RESEARCH ARTICLE

Canadian Rural/Remote Primary Care Physicians Perspectives on Child/Adolescent Mental Health Care Service Delivery

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Abstract

Introduction: Primary Care Physicians (PCP) play a key role in the recognition and management of child/adolescent mental health struggles. In rural and under-serviced areas of Canada, there is a gap between child/adolescent mental health needs and service provision. **Methods:** From a Canadian national needs assessment survey, PCPs' narrative comments were examined using quantitative and qualitative approaches. Using the phenomenological method, individual comments were drawn upon to illustrate the themes that emerged. These themes were further analyzed using chi-square to identify significant differences in the frequency in which they were reported. **Results:** Out of 909 PCPs completing the survey, 39.38% (n = 358) wrote comments. Major themes that emerged were: 1) psychiatrist access, including issues such as long waiting lists, no child/adolescent psychiatrists available, no direct access to child/adolescent psychiatrists; 2) poor communication/continuity, need for more systemized/transparent referral processes, and need to rely on adult psychiatrists; and, 3) referral of patients to other mental health professionals such as paediatricians, psychologists, and social workers. **Conclusions:** Concerns that emerged across sites primarily revolved around lack of access to care and systems issues that interfere with effective service delivery. These concerns suggest potential opportunities for future improvement of service delivery. **Implications:** Although the survey only had one comment box located at the end, PCPs wrote their

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comments throughout the survey. Further research focusing on PCPs' expressed written concerns may give further insight into child/adolescent mental health care service delivery systems. A comparative study targeting urban versus rural regions in Canada may provide further valuable insights.

Key Words: primary care, rural and remote, service delivery, access to care, systems issues

▌ Résumé

Introduction: Les médecins de soins de première ligne (MSPL) jouent un rôle essentiel dans la reconnaissance et la prise en charge des problèmes de santé mentale des enfants/adolescents. Dans les régions rurales et sous-desservies du Canada, il y a un écart entre les besoins de santé mentale des enfants/adolescents et la prestation de services. **Méthodes:** Tirés d'un sondage canadien national évaluant les besoins, les commentaires narratifs des MSPL ont été examinés à l'aide d'approches quantitatives et qualitatives. Au moyen de la méthode phénoménologique, les commentaires individuels ont servi à illustrer les thèmes dégagés. Ces thèmes ont ensuite été analysés avec le chi-carré afin d'identifier les différences significatives de la fréquence à laquelle ils étaient mentionnés. **Résultats:** Sur les 909 MSPL qui ont répondu au sondage, 39,38% (n = 358) ont écrit des commentaires. Les thèmes majeurs qui se sont dégagés étaient: 1) l'accès aux psychiatres, notamment des questions comme les longues listes d'attente, pas de pédopsychiatres disponibles, pas d'accès direct aux pédopsychiatres; 2) mauvaise communication/continuité, besoin de processus plus nombreux d'aiguillage systémique/transparent, et besoin de consulter des psychiatres pour adultes; 3) adresser les patients à d'autres professionnels de la santé comme les pédiatres, les psychologues et les travailleurs sociaux. **Conclusions:** Les préoccupations soulevées dans les divers centres s'articulaient autour de l'accès aux soins et des problèmes des systèmes qui empiètent sur la prestation efficace de services. Ces préoccupations suggèrent des possibilités pour l'amélioration future de la prestation de services. Implications: Bien que le sondage n'ait offert qu'un espace pour les commentaires à la fin, les MSPL ont écrit leurs commentaires sur tout le sondage. D'autres recherches portant sur les commentaires écrits des MSPL peuvent offrir d'autres idées sur les systèmes de prestation de services de santé mentale aux enfants/adolescents Une étude comparative ciblant les régions urbaines par rapport aux régions rurales du Canada peut fournir un apport valable.

Mots clés: soins primaires, rural et éloigné, prestation de services, accès aux soins, problèmes des systèmes.

Introduction

Studies have consistently shown that child and adolescent mental health problems in rural areas receive far fewer services when compared to their urban counterparts, with some studies finding as few as 20% of rural children and adolescents being treated for their mental disorders (Hilty, Yellowlees, Sonik, Derlet, & Hendren, 2009; Lutfiyya, Bianco, Quinlan, Hall, & Waring, 2012; Tsao, Dobalian, Wiens, Gylys, & Evans, 2006). Systems-related barriers present major challenges to providing psychiatric and mental health care to rural patients. Tsao et al. (2006) and Lutfiyya et al. (2012) grouped these issues under the headings of availability, continuity, and delivery of services, whereas Smalley et al. (2010) summarized them as accessibility, availability, and acceptability. Campo, Bridge, and Fontanella (2015) classified similar struggles as structural and attitudinal barriers. Other barriers that have been identified include information exchange (College Médecins du Quebec, 1999), and the need for further training of Primary Care Physicians (PCPs) in diagnosis and other skills (Alexander & Fraser, 2008; Stretch et al., 2009; Shaprio et al., 2010; Steele et al., 2012), as well as lack of coordination of clinical services (Gamm, Stone, & Pittman, 2010; Warfield & Gulley, 2006). Careful examination of this literature suggests commonalities in the barriers and challenges identified.

