth experiencing MHSU challenges, less than half actually seek professional help, with lower rates among ethnic minorities[3]. The youth MHSU service sector is fragmented, with many service access barriers: long wait times, a lack of service coordination and integration, unfacilitated transitions from child/adolescent to adult service systems, and stigma[4-8]. The pathways into care are complex and far from streamlined[9-11], creating additional service access barriers.

Integrated youth service (IYS) hubs or centers are an innovative model of youth service delivery designed to address system barriers to better serve vulnerable youth[12,13]. Burgeoning in many high-income countries, IYS constitute an international systems transformation movement. The prevailing ethos of IYS models is to break down silos by bringing together multiple areas of service delivery into one youth-focused, youth-friendly[7] space that is both appealing to youth and effective at addressing a wide variety of youth needs. Leading examples of IYS models in Canada include Youth Wellness Hubs Ontario[14], ACCESS Open Minds[15], and Foundry[16]. International examples include headspace[17] in Australia and Jigsaw[18] in Ireland, among others.

Our scoping review identified core characteristics of IYS models[12]. IYSs are described as early intervention models for youth and emerging adults, focusing on accessible and rapid access to coordinated, collaborative, evidence-informed services in youth-friendly settings[12]. They use evidence-based approaches such as cognitive-behavioral therapy, dialectical behavioral therapy, clinical staging models, solution-focused brief therapy, and peer support. Youth engagement in service design and delivery is also consistent across models.

While the interventions incorporated within IYS models have significant evidence behind them, for other components of care, the evidence base is in its infancy. For example, what types of services should be integrated into the model for optimal success? How should the models define "youth"? In what kind of setting should the services be located and how should they be accessed? These and other components of care can have considerable impact on the way the model is implemented and the extent to which youth access services and benefit from them. Further research is required to better guide IYS model developers in implementing the components with the best chances of success.

In developing appropriate interventions, it is paramount that service user voices be heard[19,20]. Historically, service user voices have not always been heard in service development, leading to interventions ultimately determined to be unethical or inappropriate[21]. When services are designed to be responsive to the preferences of service users, people are more likely to access them[22,23]. While applicable across the ages, engagement in youth service development is particularly important given rapidly changing realities facing young people today. There are increasing calls for the engagement of people with lived experience in research and service development[24-27], and specifically for youth engagement[22,23,27-32].

This study, conducted with youth engagement[27,33], responds to calls to engage youth in both research and service development, as well as the need to better understand core characteristics of IYS models from youth perspectives. Specifically, this study seeks youth perspectives on the service characteristics that are most important to include as IYS models are developed and scaled around the world, using a rigorous Discrete Choice Experiment (DCE) quantitative methodology that identifies relative priorities for certain service components over others.

Research questions. This DCE aims to identify 1) the IYS service characteristics most important to youth, and 2) whether different classes of youth have different service preferences, and if so, what defines these classes.

Method

Discrete Conjoint Experiment (DCE). The DCE methodology asks respondents to select product or service preferences packaged together in hypothetical scenarios[34]. This method thereby identifies the relative importance of different service preferences, as well as participant subgroups with different preference sets. To build the DCE tool, attributes are developed (i.e., broad categories of service characteristics), each defined by several levels (i.e., a range of specific options representing that attribute). International guidelines on DCE studies were followed for this study[34].

The project team included researchers and youth with lived/living expertise experienced in IYS research and implementation. Our team included one primary youth co-researcher and co-author, as well as multiple youth consulted as needed throughout the various stages of the project via our Youth Engagement Initiative[27]. Working collaboratively with the project team, including youth, we drafted attributes and levels drawn from the our scoping review of IYS core characteristics[12], highlighting service components such as service diversity, wait times, engagement, and setting. This process combined iterative discussions and the circulation of informal ranking surveys on draft attributes and levels to the project team using REDCap software[35,36] to progressively refine attributes and levels. The DCE was then piloted among four youth in two Canadian locations, including a large city and a rural area, for feedback and further refinement. Pilot participants completed the DCE with a research staff and talked through the

