Survey Comparing Criteria Used by Rural and Urban Primary Care Physicians for Referrals to Child and Adolescent Psychiatrists and Children’s Mental Health Agencies in Ontario

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Abstract

Introduction: Primary care physicians are the first-line assessors of children’s mental health. Previous studies have shown a trend of over-reliance on referrals to child and adolescent psychiatrists and an underutilization of children’s mental health agencies. A survey was conducted to a) examine the criteria used by family physicians and primary-care paediatricians in deciding how to refer youth to mental health services, and b) assess interest in developing a set of formal guidelines outlining when to consider referral to child and adolescent psychiatrists and children's mental health agencies. Method: A mail-out survey was conducted using elements of the Dillman method. Two regions in Ontario were surveyed, Northwestern Ontario and Middlesex County, allowing for comparison between rural and urban settings. Results: Of the 266 physicians eligible for the study, 116 returned completed surveys, for a response rate of 40%. Awareness and utilization of children's mental health agencies was higher than predicted in both regions. A number of referral trends were identified. A majority of respondents in both regions indicated that they would like a standardized protocol and/or guidelines when referring to both psychiatrists and children mental health agencies. Conclusion: This study demonstrated that, in addition to referring to child and adolescent psychiatrists, the majority of primary care physicians are aware of and utilize children's mental health agencies in Ontario.

Key words: children’s mental health agencies, referral patterns, rural primary care physicians, family physicians, paediatricians

Résumé

Introduction: Les médecins de la première ligne sont les premiers à évaluer la santé mentale des enfants. Les études faites dans le passé ont montré que ces médecins avaient tendance à se reposer excessivement sur les références faites aux pédopsychiatres et à sous-utiliser les organismes voués à la santé mentale des enfants et des adolescents. Les objectifs de ce sondage sont les suivants: a) analyser les critères de décision des omnipraticiens et des pédiatres de première ligne qui réfèrent des adolescents à des services de santé mentale; b) évaluer l'intérêt des omnipraticiens et des pédiatres envers des directives officielles sur le moment auquel il convient de référer un patient à un pédopsychiatre ou à un organisme de santé mentale pour enfants. Méthodologie: Envoi d'un sondage utilisant la méthode de Dillman à des médecins de première ligne du nord-ouest de l'Ontario et du Comté de Middlesex, afin de comparer un milieu rural à un milieu urbain. Résultats: Cent seize médecins sur 266, soit 40 %, ont rempli le sondage en question. Les médecins connaissent l'existence des organismes qui s'occupent de la santé mentale des enfants et les utilisent plus souvent que prévu, dans les deux régions. Le schéma de référence des patients affiche plusieurs tendances. La majorité des sondés dans les deux régions ont répondu qu'ils aimeraient avoir des directives ou un protocole standardisé pour référer leur patient à un pédopsychiatre ou à un organisme de santé mentale. Conclusion: La majorité des médecins de première ligne réfèrent des patients à des pédopsychiatres; ils connaissent les organismes voués à la santé mentale des enfants en Ontario et ont recours à leurs services.

Mots clés: organisme de santé mentale pour enfants, mode de référence, médecin de première ligne en milieu rural, médecin de famille, pédiatre

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Introduction

As a result of the current shortage of child and adolescent psychiatrists in Canada, the appropriate referral of mentally ill youth by primary care clinicians is of crucial importance (Parker et al., 2002). In Ontario, primary care physicians are frequently faced with the decision of whether or not to refer to a child and adolescent psychiatrist and/or a children’s mental health agency (CMHA). Unfortunately, few studies have examined which criteria are used when deciding to refer to these services. In addition, previous surveys of family physicians have demonstrated a paucity of training in child psychiatry during residency (Steele & Dickie, 1997), as well as varying levels of confidence with regard to dealing with a variety of mental health issues in youth (Miller, Johnston, Klassen, Fine, & Papsdorf, 2005). Similar levels of discomfort with children’s mental health have been found in surveys of primary care paediatricians (Williams et al., 2004). CMHA’s provide many programs and services, which serve to support mentally ill children and their parents. The most recent study examining the use of these services in Ontario, found that only 1 in 6 children with a psychiatric illness were seen by either child welfare or mental health services (Ofliod et al., 1987). A Quebec study found that primary care providers tend to rely heavily on referrals to child psychiatrists as opposed to utilizing youth mental health services (Breton, Plante & St-Georges, 2005), which leads to increased demand on the limited number of child and adolescent psychiatrists.