Although much of the literature is in agreement, few studies have examined major barriers to the provision of rural mental health care services from the perspective of PCPs. Steele et al.'s Canadian national needs assessment survey (2012) contained primarily scale-based questions which asked PCPs about their training needs in child and adolescent mental health. The survey also contained an open-ended question which offered opportunities for hand-written comments. Strikingly, when given the opportunity to comment in a more qualitative fashion about their experiences regarding rural/remote child and adolescent mental health care, PCPs' comments primarily reflected their perceived barriers and challenges to accessing care, as opposed to the primary focus of the survey which requested their feedback regarding their training and referral needs. The purpose of this paper was to conduct an examination of volunteered "secondary" comments offered by PCPs that were collected during the Steele et al. (2012) study. As such the analysis was exploratory in nature, and the data that were utilized are "secondary" in that they were not primarily or systematically collected. However, they provided an interesting insight into PCPs' concerns regarding the mental health care system. A mixed-methods approach was used to examine these responses from the open-ended question and hand-written comments the PCPs inserted throughout their surveys.

Table 1. The Society of Rural Physicians of Canada definition of rural and/or remote (Teperman, Administrative Officer, Society of Rural Physicians of Canada, 2011).
The Society of Rural and Physicians of Canada defines rural and/or remote by the following criteria:
1) The MIDDLE digit of the FIRST 3 digits in the postal code is "0". "0" is defined as rural. (Canada Post's Definition of Rural).
2) Postal codes in Census Agglomerations of 10,000 or less (defined by Statistics Canada).
3) Postal codes where it is more than one hour to a tertiary care centre.
4) All Territories are defined as remote.
5) Medically rural is defined with Postal codes in areas near to the borderline of distance to a tertiary care centre where the local hospitals provide a broader range of medical services i.e. surgery, obstetrics, etc. (Steele et al., 2012)

Method

This study defined PCPs as family physicians (FPs), general practitioners (GPs) and paediatricians (PEDs) who are currently licensed and practicing in rural and remote areas across Canada. Rural PCPs' contact information was gathered from the Society of Rural Physicians of Canada (SRPC), as their definition of rural and/or remote applied to all of Canada (Steele et al., 2012). Despite SRPC being able to select from their database physicians who are family physicians, general practitioners, and paediatricians, their database did not specify the PCPs who are practicing in child and adolescent mental health. The SRPC database is updated once a year and relies on physicians' voluntarily notifying SRPC of changes in their practice location, types of patients seen, or retirement status (Steele et al., 2012). Please see Table 1 for the SRPC definition of rural and/or remote.

The data were obtained from a Canadian national needs assessment survey (Steele et al., 2012) of PCPs in rural and underserviced areas regarding their training and referral needs, which also included additional surveys from Kingston Ontario that arrived after completion of the paper. This increased the number of mail-outs from 3,409 with a sample size of n=847 (24.9%) (Steele, et al., 2012) to 3,622 mail-outs with a sample size of n=909 (25.9%).

To maximize the response rate the Dillman procedure (Dillman, 2000) was utilized (Steele et al., 2012). This consisted of five mail-outs with seven working day intervals: first mail-out, an introductory letter; second mail-out, a cover letter, letter of information, paper survey, and a pre-addressed postage paid envelop; third mail-out, a reminder letter about the study; fourth mail-out, a cover letter, letter of information, paper survey, and a pre-addressed postage paid envelop; and fifth mail-out, the final reminder letter (Steele et al., 2012).

To increase efficiency of analyses and to ensure sufficient sample size for chi-square quantitative analyses, the responses from the individual provinces were collapsed into regions as follows: Western (British Columbia and Alberta); Central (Saskatchewan and Manitoba); Ontario (Southwestern Ontario, Ottawa Area, and Kingston Area); Atlantic (Newfoundland & Labrador, New Brunswick, Prince Edward Island, and Nova Scotia); and Northern (Northwest Territories, Yukon, Nunavut, and Nunavik Quebec) (Steele et al., 2012). All sites received approval or acknowledgement from their respective research ethics boards to conduct the study. Each site was responsible for mailing correspondence to rural/remote physicians in their area (Steele et al., 2012).