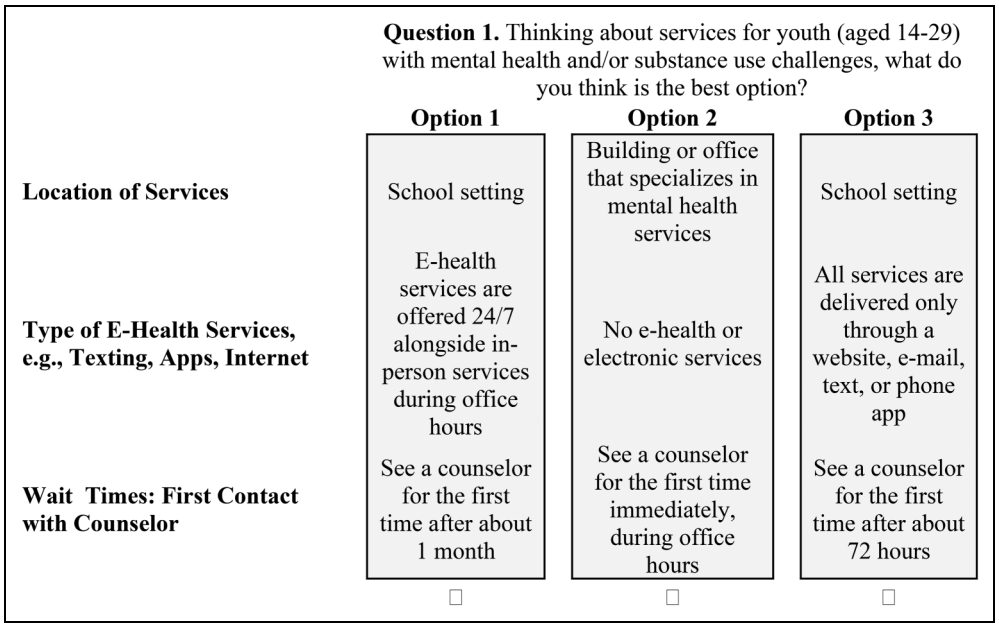

Figure 1. Sample discrete choice experiment (DCE) choice task. **Legend:** Sample choice task for the Discrete Choice Experiment survey, composed of three attributes (location of services, e-health services, wait times), each represented by a random selection of levels within that attribute. Participants selected a service option composed of one level of three attributes, thereby making trade-offs to determine the most preferred service option.

process, which helped to improve the instructions and look and feel.

The final DCE contained 12 attributes, with 4 levels each. We used a partial profile design requiring participants to select one of three service options in choice tasks (see Figure 1). Each participant completed one fixed and 13 random choice tasks. The DCE was administered using Sawtooth Software's SSI Web (version 9.8). The design was established in consultation with the Sawtooth Software consultants; the DCE algorithm was balanced in a manner that optimized orthogonality and attribute/level balance and maximized data robustness while minimizing participant burden. Using randomly generated attribute and level combinations, each participant received a unique version of the survey.

Participants & procedure. The project included samples of youth, caregivers, and service providers[37,38]; this paper presents youth findings. Flyers with survey links were distributed to organizations on an internal database of Ontario youth-serving organizations[39], with a request to circulate the flyer in their networks. The database, developed largely through thorough internet searches, includes an extensive range of organizations with various specific target populations, supporting diversity in recruitment. Eligible were Ontario youth aged 14 to 29 with lived experience of MHSU challenges. A total of 274 youth were recruited over a 5-month period in late 2019 to early 2020. The Centre for Addiction and Mental Health (CAMH) Research Ethics Board approved the study.

Measures. In addition to the DCE choice tasks, participants provided demographic information and answered service utilization questions. They also provided a self-rating of their mental health and physical health on a five-point scale ranging from poor to excellent, aligning with questions typically asked by Statistics Canada[40]. They completed the Global Appraisal of Individual Needs - Short Screener (GAIN-SS)[41], a 20-item screener that identifies the likelihood of meeting diagnostic criteria or requiring clinical support for internalizing, externalizing, and substance use disorders, and crime/violence concerns. The GAIN-SS has been validated among youth, with high reliability, high sensitivity, and specificity[42]. Endorsements of past-year symptomatology was retained in this study, as per scale guidelines.