The purpose of this study is to establish what criteria primary care physicians use when deciding to refer to child and adolescent psychiatrists and to CMHA’s. A secondary objective is to assess interest in developing a set of formal guidelines to aid primary care physicians in their decision making for referral to child and adolescent psychiatrists and CMHA’s.

Method

Participants

This is a cross-sectional survey of primary care physicians from a rural and an urban region in Ontario. The rural region selected was North-western Ontario which is the area situated north-west of Lake Superior, and west of Hudson Bay and James Bay. This region consists mainly of rural communities, with the exception of Thunder Bay. Middlesex County was the urban region selected. It is a more densely populated county situated in South-western Ontario and the mid-sized London is its major city. A list of all family physicians and primary care paediatricians in both regions was obtained using the Online Canadian Medical Directory. Physicians were excluded from the study if they did not have a general primary care practice, i.e. they were full-time emergency room physicians or had a full-time subspecialty practice. They were also excluded if they were retired or had moved out of the area.

Measures and Materials

An extensive eight-page single-sided questionnaire was constructed and piloted by the authors, which include a rural family physician and a paediatrician. The questionnaire was divided into four sections: Demographics & Training; Referrals to Child and Adolescent Psychiatrists; Referrals to Children’s Mental Health Agencies and Future Directions.

To maximize response rate, elements of the Dillman survey method were used. This involved sending up to five separate mailings to each participant, personalized correspondence, and the inclusion of a refrigerator magnet with the study name on it to serve as a token incentive (Dillman, 2000). In addition, those who did not respond were contacted by telephone.

The University of Western Ontario Human Subjects Ethics Review Board approved the study.

Statistical Analysis

Chi-square analyses compared frequencies in individual categories within the regions of North-western Ontario and Middlesex County. To compare the means of continuous variables between the two regions, multivariate ANOVAs were utilized with Bonferroni corrections applied for post-hoc analysis. The statistical power of these analyses was estimated at 0.80 with an alpha level of 0.05 and a medium effect size.

Results

A search of the Online Canadian Medical Directory yielded 142 family physicians and paediatricians for North-western Ontario and 231 for Middlesex County. In North-western Ontario, there were 41 ineligible physicians and in Middlesex County there were 66. Of the remaining eligible physicians, 39 of 101 physicians in North-western Ontario (37 family physicians and 2 primary care paediatricians) submitted completed surveys giving a response rate of 39%. In Middlesex County, 67 of 165 physicians (50 family physicians and 17 primary care paediatricians) completed surveys giving a response rate of 41%. The overall response rate for the survey was 40%.

The results of response to survey questions pertaining to training, confidence in referring, awareness of resources, referral criteria, barriers to referrals, and interest in having formal guidelines for referrals are presented below.
**Formal Training**

Participants were asked whether they had received formal training in child and adolescent psychiatry. The percentage of physicians indicating they had received training was 23% for North-western Ontario and 39% for Middlesex County.

**Confidence in Referring Patients**

Confidence in referring youth to child psychiatrists and to CMHA’s was rated on a four-point scale: 1 – completely lacking in confidence; 2 – somewhat lacking in confidence; 3 – Somewhat confident; and 4 – very confident. For referrals to child and adolescent psychiatrists, respondents indicated that they were “somewhat confident” to “very confident” in both regions with a mean confidence score of 3.4 (standard deviation 0.6). For CMHA’s the mean confidence score was 3.3 (standard deviation 0.5). Confidence was rated higher in Middlesex County than North-western Ontario for both types of referrals, although this difference was only statistically significant for referrals to child and adolescent psychiatrists (t(df 87) -3.3, P < 0.05).

**Awareness of Children’s Mental Health Agencies**

In North-western Ontario, 84% of respondents indicated that they were aware of CMHA’s in their area and 79% reported referring to these agencies. In Middlesex County, these values were higher with 96% of respondents saying they were aware of CMHA’s and 87% reporting that they referred to them.

**Rate and Referral Patterns**

Participants were asked to rate how often they referred patients with different mental health problems to child and adolescent psychiatrists and to CMHA’s. Referral patterns were rated for each item on a four-point scale: 1 – don’t refer; 2 – rarely refer; 3 – sometimes refer; and 4 – often refer (Table 1). The mental health issues most commonly referred to psychiatrists were psychotic disorders, suicidal ideation/attempts, and self-harm behaviour. The least commonly referred issues were learning disorders, ADHD, and behavioural problems. Post-hoc analysis yielded a statistically significant difference in the referral scores across regions for eating disorders, substance abuse disorders, and suicidal ideation/attempts. In all of these cases, physicians in Middlesex County reported referring to child and adolescent psychiatrists more often than did physicians in North-western Ontario.