Responses from the open-ended question, and comments written throughout the survey, were transcribed. Data for each region were examined separately and combined across Canadian regional sites. The phenomenological method was used for the qualitative analysis of participants' expressed opinions, leading to a descriptive meaning structure of those participants' perspectives regarding child and adolescent psychiatric service delivery (Giorgi, 1997; Kjaer, Kodal, & Qvesel, 2010; Kleiman, 2004). Using content analysis, themes were highlighted when there was a significant repetition of related words and significant repetition of related comments. Data were then examined seeking the meaning units in physicians' statements. Based on these meaning units, themes were identified and highlighted (Table 2). Establishing full inter-rater reliability was not possible due to resource constraints. However, two investigators worked together, and if a discrepancy within the coding was found, the two researchers discussed the coding and came to a consensus. Coding was carried out in five rounds. Initially all comments were reviewed by one researcher and initial coding was assigned, after which the second researcher reviewed and the two met to discuss and revise. The first researcher then went through the comments again and reviewed them. If some of the coding had been revised, the whole original comment was reviewed. If a change was needed, it was documented and the two researchers meet to discuss and revise.

Coding counts for each theme were transferred into Statistical Package for the Social Sciences (SPSS) software and chi-square analyses were used to determine if the difference in frequency of endorsement of particular themes was statistically significant. It is important to note that the frequencies represent "instances" of a comment made by a PCP. It was possible for a PCP to have made multiple comments within a specific theme in their survey, but that was counted as only one "instance" for the purposes of the

Table 2. Themes and associated meaning units coded and examples of comments from rural/remote PCPs concerning child/adolescent mental health care service

THEME 1, Psychiatrist Access:

Associated Meaning Units: Long waiting lists; Long waiting lists or waiting times for child/adolescent services; No direct access to child and adolescent (c/a) psychiatrist; No/few available c/a psychiatrists; Uses telemedicine or video/online for consults; Referrals refused by c/a psychiatrist: Physician's referrals are refused or canceled by c/a psychiatrists.

Examples of Comments with the most frequency count for theme, "Psychiatrist Access"

"Would not refer to for child/adolescent psychiatrists because wait times are too long; unavailable in our region; must travel >1hr and then they are not available anyway"; "Too few psychiatrists in our area who are 1) open to accept new patients of any age and 2) even fewer willing to accept children/adolescents."; "There is a visiting child psychiatrist but he does not come often and referral process is onerous so I gave up using his services.".

THEME 2, Process Issues:

Associated Meaningful Units: Lack of government funding; Undervaluing of mental health shown through funding; Poor communication, continuity and collaboration: No communication, continuity of care, and/or collaboration of care in this field; More systemized and transparent referral processes such as: Lack of clarity regarding referral processes; Need to rely on adult mental health professionals such as having to refer to professionals who work with adults (i.e., such as adult psychiatrists, inappropriate reliance on adult medications).

Examples of Comments with the most frequency count for theme, "Process Issues"

"Sense that mental health is devalued; segregated; and soiled in terms of funding."; "No meaningful follow-ups with cases."; "Need more consultation (initial) from psychiatrist and less of their time given to follow-up…we can do that if given a proper initial/yearly consult."; "Even with a referral no continuity of care is available since we are remote."; "Child/adolescent psychiatrist should give us advice on what to do while waiting."; "Need to improve access for patients in smaller communities to the services available in larger centres for child/adolescent psychiatric care!"; "Need to know when/how/who to refer to psychiatrist."; "Helping us access advice in crisis situations i.e., - making on call Child/adolescent psychiatrists aware of the sketchy resources in rural areas and need for reassuring advice in these crisis situations.".

THEME 3, Resource Needs:

Associated Meaningful Units: Need Mental Health Resources such as more resources (e.g., psychologists, therapists, tele-health, etc.); No access to psychiatry or other mental health services; Need more knowledge/Information on mental health issues/topics; Have limited information/knowledge and/or want more information/knowledge regarding the field (e.g., school issues; specific diagnoses; non-pharmacological treatment; handouts, websites; prevention strategies; treatment); Need inpatient beds: Need for inpatient beds for this population.

Examples of Comments with the most frequency count for theme, "Resource Needs"

"More counselling services in community that can be accessed by low income families."; "Need for psychologists and other mental health workers skilled at working with kids."; "No services for counselling; behaviours therapy etc. - management of patients difficult."; "Handouts, websites of patient teaching would be helpful…."; "Make checklists and standard questionnaire available and perhaps part of standard practice just like e.g. MMSE in assessment of elderly with dementia, etc.".

THEME 4, Professional Development:

Associated Meaningful Units: Desire for professional development; Interested in continuing medical education and will participate in continuing medical education; No desire for professional development: No not interested in continuing medical education or no time to participate in continuing medical education; Mental health is a specialized population requiring more skill; Stating that mental health should be and is specialized.

Examples of Comments with the most frequency count for theme, "Professional Development"

"CME would have to be timely; very efficient; packed with knowledge."; "I believe in our community will benefit from having regular CME sessions for child/adolescent psychiatry."; "I do not currently have opportunities to increase my confidence/competence because personal and family responsibilities hard to do CME."; "There is only so much time to learn new skills. Need to prioritize for the type of practice I have."

THEME 5, Refer to Other Professionals:

Associated Meaningful Units: Refer to paediatricians; Referrals made only or sometimes to paediatricians; Refer to mental health professionals other than child/adolescent psychiatrists; Refer to psychologists, social workers, other specialists, etc.

