RESEARCH PAPER

Child and Youth Mental Health Service Referrals: Physicians' Knowledge of Mental Health Services and Perceptions of a Centralized Intake Model

Aiguillage vers les services de santé mentale pour les enfants et les jeunes : connaissance des services de santé mentale de la part des médecins et perceptions face à un modèle d'accueil central

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Child and Youth Mental Health Service Referrals: Physicians' Knowledge of Mental Health Services and Perceptions of a Centralized Intake Model

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Abstract

Objective: We conducted a survey to assess physicians' attitudes and knowledge of mental health services and centralized intake services for mental health.
Method: A survey consisting of 51 questions was sent to 735 physicians in active practice within the catchment area of a regional centralized intake for child and youth mental health services. The survey was conducted during the summer of 2006.
Results: Of 735 eligible physicians, 388 completed and returned the survey (52.8% response rate). The majority of physicians were aware of mental health services offered by their hospital. Physicians reported lower confidence levels for delivering counselling and psychopharmacological treatments for mental health. Furthermore, over 72% indicated that they did not feel they had time in practice to provide mental health counselling. Over 65% of physicians reported that mental health referrals should have appropriate/defined criteria. The majority (92%) of physicians had referred to specialized mental health services provided by their hospital. With respect to centralized intake services, 57.2% of physicians indicated they were aware of the service and 73.9% said it should be continued. However, only 34% reported satisfaction with the centralized intake referral service. Predictors of satisfaction with the service were satisfaction with mental health feedback and satisfaction with response time of the centralized intake service.
Conclusions: Physician confidence levels in providing mental health services vary greatly. While doctors favour a centralized intake for mental health services, their satisfaction with such a service somewhat depends on variables beyond the control of the centralized intake, such as wait times and feedback from mental health providers.

Résumé

Objectif : Nous avons effectué un sondage pour évaluer l'attitude et les connaissances des médecins face aux services de santé mentale et au service d'accueil central en matière de santé mentale.
Méthodologie : Un questionnaire de 51 questions a été envoyé à 735 médecins actifs dans une région desservie par un service d'accueil central pour les services de santé mentale chez les enfants et les jeunes. Le sondage a été effectué au cours de l'été 2006.
Résultats : Au total, 388 des 735 médecins admissibles ont rempli et retourné le questionnaire (taux de réponse de 52,8 %). La majorité des médecins sont au courant

des services de santé mentale offerts par leur hôpital. Ils ont manifesté des taux de confiance plus bas pour ce qui est de leurs propres possibilités d'offrir du counseling ou des traitements psychopharmacologiques pour les problèmes mentaux. De plus, plus de 72 % des répondants indiquent ne pas avoir le temps, dans le cadre de leur pratique, pour offrir des services de counseling en matière de santé mentale. Plus de 65 % des médecins indiquent que l'aiguillage vers les services de santé mentale devrait reposer sur des critères appropriés et bien définis. La majorité des médecins (92 %) ont orienté des patients vers les services de santé mentale spécialisés offerts par leur hôpital. Pour ce qui est du service d'accueil centralisé, 57,2 % des médecins indiquent qu'ils en connaissent l'existence et 73,9 % affirment qu'il devrait être maintenu. Cependant, seulement 34 % se disent satisfaits quant au service d'accueil centralisé pour l'aiguillage des patients. Les facteurs influant la perception envers ce service sont la satisfaction face à la rétroaction des services de santé mentale et la satisfaction face au temps de réponse du service d'accueil centralisé.
Conclusions : Il y a une grande variation dans les niveaux de confiance exprimés par les médecins pour offrir des services de santé mentale. Bien que les médecins se montrent en faveur d'un accueil centralisé pour les services de santé mentale, la satisfaction face à un tel service dépend de variables hors du contrôle dudit service, telles que les temps d'attente et la rétroaction provenant des fournisseurs de services de santé mentale.

Epidemiological studies have shown that 15% of children experience mental disorders, yet only one in six receives the needed specialized services (Offord et al. 1987; Stiffman et al. 1997; Waddell et al. 2005). While finding ways to improve the identification of mental health (MH) problems in children and youth is of utmost importance, once problems are identified, where and how to access appropriate clinical services becomes crucial.