The mental health problems most commonly referred to CMHA’s were violent/abusive behaviours, suicidal ideation/attempts, and self-harm behaviours. The least common referral reasons were ADHD and tic disorders. The only statistically significant difference in the referral scores across regions was for suicidal ideation/attempts; physicians in Middlesex County reported that they referred these cases more often than did physicians in North-western Ontario.

**Factors preventing Referrals**

The survey asked physicians what might prevent them from making referrals to child and adolescent psychiatrists and CMHA’s. A number of potential barriers to referral were rated on a three-point scale: 1 – not important; 2 – somewhat important; 3 – very important (Table 2). For referrals to child and adolescent psychiatrists, distance was listed as the most common reason not to refer in North-western Ontario and the least common in Middlesex County. This was the only statistically significant difference between regions when referring to child psychiatrists. Respondents from both regions listed wait-times as an important barrier for referrals to both child and adolescent psychiatrists and CMHA’s.

Participants were asked to report the average wait-times for referrals to child and adolescent psychiatrists and CMHA’s. The time frames were classified as follows: less than 1 week, 1 week to 1 month, 1 to 2 months, 2 to 6 months, 6 to 9 months, 9 months to 1 year, and greater than 1 year. For referrals to child and adolescent psychiatrists, the most commonly reported time frame in both regions was 2 to 6 months. For referrals to CMHA’s, 1 week to 1 month was the most common wait-time for North-western Ontario, and 2 to 6 months was the most common wait-time for Middlesex County.

**Guidelines for Referral**

Participants were asked if they would like to have a standardized protocol and/or guidelines outlining when to refer to child and adolescent psychiatrists and CMHA’s. For both types of referrals, a majority of respondents indicated that they would be interested in protocols/guidelines.

**Discussion**

Consistent with previous studies (Steele & Dickie 1997), a minority of primary care physicians in our study had received formal training in child and adolescent psychiatry. Despite this, on average respondents indicated that they were “somewhat confident” to “very confident” in their ability to refer which seemed to reflect higher levels of comfort with mental health problems than studies by Miller, Johnston, Klassen, Fine, & Papsdorf, (2005) and Williams et al (2004). However, most physicians reported that a standardized protocol or set of guidelines based around referring to child and adolescent psychiatrists and CMHA’s would be beneficial.
In 2002, Rushton et al. published a secondary analysis of the “Child Behavior Study,” which looked at referral patterns to youth mental health services from 206 primary care offices in the United States, Canada and Puerto Rico. This study included referrals to private psychologists and social workers, in addition to CMHA’s and psychiatrists, and found the psychosocial problems with the highest proportion of patients referred were substance abuse disorders, psychotic disorders and emotional problems. Similar to these results, our study found that psychotic disorders were also indicated as a common reason to refer. Three items in our survey could be thought to correspond to Rushton’s category of “emotional problems”: mood disorders, self-harm behaviours and suicidal ideation/attempts (see Table 1). Our results showed that self-harm and suicidal ideation were common reasons for referral to child and adolescent psychiatrists and CMHA’s. While it is reassuring that such cases do get referred from a safety perspective, it challenges one to question whether these behaviours reflect the result of untreated mental illness. ADHD and learning disorders, both well known to be co-morbid with a number of other mental health problems, were among the least common reasons for referral. This was congruent with Rushton’s findings that a large proportion of children with ADHD, mental retardation and developmental delay were not referred. One possible explanation for this would be that physicians feel confident with their assessment and treatment of ADHD and learning disorders. However, this would be in contrast to the study by Steele et al. (2003) which indicated that a majority of family physicians desired supplemental training in ADHD. It is feasible that a better understanding of mental illness in youth could lead to earlier referral, and potentially serve as a form of primary prevention to avert the future threat of harm to self and others.

Middlesex County physicians indicated that they referred more cases of eating disorders and pervasive developmental disorders (Autism and Asperger’s) than did North-western Ontario physicians (although this difference was only statistically significant for eating disorders). This may have been due to the fact that specialized programs for these disorders are located in London, Ontario. Overall, physicians from Middlesex County reported referring more often to both child and adolescent psychiatrists and CMHA’s for a greater variety of reasons than did North-western Ontario physicians. This might be expected given that fewer resources are located...
close-by in North-western Ontario; however, interestingly, wait-times for CMHA’s were reported as longer on average in Middlesex County.