Examples of Comments with the most frequency count for theme, "Refer to Other Professionals"

"We have a shortage of child psychiatrists and easier access to paediatricians."; "Paediatrician quite stable coming regularly, knowing patients, easily available by phone between visits."; "Child psychologists and school psychologists take the slack and I refer to them and rely on them."; "I often refer to psychologists who are much easier to access for adolescents (not children) and family can afford."; "Attention problems; behavioural; eating; developmental seen in multidisciplinary clinic."; "I refer to psychologists frequently.".

Table 2. continued
THEME 6, Workload:
Associated Meaningful Units: Services are too overloaded in physician practice; Child/adolescent mental health field is exhausting and draining of physician's practice.
Examples of Comments with the most frequency count for theme, "Workload"
"I am in under doctored area. Time to do anything is an enormous factor."; "Yes I need more continuing professional development; however, there are many complex areas in rural medicine that require CME; Rural doctor cannot be expected to be the new/fill-in specialist in every area."; "Emotional draining/drainage are the fundamental reasons for not further engaging in child (and adult) mental health issues."; "This field drains time/resources."

Table 3. Response rates for survey and comments by region, site and across Canada

Region	# Surveys mailed out[2]	Response rate for surveys[1]		Response rate for comments	
		# Surveys returned			
		Province	Response rate per region # (%)	Province	Response rate per region # (%)
Western	British Columbia (BC): 464	BC (n = 123)	n = 247	BC (n = 43)	n = 88
	Alberta (AB): 671	AB (n = 124)	(21.76%)	AB (n = 45)	(35.63%)
Central	Saskatchewan (SK): 173	SK (n = 48)	n = 155	SK (n = 19)	n = 60
	Manitoba (MN): 463	MN (n = 107)	(24.37%)	MN (n = 41)	(38.71%)
Ontario	Southwestern Ontario (SWON): 425	SWON (n = 128)	n = 253	SWON (n = 76)	n = 124
	Ottawa Ontario Area (OTON): 203	OTON (n = 63)	(30.12%)	OTON (n = 27)	(49.01%)
	Kingston Ontario Area (KGON): 212	KGON (n = 62)		KGON (n = 21)	
Atlantic	Nova Scotia (NS): 368	NS (n = 96)	n = 215	NF (n = 26)	n = 69
	New Brunswick (NB): 124	NB (n = 44)	(24.71%)	NS (n = 25)	(32.09%)
	Prince Edward Island (PE): 20	PE (n = 9)		NB (n = 15)	
	Newfoundland & Labrador (NF): 358	NF (n = 66)		PE (n = 3)	
Northern	Nunavik Quebec (NQC): 32	NQC (n = 21)	n = 39	NQC (n = 5)	n = 17
	NW/Yukon/Nunavut (NWYN): 108	NWYN (n = 18)	(27.86%)	NWTN (n = 12)	(43.59%)
TOTALS	Total mail-outs for survey 3,621	Overall survey response rate n = 909 (25.10%)		Overall response rate for comments n = 358 (39.38%)	

1. Steele et al. (2012). Canadian national needs assessment, plus surveys from the Kingston Ontario Area (n = 62) were added to the n size, increasing the n size.

2. Physicians who were no longer at the given address (e.g., retired, moved, deceased), duplicate name, and who did not work with children/adolescents were excluded from the study (sample size) (Steele et al., 2012).

frequency count. The frequency with which a theme was reported implied that it had a greater priority for the PCPs who made comments on the survey, and as such, was interpreted as more important than the less frequently endorsed themes. Chi-square analyses were used to determine whether the frequency of responses were statistically different across regions for the national findings, as well as within each of the regions. Depending on their patterns of significant differences, some themes were clearly present at only one level of priority, whereas others were present at multiple levels, which reduced the relative ranking importance. Thus rankings (and their importance) reported in this paper were established by arithmetic frequency differences (using chi-square analyses) between thematically grouped comments made by PCPs.

Results

Response Rate

Out of 909 rural PCPs who completed surveys, the percentage of surveys that contained narrative comments was 39.38% (n = 358). Percentages of comments within each region were as follows: 35.63% (n = 88) in the Western Region; 38.71% (n = 60) in the Central Region; 49.01% (n = 124) in the Ontario Region; 32.09% (n = 69) in the Atlantic Region; and 43.95% (n = 17) in the Northern Region. For details regarding the response rates for survey mail-out and percentage of narrative comments from PCPs who completed the surveys please refer to Table 3.