Data analysis. The samples were described using descriptive statistics. For the DCE, utility estimates were calculated for each participant using Sawtooth Software's hierarchical Bayesian methods. We used standardized, zero-centered utilities, with the average utility range of attribute levels set to 100[43], where higher utilities indicate that the given level has higher relative value in relation to the levels within that attribute. The relative importance of each attribute is indicated by its proportional utility as a function of the total utility of all attributes.

We used latent class analyses to identify segments of participants with similar service preferences using Sawtooth Software's Latent Class module. For each latent class solution, five replications were calculated using different starting seeds. When the log-likelihood decreased by 0.01 or less, convergence was assumed. Attribute rankings are presented descriptively for

Table 1. Demographic Characteristics of Participants: $n = 274$.

Characteristic		*n (%)*
Age	14–20	73 (28.9%)
	21–23	71 (28.1%)
	24–29	109 (43.1%)
Gender	Man/boy	105 (38.5%)
	Woman/girl	149 (54.6%)
	Transgender or gender diverse	19 (7.0%)
Ethnicity	Caucasian	189 (70.8%)
	Asian	28 (10.5%)
	Black	14 (5.2%)
	Indigenous	9 (3.4%)
	Another ethnicity	27 (10.1%)
Socio-Economic Status	Live comfortably	76 (27.8%)
	Meet needs with a little left	133 (48.7%)
	Basic expenses met or less	64 (23.4%)
Employment	Full-Time	84 (32.1%)
	Part-Time	89 (34.0%)
	Unemployed	57 (21.8%)
	Other	32 (12.2%)
Student	Yes	154 (58.1%)
	No	111 (41.9%)
Region Size	Rural/Small (population 0–30,000)	69 (25.9%)
	Medium (population 30,001–99,999)	67 (25.2%)
	Large (population Over 100,000)	130 (48.9%)
Born in Canada	Yes	236 (89.4%)
	No	28 (10.6%)
First Language	English	243 (92.4%)
	Another language	20 (7.6%)
Physical Health	Good/Very good/Excellent	216 (78.8%)
	Fair/Poor	58 (21.2%)
Mental Health	Good/Very good/Excellent	165 (60.4%)
	Fair/Poor	108 (39.6%)
Education Level	High school or less	76 (28.7%)
	Some college/university	105 (39.6%)
	Graduate college/ university	84 (31.7%)

AIC = Akaike Information Criterion; *BIC* = Bayesian Information Criterion; *CAIC* = Consistent Akaike Information Criterion; *ABIC* = Sample size adjusted Bayesian Information Criterion.

the selected three-class model, which were interpreted and labeled via team discussions, including youth team members. Demographic and clinical characteristics were compared across the latent classes using chi-square tests, observing adjusted residuals when the chi-square was significant.

Table 3. Attribute Importance Scores and Rankings by Latent Class.

	Focused Service Latent Class		Holistic Services Latent Class		Responsive Services Latent Class	
	I	R	I	R	I	R
Core Health Services	5.11	9	14.60	1	11.69	3
Other Services	4.69	10	12.10	3	9.14	5
Caregiver Involvement	9.30	5	7.02	8	4.21	12
Peer Support	14.20	2	3.08	11	4.47	11
Cultural Sensitivity	15.85	1	6.84	9	12.36	2
E-Health Services	4.58	11	9.05	6	13.07	1
Age Range	6.65	8	3.05	12	7.84	7
Time of Appointments	7.86	6	7.66	7	10.65	4
Wait Times	7.40	7	10.29	4	7.64	8
Location	10.15	3	9.11	5	8.62	6
Engagement	4.09	12	4.48	10	5.47	9
Information Sharing	10.14	4	12.72	2	4.85	10

R = Rank of each attribute's importance score within informant and latent class; I = Importance score of each attribute; Relative importance scores represent a percentage of value assigned to each attribute relative to the other attributes.

Results

Table 1 presents participant characteristics. The sample consisted of over half (54.6%) young women/girls, 38.5% young men/boys, and 7.0% transgender or gender diverse youth. In all, 70.8% were Caucasian, with 10.5% Asian, 5.2% Black, 3.4% Indigenous, and 10.1% reporting other ethnicities. The majority were Canadian born and spoke English as a first language. There was diversity in the distribution of socioeconomic and employment statuses, region size, education, and mental and physical health. The mean age was 22.64 (SD = 4.49).