In response to the high prevalence rate of MH problems in children, many countries have begun to build policy statements to provide goals for developing adequate treatment models (Zolnierek 2008). Canada has focused on developing community support services and improving system integration (Lurie 2005). In Ontario, the Graham Report (Ontario MoHLTC 1988) proposed a "whole systems view" that effectively linked provincial psychiatric hospitals, general hospital and community services, resulting in a community-focused MH service. A later implementation framework (Ontario MoHLTC 1999) continued the previous policy and focused on system integration (Lurie 2005). While there is a move to strengthen mental healthcare within the primary care setting through increased training of primary care providers and facilitation of collaborative relationships, referral to MH specialists is still a key component of the mental healthcare system (AACAP 2009).

For many youth and families, the primary physician is the main source for MH information and help (Davidson and Manion 1996). In our review of the recent literature, a number of studies reported that MH or psycho-social problems among patients in primary care ranged from 18% to 38% (Elhai et al. 2007; Rushton et al. 2002; Kelleher et al. 2000; Kramer and Garralda 1998). Of those requiring MH services, approximately half were considered to require referrals to specialized mental healthcare (Elhai et al. 2007; Kramer and Garralda 1998). In a review of the literature based in the 1990s by Phillips and colleagues (1998), estimates of medical patients with MH needs varied widely from 4% to 88%, depending on the type of physician reporting. Psychiatrists tended to report higher referrals, whereas surgeons and internists reported much lower. Phillips and colleagues (1998) concluded that an estimate of 30% would be conservative.

As indicated in the literature, while the primary physician can often manage many of the presenting MH problems, a number of patients will need more specialized services, usually obtained in hospitals or community MH agencies, or through community MH specialists. Physicians reported that they refer to MH services when they are uncertain about a diagnosis, their patients fail to respond to treatment, patients have severe affective symptoms or require ongoing psychotherapy (Williams et al. 2005).

In order for those experiencing MH issues to receive the proper treatment, the primary physician must be able to refer patients easily to appropriate services. Phillips and colleagues (1998) reported that only 55% of paediatricians surveyed referred their MH patients for specialized psychiatric services. Considering that a number of patients could have been adequately treated within the paediatrician's practice, one could assume that some of the patients of paediatricians not reporting referrals may have benefited from specialized MH services. Even lower rates were reported in a Quebec survey of family physicians, with fewer than five referrals per year for MH services (Maheux et al. 2006).

A number of studies have explored MH referral systems in order to understand possible barriers to MH referrals (Williams et al. 2005; Walders et al. 2003; Trude and Stoddard 2003). The barriers include (a) lack of feedback from MH services on the referral outcome (Stiffman et al. 1997; Williams et al. 2005), (b) greater difficulties accessing MH services than other medical services (Trude and Stoddard 2003), (c) lack of information regarding various MH services (Maheux et al. 2006; Trude and Stoddard 2003), (d) lack of psychiatrists for referral within the community (Maheux et al. 2006) and (e) long waiting periods (Stiffman et al. 1997).

In their review of the literature, Phillips and colleagues (1998) summarize these barriers as either related to access to MH services (e.g., "large clinics and hospitals seem less responsive than private practitioners," "does my patient really need to drive 30 miles for MH care"), concerns regarding the quality of MH service ("there are so many different types of mental health providers that it is difficult to assess their quali-

fications") or barriers related to attitudes and communication (e.g., "my patients disappear once I refer them," "I never get any feedback or report"). Physicians noted that they had better results for referral services when a MH provider was located within their facility (Williams et al. 2005; Maheux et al. 2006), indicating that availability and convenience may facilitate MH referrals.

While existing research has suggested that primary care physicians perceive many barriers when referring for MH services, there are obvious limitations to this research. Most of the current research has been conducted in the United States and involves comparisons of families with managed care coverage to those who pay a fee for service (Walders et al. 2003; Trude and Stoddard 2003; Forrest et al. 2002). In these settings, referral determinations may be based on the individual patient's insurance provider and the provider's methods for referrals, which may add a level of complexity in referring for the physician. This situation differs from the model of care in Canada, which may vary by province but primarily consists of an integrated model of care within a universal funding framework. Other literature is based on samples of convenience, small samples or expert opinion (Stiffman et al. 1997; Phillips et al. 1998; Williams et al. 2005).

Because access, convenience, communication and information are all concerns in referrals for mental healthcare, one solution may be a centralized intake (CI) service facilitating MH referrals. CI provides a single point of entry for patients requiring access to more specialized services tailored to their needs. It is designed to act as a gateway and facilitator responsive to the MH needs of patients and their referring physicians. While there has been no research regarding CI for MH services, studies have been conducted on the effectiveness of CI on treatment outcomes in drug treatment centres. Those who entered treatment programs via CI have been shown to receive more referrals to ancillary services (i.e., other health and human service providers) and to be more likely to show up for treatment (Scott et al. 2002). CI was also shown to improve scores on the Addiction Severity Index with regard to legal problems more than for patients who entered the treatment program directly (Barron et al. 2002).