Table 4. Levels of importance reflecting primary care physicians' concerns in child/adolescent mental health care service delivery

Levels of Importance[1]	Across all regions (n = 358) Theme (# count[2])	Western (n = 88) Theme (# count)	Central (n = 60) Theme (# count)	Ontario (n = 124) Theme (# count)	Atlantic (n = 69) Theme (# count)	Northern (n = 17) Theme (# count)
Level I: Most Important	Resources (143) Psychiatrist Access (139)	Psychiatrist Access (32) Process Issues (30) Resources (23)	Resources (25) Psychiatrist Access (22) Process Issues (14) Refer to Other Professionals (13)	Resources (55)	Resources (30) Psychiatrist Access (29) Refer to Other Professionals (21) Process Issues (19)	Resources (10)
Level II: Important	Process Issues (107) Refer to Other Professionals (90)	Refer to Other Professionals (18) Professional Development (14)	Professional Development (4) Workload (1)	Psychiatrist Access (51)	Professional Development (9)	Process Issues (6) Psychiatrist Access (5)
Level III: Somewhat Important	Professional Development (53)	Workload (2)	None	Process Issues (38) Refer to Other Professionals (36)	Workload (1)	Professional Development (3) Refer to Other Professionals (2) Workload (2)
Level IV: Somewhat least Important	Workload (13)	None	None	Professional Development (23)	None	None
Level V: Least Important	None	None	None	Workload (7)	None	None

1. Levels of importance are in descending order.

2. Level of importance is determined through chi-square analysis, based on statistically significant difference between frequencies. Depending on their patterns of significant differences, some themes were clearly present at only one level of priority for PCPs, whereas others were present at multiple levels.

Trans-Canadian Overall Results (n = 358)

The overall themes that emerged as a result of the narrative comments are contained in Table 2. Based on the frequency of themes endorsed by rural/remote PCPs regarding child/adolescent mental health service delivery, Table 4 contains a detailed breakdown of the results of the chi-square analyses identifying the levels of importance of various themes. Examples of comments PCPs expressed for each theme are located in Table 2, and actual chi-square and p-value results are located in Table 5.

Across Canada (i.e., across regions and provinces), the most important issues PCPs expressed were associated with the themes of Resources (n = 143) and Psychiatrist Access (n = 139). The former included insufficient availability of mental health professionals (e.g., psychologists, therapists), insufficient mental health knowledge or information (e.g., therapy, handouts, websites, prevention strategies), and insufficient inpatient beds access. The latter included concerns surrounding long wait lists, indirect access to or lack of availability of psychiatrists, and refusal of their referrals by psychiatrists. On a more positive note, the theme also included PCPs expressing the benefit of tele-psychiatry consultation along with a desire for increased availability of that resource. Other emerging themes concerned struggles

with Process Issues (n = 107) and Referrals to Other Professionals (n = 90). Process Issues included frustration with the lack of funding for mental health relative to other areas of health care, the need for more systematized and transparent referral processes, frustration with having to rely on adult mental health professionals to treat children and adolescents due to lack of availability of child-specific professionals, and poor continuity, communication, and collaboration in working with psychiatric patients. The Referral to Other Professionals theme reflected PCPs' tendency to refer to either paediatricians or mental health professionals, such as psychologists and social workers, rather than psychiatrists.

A less frequently reported, but emerging, theme was Professional Development (n = 53). This theme reflected PCPs' recognition of mental health as a highly specialized area of practice, and their desire for further education and enhanced skill development in the area of child and adolescent psychiatry. The least frequent theme to emerge was Workload (n = 13), reflecting PCPs' comments regarding feelings of being overloaded in their practice. Interestingly, other PCPs' comments within the themes Professional Development and Workload reflected a disinterest in further psychiatric education and a lack of desire to be involved

Table 5. Chi-square and p-values associated with the themes and levels of importance	
Region	Themes from rural/remote primary care physicians' (PCPs) concerning child/adolescent mental health care service order in level of importance with chi-square and p-values[1,2]
ACROSS ALL REGIONS (n=358)	LEVEL ONE: Resources (143) vs. psychiatrist access (139), $X^2 = 0.05$, $p = 0.81$. Psychiatrist Access (139) vs. process issues (107), $X^2 = 4.16$, $p = 0.04$. LEVEL TWO: Process Issues (107) vs. refer to other professionals (90), $X^2 = 1.47$, $p = 0.23$. Refer to other professionals (90) vs. professional development (53), $X^2 = 9.57$, $p = 0.00$. LEVEL THREE: Professional development (53) vs. workload (13), $X^2 = 24.24$, $p = 0.00$. LEVEL IV: Workload (13).
WESTERN (n=88)	LEVEL ONE: Psychiatrist access (32) vs. process issues (30), $X^2 = 0.07$, $p = 0.80$. Process issues (30) vs. resources (23), $X^2 = 0.93$, $p = 0.34$. Resources (23) vs. refer to other professionals (18), $X^2 = 0.62$, $p = .44$. Psychiatrist access (32) vs. refer to other professionals (18), $X^2 = 3.90$, $p = 0.05$. Process issues (30) vs. professional development (14), $X^2 = 5.82$, $p = 0.02$. LEVEL TWO: Refer to other professionals (18) vs. professional development (14), $X^2 = 0.50$, $p = 0.48$. LEVEL THREE: Workload (2).
CENTRAL (n=60)	LEVEL ONE: Resources (25) vs. psychiatrist access (22), $X^2 = 0.19$, $p = 0.66$. Psychiatrist access (22) vs. process issues (14), $X^2 = 1.78$, $p = 0.18$. Refer to other professionals (13). LEVEL TWO: Professional development (4). Workload (1).
ONTARIO (n-124)	LEVEL ONE: Resources (55) vs. refer to other professionals (36), $X^2 = 3.97$, $p = 0.05$. LEVEL TWO: Psychiatrist access (51) vs. refer to other professionals (36), $X^2 = 2.59$, $p = 0.11$. Psychiatric access (51) vs. process issues (38), $X^2 = 1.90$, $p = 0.17$. Process issues (38) vs. professional development (23), $X^2 = 3.69$, $p = 0.05$. LEVEL THREE: Refer to other professionals (36) vs. professional development (23) =, $X^2 = 2.864$, $p = .091$. LEVEL FOUR: Workload (7).
	continued