Latent class fit indices are presented in Table 2. Considering fit, class size, and interpretability, the three-class model was retained. Table 3 presents the attribute rankings and importance scores for the three-class model. The levels and utility values for the latent classes are presented in Supplementary Figure 1.

While the degree of level endorsement differed across latent classes, indicating different relative priority, commonalities across latent classes are observed. All latent classes preferred a wide range of core and supplementary services, with peer support and e-health services, in a specialized

Table 2. Fit Indices for Latent Class Solutions Ranging From one to Five Classes.

Number of Classes	Log-likelihood	Percent Certainty	AIC	CAIC	BIC	ABIC	Chi-Squared value
1	-3534.87	9.34	7141.75	7400.03	7364.03	7249.64	728.20
2	-3396.17	12.90	6938.35	7462.08	7389.08	7157.12	1005.60
3	-3350.72	14.06	6921.45	7710.63	7600.63	7251.11	1096.50
4	-3302.88	15.29	6899.76	7954.40	7807.40	7340.31	1192.19
5	-3257.30	16.46	6882.60	8202.69	8018.69	7434.03	1283.35

youth mental health setting. Rapid access, with evening and weekend hours, were preferred across classes. All latent classes endorsed service settings for youth aged 14 to 29 that also offer services for ages 29 and over. All classes endorsed working with the service provider to determine what information to share with caregivers, and involving caregivers in family counseling with the youth, with youth consent. All endorsed that youth and caregivers should play a leadership role within the organization, although relative priorities were low for this attribute.

Latent Class 1: Focused Services. The first latent class ($n = 103$; 37.6%) prioritized a Focused Service approach. The attributes most strongly driving their decisions were Cultural Sensitivity, Peer Support, Service Location, and Information Sharing with Caregivers.

The Focused Service latent class prioritized MHSU services in a specialized mental health setting, with some endorsement of a medical setting, as opposed to a youth café/recreation centre or school environment. This class also preferred that cultural background not be considered when selecting a service provider, although there was some endorsement of the availability of culturally based services and only a small negative utility value for choosing a service provider of a specific cultural background. They prioritized being matched with a peer support worker and having information shared with caregivers, with youth consent; they were willing to work with service providers to decide what information to share.

Latent Class 2: Holistic Services. Latent class 2 (83 youth, 30.3%) is a Holistic Service class, focusing on the breadth of services and ease of access. Decisions were driven most strongly by the attributes Core Health Services, Other Services, Information Sharing, and Wait Times.

The preferred level in the Core Health Services attribute was the combination of MHSU counseling, medication management, and physical/sexual health services. They also endorsed the level that included all of these services except physical/sexual health services, but did not endorse the levels that excluded medication management or substance use counseling. For the Other Services attribute, this latent class prioritized offering the widest variety of services. For the Information Sharing attribute, youth were willing to work with service providers to choose which information with caregivers, with no other level in this attribute receiving positive endorsement. For Wait Times, Holistic Services youth preferred to see a counselor immediately or after 72 h.

Latent Class 3: Responsive Services. The remaining 88 (32.1%) participants were in latent class 3, Responsive Services. This latent class preferred that services offered match the needs of individual youth and placed more importance on the attributes Cultural Sensitivity, E-Health Services, Core Health Services, and Time of Appointments.

Youth in this latent class strongly prioritized culturally sensitive and trauma informed services, and the ability to ask for a service provider from a certain cultural background. They also prioritized that supplemental e-health services be offered 24/7, and that appointment scheduling be possible via technology. They endorsed a wide array of services in the Core Health Services attribute. In the Time of Appointments attribute, they prioritized evening and weekend hours or 24/7 services.

Demographic and clinical characteristics by latent class. For the Focused Service latent class, participants were more likely to be male, have a lower socio-economic status, be in better physical health, have better self-rated mental health, and be from a rural/small urban region (Table 4). Participants from the Holistic Service latent class were more likely to come from large urban areas. Participants in the Responsive Services latent class tended to be female and urban, in poorer physical health, and with poorer self-rated mental health.