As expected, wait-times and distance were indicated as reasons to not refer youth to mental health services. Physicians did not indicate that a lack of awareness of resources, or uncertainty of how to refer, were significant barriers. For both child and adolescent psychiatrists and CMHA’s, referrals being refused by patients and families was rated as a being a “somewhat important” to “very important” barrier. Since some CHMA’s encourage self-referral, a lack of understanding of the potential benefits of accessing community resources could diminish motivation to proceed with a referral.

Two new directions which could serve to enhance mental health care resources in rural communities are videoconferencing and collaborative/shared care. While our survey did not specifically inquire about videoconferencing, a recent study showed that this may be an underutilized resource. Cloutier et al. (2008) found in a survey of 95 rural physicians, that only 27% were aware of available video conferencing services for child and adolescent mental health. This has become a more viable option since the government of Ontario announced the expansion of its Telepsychiatry Program (McGuinty Government, 2007). Regarding collaborative care, a survey conducted in Nova Scotia looking at family physicians’ perceptions of such initiatives found that these programs lead to significantly greater knowledge and confidence when it came to managing childhood behavioural problems (Rockman, 2004). Physicians involved with collaborative care also reported being more satisfied with mental health services. In Ontario, a mentoring program linking family physicians with mental health care professionals was found to facilitate faster consultation by psychiatrists and effective access to community resources (Kisely, Duerden, Shaddick & Jayabarathan, 2006).

Conclusion

This study showed that Ontario primary care physicians are aware of and utilize children’s mental health agencies, in addition to referring to child and adolescent psychiatrists. Awareness of CMHA’s was considerably higher than

| Table 2. How primary care physicians rate possible reasons why they might not refer to child psychiatrists and children’s mental health agencies (N=106). Values represent mean scores based on a scale from 1 to 3 (1 – not important; 2 – somewhat important; 3 – very important). The standard deviations of these scores appear next to the means, in brackets. |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Reason not to Refer | Refer to child psychiatrist | Refer to children’s mental health agency | | | | | | |
|                  | NW Ontario      | Middlesex       | Total            | NW Ontario      | Middlesex       | Total            | NW Ontario      | Middlesex       | Total            | |
| Resource too far away | 2.8 (0.6)* | 1.3 (0.5)* | 2.3 (0.9) | 2.3 (0.7) | 1.4 (0.5) | 2.0 (0.8) | |
| Wait times too long     | 2.7 (0.5) | 2.6 (0.7) | 2.6 (0.6) | 2.7 (0.5) | 2.5 (0.8) | 2.5 (0.7) | |
| Unsure of how to refer  | 1.9 (1.1) | 1.6 (0.8) | 1.7 (0.9) | 1.7 (0.8) | 1.5 (0.7) | 1.6 (0.7) | |
| Unsure if case severe enough to refer | 2.0 (0.5) | 1.7 (0.8) | 1.8 (0.7) | 1.7 (0.7) | 1.8 (0.6) | 1.7 (0.7) | |
| Referral refused by patient | 2.3 (0.6) | 2.4 (0.6) | 2.3 (0.6) | 2.3 (0.7) | 2.5 (0.6) | 2.4 (0.6) | |
| Referral refused by parent | 2.1 (0.3) | 2.1 (0.7) | 2.1 (0.6) | 2.4 (0.5) | 2.3 (0.6) | 2.3 (0.6) | |
| Confident in own ability to manage case | 2.3 (0.7) | 2.5 (0.6) | 2.4 (0.6) | 2.1 (0.7) | 2.1 (0.6) | 2.1 (0.6) | |

* Statistically significant difference between regions based on multivariate ANOVA with Bonferroni correction (P<0.05).

| Table 3. Development of protocol/guidelines for referring. |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Percentage of respondents indicating they would like referral guidelines and/or a standardized referral protocol |
| Referral to child psychiatrist | | | | | | | |
| North-western Ontario | 79.5 | | | | | | |
| Middlesex County | 81.5 | | | | | | |
| Total | 80.8 | | | | | | |
| Referral to children’s mental health agency | | | | | | | |
| North-western Ontario | 79.5 | | | | | | |
| Middlesex County | 82.5 | | | | | | |
| Total | 81.4 | | | | | | |
originally anticipated given previous studies. It also showed that a majority of physicians are interested in formal guidelines for referral to child and adolescent mental health resources. A future research direction would be to pilot a referral framework in both rural and urban settings to determine whether this can serve to facilitate better utilization of mental health resources. Additionally, expanding this study to other regions in Ontario would provide a better understanding of province-wide trends.

Acknowledgements/Conflict of Interest
The authors have no financial relationships or conflicts to disclose.

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