in providing psychiatric treatment, due primarily to its highly specialized nature, the lack of time for continuing education, and the lack of sufficient time to address mental health issues in their practice.

Western Region Results (n = 88)

Psychiatrist Access (n = 32), Process Issues (n = 30), and Resources (n = 23) emerged significantly as the most frequent topics that were expressed and discussed. Referrals to Other Professionals (n = 18) and Professional Development (n = 14) emerged as topics of discussion less frequently. Workload emerged as the least frequent theme.

Region	Themes from rural/remote primary care physicians' (PCPs) concerning child/adolescent mental health care service order in level of importance with chi-square and p-values[1,2]
ATLANTIC (n=69)	LEVEL ONE:
	Resources (30) vs. Psychiatrist Access (29), X^2 = 0.02, *p* = 0.90.
	Resources (30) vs. Refer to Other Professionals (21), X^2 = 1.59, *p* = 0.21.
	Psychiatrist Access (29) vs. Refer to Other Professionals (21), X^2 = 1.20, *p* = 0.26.
	Resources (30) vs. Process Issues (19), X^2 = 3.69, *p* = 0.05.
	LEVEL TWO:
	Process Issues (19) vs. Professional Development (9), X^2 = 3.57, *p* = 0.05.
	LEVEL THREE:
	Professional Development (9).
	LEVEL FOUR:
	Workload (1).
NORTHERN (n=17)	LEVEL ONE :
	Resources (10) vs. Process Issues (6), X^2 = 1.00, *p* = 0.32.
	Resource (10) vs. Psychiatrist Access (5), X^2 = 1.67, *p* = 0.20.
	Resources (10) vs. Professional Development (3), X^2 = 3.77, *p* = 0.05.
	LEVEL TWO:
	Process Issues (6) vs. Professional Development (3), X^2 = 1.00, *p* = 0.32.
	Psychiatrist Access (5) vs. Workload (2), X^2 = 1.29, *p* = 0.26.
	Refer to Other Professionals (2).

Table 5. continued

1. Levels of importance are in descending order.

2. Level of importance is determined through chi-square analysis, based on statistically significant difference between frequencies. When a difference was found between two frequencies, it was statistically valid to assume that frequencies with a larger spread would also be significant, and thus not all possible pairs of chi-square analyses had to be conducted. Depending on their patterns of significant differences, some themes were clearly present at only one level of priority for PCPs, whereas others were present at multiple levels. As such, levels were not simply determined by direct difference between chi-squares, but also the overall patterns of differences (e.g., if X and Y were not significant, but X was significantly different from Z and Y was not, it is logical to assume that X stands apart from Y and Z at a higher level of importance). Using such logic allowed for more subtle discrimination between levels of importance.

Central Region Results (n = 60)

There were no significant differences between the frequency with which Resources (n = 25), Psychiatrist Access (n = 22), Process Issues (n = 14), and Referrals to Other Professionals (n = 13) were raised as discussion points. However, they were mentioned with significantly greater frequency than Professional Development (n = 4) and Workload (n = 1) themes.

Ontario Region Results (n = 124)

Resources (n = 55) emerged significantly as the most frequent theme of concern, followed by Psychiatrist Access (n = 51) as second highest. Process Issues (n = 38) and Referrals to Other Professionals (n = 36) were found to be third highest. Significantly lower than these themes, Professional Development (n = 23) was commented upon with second lowest frequency, with Workload (n = 7) being the least frequent theme.

Atlantic Region Results (n = 69)

Resources (n = 30), Psychiatrist Access (n = 29), Referrals to Other Professionals (n = 21), and Process Issues (n = 19) emerged as the most significantly discussed themes, and commented on with statistically equal frequency to each other. Professional Development (n = 9) appeared as the second highest significant theme, with Workload (n = 1) emerging as the least frequent theme.

Northern Region Results (n=17)

Resources (n = 10) emerged significantly as the highest concern. Process Issues (n = 6) and Psychiatrist Access (n = 5) were the second highest themes. Professional Development (n = 3), Referrals to Other Professionals (n = 2), and Workload (n = 2) were commented on with significantly lower frequency than the other themes, and with no statistically significant difference in frequency.