While the majority of youth across latent classes screened positive for an internalizing and an externalizing disorder, there was substantial differentiation by class. Youth in the Focused Service class were significantly more likely to screen positive for externalizing disorders, substance use disorders, crime/violence concerns, and concurrent mental health/substance use disorders. The Holistic Service latent class was significantly less likely to screen positive for externalizing disorders. The Responsive Services class was significantly less likely to have clinically relevant screening scores for substance use, crime/violence, and concurrent disorders.

The average number of times participants had spoken to a professional about MHSU issues in the past year was 5.0 (SD = 9.8) for the Focused Services latent class, 18.3 (SD = 38.4) for Holistic Services, and 13.7 (SD = 23.5) for Responsive Services. A one-way ANOVA, with post-hoc tests, shows a significant difference: $F(2,225) = 5.270$, $p = 006$. Youth in the Focused Services latent class had consulted a professional significantly less than those in the Holistic Services ($p = .017$) and Responsive Services ($p = .010$) classes, while the Holistic and Responsive Services latent classes did not differ ($p = .662$). The Focused Services latent class was significantly less likely to have previously used mental health services than those youth in the other latent classes; substance use and concurrent disorder services did not differ (Table 4).

Discussion

This study examined youth perspectives on the most important service characteristics for IYS models. Participants preferred rapid access to a diversity of core and supplementary services, with peer support and e-health services, and services offered during evening and weekend hours, as well as weekdays, located in mental health-focused settings. Strongest priorities differed across latent classes. A *Focused Services* latent class prioritized many aspects of IYS models, but also some aspects of a more traditional

Table 4. Demographic and Clinical Characteristics of Participants by Latent Class, $n = 274$.

		Focused Services Latent Class *n (%)*	Holistic Services Latent Class *n (%)*	Responsive Services Latent Class *n (%)*	*Chi-2*	*p*	*Cramer's V*
Age	14–20	28 (29.8%)	27 (34.6%)	18 (22.2%)	3.53	0.473	.08
	21–23	25 (26.6%)	19 (24.4%)	27 (33.3%)			
	24–29	41 (43.6%)	32 (41.0%)	36 (44.4%)			
Gender	Man/boy	63 (61.8%)[t]	28 (33.7%)	14 (15.9%)[a]	43.90	<0.001	0.28
	Woman/girl	35 (34.3%)[a]	50 (60.2%)	64 (72.7%)[a]			
	Transgender/gender diverse	4 (3.9%)	5 (6.0%)	10 (11.4%)[a]			
Ethnicity[1]	Caucasian	75 (76.5%)	56 (67.5%)	58 (67.4%)	2.47	0.291	0.10
	Asian	7 (7.1%)	9 (10.8%)	12 (14.0%)			
	Black	5 (5.1%)	6 (7.2%)	3 (3.5%)			
	Indigenous	6 (6.1%)	1 (1.2%)	2 (2.3%)			
	Other	5 (5.1%)	11 (13.3%)	11 (12.8%)			
Socio-Economic Status	Lives Comfortably	21 (20.6%)	26 (31.3%)	29 (33.0%)	4.32	0.115	0.13
	Lives less than Comfortably	81 (79.4%)	57 (68.7%)	59 (67.0%)			
Employment	Employed	73 (75.3%)	55 (67.9%)	53 (63.1%)	3.20	0.202	0.11
	Unemployed/Other	24 (24.7%)	26 (32.1%)	31 (36.9%)			
Student	Yes	64 (64.0%)	49 (61.3%)	41 (48.2%)	5.15	0.076	0.14
Region Size	Rural/Small urban	72 (73.5%)[a]	34 (42.0%)[a]	30 (34.5%)[a]	31.94	<0.001	0.35
	Large urban	26 (26.5%)[a]	47 (58.0%)[a]	57 (65.5%)[a]			
Education Level	High school or less	31 (31.0%)	23 (28.7%)	22 (25.9%)	0.59	0.745	0.05
	Post-Secondary	69 (69.0%)	57 (71.3%)	63 (74.1%)			
Born in Canada	Yes	89 (89.9%)	73 (91.3%)	74 (87.1%)	0.81	0.668	0.06
First Language	English	91 (92.9%)	74 (91.4%)	78 (92.9%)	0.18	0.914	0.03
Physical Health	Good/Very good/ Excellent	92 (89.3%)[a]	62 (74.7%)	62 (70.5%)[a]	11.34	0.003	0.20
	Fair/Poor	11 (10.7%)[a]	21 (25.3%)	26 (29.5%)[a]			
Mental Health	Good/Very good/ Excellent	81 (79.4%)[a]	44 (53.0%)	40 (45.5%)[a]	25.54	<0.001	0.31
	Fair/Poor	21 (20.6%)[a]	39 (47.0%)	48 (54.5%)[a]			
GAIN-SS Internalizing Disorder	High probability of diagnosis	93 (93.0%)	74 (94.9%)	79 (90.8%)	1.03	0.598	0.06
GAIN-SS Externalizing Disorder	High probability of diagnosis	86 (86.9%)[a]	50 (67.6%)[a]	62 (74.7%)	9.49	0.009	0.19
GAIN-SS Substance Use Disorder	High probability of diagnosis	65 (66.3%)[a]	34 (43.0%)	18 (22.2%)[a]	35.05	<0.001	0.37
GAIN-SS Crime/ Violence	High probability of diagnosis	51 (52.6%)[a]	19 (24.4%)	8 (9.8%)[a]	40.45	<0.001	0.40
Concurrent disorder*	High probability of diagnosis	65 (63.1%)[a]	34 (41.0%)	18 (20.5%)[a]	35.43	<0.001	0.36
Services used	Mental health	44 (44.9%)[a]	59 (72.8%)[a]	62 (72.9%)[a]	20.60	<0.001	0.28
	Substance use	9 (9.2%)	8 (9.9%)	7 (8.2%)	0.14	0.934	0.02
	Concurrent mental health and substance use	18 (18.4%)	17 (21.0%)	14 (16.5%)	0.56	0.754	0.05