Discussion

The literature has consistently accounted for the under-serviced nature of mental health care in rural/remote areas through various system-related barriers, including availability, continuity, delivery, information exchange and coordination, and physician training (Hilty et al., 2009; Lutfiyya et al., 2012; Tsao et al., 2006). Interestingly, the perspectives of the PCP respondents were highly consistent with these identified system-related barriers. Across Canadian regions, the most prominent themes

were associated with systems struggles surrounding child and adolescent psychiatry and mental health, which are congruent with the current literature (Canadian Association of Paediatric Health Centres, 2010; Campo et al., 2015; Lutfiyya et al., 2012; Tsao et al., 2006). In particular, PCPs noted difficulties regarding lack of access to assessment and treatment, as well as too few human resources, including: long wait lists, lack of availability or access to a psychiatrist, need for more accessible mental health resources [(e.g., inpatient beds, psychology, therapy, and tele-health; issues also noted by Smalley et al. (2010)], and need for more knowledge on referral processes in child and adolescent mental health (issues also noted by Alexander & Fraser, 2008; Stretch et al., 2009; Shapiro et al., 2010; Steele et al., 2012). Lack of access, process problems, and lack of resources emerged as consistent primary themes across regions, with PCPs' discussions of their need for, or choice, to refer to professionals other than psychiatrists (i.e., paediatricians, psychologists, and social workers) consistently emerging as a theme. It is speculated that the lack of access to child and adolescent psychiatrists in their area at least in part accounts for PCPs' tendency to refer to other mental health professionals, as argued by some of the existing literature (College des Médecins du Quebec, 1999; Steele & Wolfe, 1999). These results provide important areas of foci which could help organize services in rural/remote regions, particularly given the limited nature of resources available for rural/remote mental health care. This may also be true for urban regions, where access to services also seems to be deficient. Collaborative care models, developed to address such gaps by supporting primary care professionals to act as mental health providers, may need to be designed to address the specific challenges of rural/remote regions (e.g., support by youth mental health experts with knowledge of the specifics issues and resources of the region).

Other identified process issues also revealed important rural/remote PCP concerns, including: lack of funding and support, poor continuity of care, poor communication and collaboration, the need for better structure and transparency in referral processes, and concerns about the inappropriateness of having to refer to or utilize adult psychiatric services. These findings are consistently noted by other studies (Campo et al., 2015; Lutfiyya et al., 2012; Tsao et al., 2006), and are associated with chronic underfunding of mental health services. Some concerns may be resolvable through better continuity of care, where well-established and sustainable case management may provide better success in terms of effective communication and collaboration.

A less frequent theme identified by physicians was their desire/ability to be involved in further professional development in child and adolescent psychiatry, with some PCPs identifying a desire to learn more, while others viewing mental health as a specialty area that is better handled

by specialists. Other less-frequent but recurring themes included reference to workload pressures, the perception that their practice is too overloaded for them to be involved in child and adolescent psychiatry, and their belief that child and adolescent psychiatry is exhausting and draining to their practice from a time and resource perspective. If mental health care is perceived as an overwhelming task, PCPs are much less likely to take an active role as mental health providers. It may therefore be important to devise models of collaboration where PCPs experience the support needed to become more active in providing mental health care. The comments made by PCPs clearly indicate their desire for more extensive resources in the child/adolescent mental health field. It is interesting to note that some, but very few, comments were made regarding tele-psychiatry, which could potentially be an excellent resource in under-serviced areas. We speculate that at the time of the study fewer PCPs had the opportunity to utilize this resource, which is a more recent development. It is important to note that comfort with such technology also develops over time (Pignatiello et al., 2011).

It is interesting that PCPs viewed indirect access to a psychiatrist, namely the patient's access to a psychiatrist being modulated by other professionals, as a form of lack of access. Furthermore, some PCPs clearly perceived "needing to refer" to non-child psychiatry clinicians in a negative light. There may be an underestimation by PCPs of the importance of non-pharmaceutical interventions, and thus the appropriateness of children/youth/families being seen first by a non-psychiatrist. This may reflect a need to further educate PCPs regarding collaborative mental health models, as many collaborative health care models may not prioritize the need for primary access to psychiatrists. A related attitudinal barrier that can be addressed through education is associated with PCPs potentially being uninformed or inordinately pessimistic about the availability and effectiveness of existing treatments (Campo et al., 2015). The role of mental health teams in providing services and guidance to rural and remote regions could be explored further. In the same manner, some PCPs identified referring to a paediatrician rather than a psychiatrist. Again the role of this major player in the mental health system could be looked into more closely within models of collaborative care.

Presenting data by region in the current study potentially allowed for some speculative insight into regional differences surrounding different themes. However, the differences between regions were not emphasized or compared, as the sample sizes within certain regions presents a significant limitation of the data's generalizability and interpretation. Nevertheless, the thematic issues identified by the current study may vary across provinces due to many factors, including population concentration and distribution relative to regional or provincial/territorial land mass, number of physicians and specialists and their distribution, and

concentration of international medical graduates who may have had various degrees of psychiatric education and prior exposure to paediatric psychiatry (CAPER Fact Sheet on International Medical Graduates, 2010). More than half of the provinces and territories lack a general mental health strategy, let alone one for rural/remote areas, with the notable exceptions of British Columbia, Alberta, Saskatchewan, Ontario, and Nova Scotia (Canadian Association of Paediatric Health Centres, 2010; Health Association Nova Scotia, 2013). Current and future provincial mental health strategies would benefit from taking into account the differences in regional struggles that have been suggested by the themes identified in the current study.

Implications

The comments collected through the survey allowed PCPs to express concerns regarding their perceptions of the state of child and adolescent psychiatric and mental health care in their regions. These concerns appear to have been so prominent for PCPs that they were inclined to write comments beyond the questions that were asked of them. These comments reflected the struggles they experience regarding barriers and challenges to offering quality psychiatric and mental health services for children and adolescents, as well as the manner in which they attempt to overcome those barriers.

Strikingly consistent with the literature, these expressed barriers and challenges primarily revolved around systemic issues that interfere with effective service delivery, particularly lack of access, process issues, and resources. Potential reasons for these barriers and challenges could include or be associated with: turn-over of psychiatrists; lack of sub-specialized expertise in child and adolescent mental health; the focus on crisis and emergency-oriented services; lack of access to, lack of awareness of, or lack of knowledge about tele-psychiatry access; different government funding depending on jurisdiction; complexity of referral and continuity of care processes; and under-utilization of paediatricians for certain disorders (e.g., ADHD). Identification of these barriers and challenges suggest potential targets for future improvement of service delivery.

The implications of such a compromised health delivery system for the mental health of children and youth are staggering. Research has consistently found rates of mental illness in children and youth at one in five and that less than half obtain treatment (Campo et al., 2015; Canadian Mental Health Association, 2015), that of all mental health cases 50% start by age 14 and 75% start by age 24 (Access & Wait Times in Child and Youth Mental Health, 2010), that suicide is the third leading cause of death in children ten to 14 years old and the second in youth 15 to 19 years (Canadian Mental Health Association, 2015), and that mental health struggles are associated with other life consequences such

as criminality (Kutcher & McDougall, 2009). Educating and partnering in mental health with PCPs is essential to help meet the needs of Canada's children and youth. However, given our findings, the hope that rural/remote PCPs will be able to fully fill the gap in mental health provision for children and youth may be insufficient or unrealistic.

The original focus of the survey utilized in this study was to examine rural/remote PCPs' training needs, but the secondary analysis of the PCPs' comments revealed their concerns about systemic service issues in the area of mental health. Although beyond the scope of this research, we speculate that urban PCPs may share similar concerns, although the greater proximal unavailability of mental health resources likely intensifies these issues for rural/remote PCPs. A study of an urban PCP comparison group would be an interesting way to examine such questions.

Steele et al. (2012) found that, from a mental health care perspective, there appears to be no one definition for "rural/remote" that is consistent across Canada. The best approximation was the SRPC definition of rural and/or remote medicine, as it applied to all of Canada. Yet during the course of their study, Steele et al. (2012) found that the SRPC definition remained problematic. It did not appropriately apply to some site locations due to the unique dispersion of urban/rural populations across Canada. These challenges led to the realization that there is a need to develop clear principles and guidelines in defining rural/remote regions to assist and promote further research in rural/remote child and adolescent mental health (Steele et al., 2012).

Limitations

The generalizability and interpretation of these findings must be tempered by the significant limitations of the data. The significant difference between theme levels across regions may reflect differences in sample size. It is possible that higher sample sizes within certain regions would allow more subtle significant differences to emerge. Although the survey only contained one available comment box located at the end, PCPs wrote comments throughout as there was no structured comment option for each question. If each question had specifically offered a "comment option", all participants would have become aware of this opportunity and more comments (perhaps of a different nature) may have emerged. One could also assume that PCPs who do not identify any problems in mental health care service delivery did not feel compelled to express their thoughts in this manner; consequently, these findings may be skewed in a negative direction. The data that were utilized for this paper were more derivative or "secondary" in nature and not "primary" because the survey did not explicitly ask for comments regarding the specific issues raised by PCPs. The comments of the PCPs were clearly beyond the primary scope of the survey they completed, and the survey did

not directly examine the issues that were raised by PCPs. However, the fact that PCPs took it upon themselves to make such narrative comments was fascinating in itself and reflected their need to express their broader viewpoints. As such, while the results presented in this paper must be considered exploratory in nature, they raised issues that appear to be prominent for PCPs and worthy of further examination within a Canadian context.

Acknowledgements/Conflicts of Interest

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