*Concurrent disorder is defined as positive screening for both a mental health and substance use disorder.
[a]Superscript denotes that post hoc tests indicate cell proportions are significantly different from one another. GAIN-SS = GAIN Short Screener;.
[1]Significance test conducted on Caucasian versus other ethnicities due to small sample sizes in diverse ethnicities.

MHSU service approach. A *Holistic Services* latent class prioritized rapid access to a wide range of core and supplementary services. A *Responsive Services* latent class prioritized culturally sensitive core health services during evenings and weekends, with supplementary e-health services.

Broadly speaking, these findings support the core characteristics of IYS models[12], i.e., rapid, flexible access to a diversity of youth-oriented services. However, the alignment with IYS components was slightly lower for about a third of the sample. Those youth were more likely to be boys/young men and had the highest level of need, but the highest level of self-rated mental

health and less service access experience, and were more likely to be in rural settings where services are scarce. It may be that they were unaware of the extent of their mental health challenges, or that their goals were to obtain services for the first time according to the existing system, with less exposure to a diverse range of service options being slower to reach rural settings. Their strong preference for peer support is an exception; they might consider this a feasible service option in rural settings with scarce resources. In contrast, the other latent classes of youth might be more interested in improving upon traditionally existing services which they have already accessed. IYS models are designed for youth with mild to moderate needs[12,13]. It is important that they offer services across the continuum of care, reaching youth with complex needs who have not previously accessed services.

All three latent classes of youth preferred services in specialized mental health settings, while many endorsed youth café or recreation centre settings, but not hospital settings. All latent classes were opposed to school settings. This provides important guidance in service development. While the school setting may have advantages for reaching youth and supporting both their educational success and mental health[44], it may be that stigma is felt more in the school setting[45], as opposed to community-based service settings where youth meet other youth experiencing challenges. Confidentiality might also be more of a concern in schools, given parental access to educational records for minors. While schools might be a positive location for prevention and promotion activities[46], a promising model might include strong MHSU literacy among school staff[47] to support linkages and referrals to community-based services. However, recruitment did not occur in school settings, but rather via mental health service settings, which may have influenced the findings.

Many IYS models focus on age ranges of approximately 12–24[12,13], yet this was not a youth preference. All latent classes endorsed locations with services for adults, while two also endorsed 12–29, and one endorsed settings including young children. This is an area of consideration for IYS model developers. However, the largest proportion of participants were over the age of 24, which may explain this finding. Nevertheless, when establishing age ranges, IYS model developers should consider extending age ranges to best accommodate transitional-aged youth.

Importantly, youth and caregiver engagement was not prioritized, yet is a core component of IYS models[12] and youth-friendly services[7] with emerging evidence for its positive impacts[48-50]. It may be that participants without engagement experience are not aware of the positive impacts of youth and caregivers engagement. Further research is required to understand for whom and in what contexts engagement is beneficial. Other low endorsements varied considerably across latent classes, with attributes that are the most important to some youth being among the least important to others. This highlights the importance of offering diversified, flexible services to meet different service preferences.

Results were brought to members of the CAMH Youth Engagement Initiative (YEI) for their perspectives[25,33]. The preferences of participants as a whole and of the Holistic Services and Responsive Services latent classes in particular resonated with YEI members. They suggested two reasons for the lack of preference for a school setting: 1) school-based services may be more stigmatizing, as other students may see the student go to the MHSU services, and 2) students may have negative past experiences of school-based care from staff who are insufficiently equipped to handle MHSU challenges. Regarding the Focused Services latent class, YEI members hypothesized that the preference for not considering cultural background might be due to more homogeneity among rural populations: many members of this class were Caucasian, and those who were not may be more disenfranchised from their identities given the culturally homogenous rural setting, or may have been traumatized within their cultural group, therefore preferring to avoid cultural labels that would identify them as 'other.' YEI members further proposed that the Focused Services latent class may want conventional services because this is what they are more aware of, since innovative models of service delivery are slower to reach rural areas. They suggested that conventional services might be more acceptable to this group since they are less foreign to them, which would reduce hesitancy in the face of stigma.

Limitations

This study includes a non-random sample of Ontario youth who self-identified MHSU challenges and who were reached via youth-serving organizations that received our study flyer; participants may not be representative of all Ontario youth who could benefit from services, e.g., those who were not connected with such services. A larger, more diverse sample would improve generalizability. Oversampling diverse populations may yield more nuanced insights about culture preferences. Our sample was generally similar to the overall population in Ontario in terms of proportion of visible minority individuals[51]. However, caution must be exercised in taking our findings to undermine the importance of cultural safety and appropriateness. Our methodology, which required trade-offs between a limited number of options around this dimension, may have limited deeper insights on this topic. The DCE attributes and levels prioritized were dependent on the structure of the DCE survey; youth may have priorities that were not assessed. Since completing a DCE requires a substantial degree of cognitive capacity, the study may have missed participants with more significant mental health challenges.

Conclusions

As a whole, youth endorse the rapidly emerging IYS model of service delivery. IYS is an acceptable model of care, as

it prioritizes components that reflect youth preferences. IYS developers should continue to prioritize rapid access to an array of services in specialized one-stop-shop youth-friendly settings, incorporating e-health services and peer support, while considering other findings to help hone their models. Health system funders are called on to support the scaling of IYS models. Working locally to co-design services with the youth in the target population who wish to be engaged will help meet the needs of youth.

Acknowledgments

We would like to thank the Youth Engagement Facilitators at the Centre for Addiction and Mental Health for their support on this study. We also thank all of the members of the broader research team for their support. We further thank the participants for taking the time to participate in this study.

Author Contributions

- JH contributed to the design and conduct of the study, the analysis of the data, the interpretation of the findings, and drafted the manuscript.
- LH contributed to the design and conduct of the study, the analysis of the data, the interpretation of the findings, and drafted the manuscript.
- SI contributed to the design of the study and edited and approved the manuscript.
- EH contributed to the design and conduct of the study and edited and approved the manuscript.
- KD contributed to the design and conduct of the study and edited and approved the manuscript.
- SM contributed to the design of the study and edited and approved the manuscript.
- LT contributed to the design of the study and the analysis and interpretation of the data, and edited and approved the manuscript.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Canadian Institutes of Health Research.

Ethics

Ethics approval was obtained from the Research Ethics Board of the Centre for Addiction and Mental Health. Informed consent was obtained from all participants.

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Supplemental Material

Supplemental material for this article is available online.

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