Because access, convenience, communication and information are all concerns in referrals for mental healthcare, one solution may be a centralized intake (CI) service facilitating MH referrals.

There is currently no research on how responsive CI systems have been to physicians who have referred their patients, or on physicians' knowledge and attitudes about the referral of children and youth to mental healthcare when CI systems have been in place. Recently in Eastern Ontario, a CI service was created as part of a regional Specialized Psychiatric and Mental Health Services for Children and Youth (SPMHS

2000), to assist physicians in directing and placing their patients in the appropriate MH service administered by the regional hospitals and outpatient hospital services. The CI should address some of the barriers to MH referrals for children and youth by providing a single point of entry for MH services. In Ontario, referrals to SPMHS, including those to psychiatrists, psychologists, social workers and occupational therapists, would be covered by the Ontario Health Insurance Plan (OHIP), whereas referrals to community psychologists or social workers would be covered by individual insurance plans only for those who have coverage.

The purpose of this survey was threefold. First, we conducted a comprehensive assessment of physicians' attitudes and knowledge of MH services. This part of the survey included questions concerning perceived barriers to referrals that have been indicated in the current literature, such as wait times for referrals, feedback and communication, as well as new questions concerning physicians' level of confidence in providing MH services and their opinions on guidelines for MH referrals. Secondly, we undertook an evaluation of physicians' attitudes and satisfaction with the services provided by a CI for mental healthcare. We hypothesized that satisfaction with the CI referral process would be predicted by satisfaction with response time for referrals, satisfaction with feedback from CI and physician confidence in managing MH concerns. Thirdly, we surveyed physicians' attitudes and knowledge of mental healthcare provided by telehealth. The results of the telehealth portion of the survey are presented elsewhere (Cloutier et al. 2008).

Methods

Procedure

Multidisciplinary teams within the Children's Hospital of Eastern Ontario (CHEO) and the Royal Ottawa Mental Health Centre (ROMHC) provide MH services to children and youth. Services include outpatient MH teams, partial hospitalization programs, emergency and crisis services, therapeutic classrooms and in-patient services. CI was implemented to streamline the referral process for these services to the appropriate MH resources, either in the community or within SPMHS. Prior to this, physicians or families had to find the appropriate MH services, with the result that sometimes patients were placed on multiple wait lists.

The regional CI located at the CHEO has been in existence since 1997. It was implemented as a part of the restructuring of MH services in Eastern Ontario as part of SPMHS, and it was designed to provide a single point of entry for children and youth in the geographical area of the Champlain Local Health Integration Network (Dall et al. 2006). The Champlain LHIN has a population of 1,100,300, with 13.1%

consisting of visible minorities and 10.8% considered to be of low income. Lone-parent families make up 23.7% of all families (Dall et al. 2006). CI was designed to provide assistance to referring physicians in identifying the appropriate available service and helping physicians to access these services for their patients in a timely and equitable manner.

Physician recruitment was based on the Tailored Design Method (Dillman 2000). This method has been found to enhance potential response rates in mail-out surveys. The population for the survey database was generated from MD Select database software (2004). This Canadian database permits selection of physicians based on location and medical specialty. In 2006, we sent a survey to all physicians (N=1,598) in the hospital catchment area who might have child or adolescent patients requiring referrals for MH services to the Regional CI. Valid physicians for the study included (a) those who would refer children and youth to MH services as required, (b) physicians who were currently practising family medicine, general internal medicine, paediatrics, neurology, community medicine or general medicine, (c) those whose practice was within the hospital catchment area and (d) those who were in active practice. A one-week reminder was sent to all potential participants followed by two-week and one-month follow-up reminders and surveys to those who had not yet returned the survey. Physicians who completed the survey were eligible to win one of five Montblanc pens valued at $200 each. Response was voluntary. The research ethics board at CHEO approved the protocol under the rubric of an expedited review because it involved no more than minimal risk.

Measures

The survey was developed to assess the responsiveness of a regional centralized MH intake service for children and youth to the needs of the referring physicians, including awareness of service and timeliness. All survey items were developed by a multidisciplinary team in order to ensure content validity. The team included representation from community medical practitioners, MH researchers, hospital administrators and MH intake workers. The survey was available in both English and French. Questions were developed within the framework of the quality dimensions used by the Canadian Council on Health Service Accreditation to assess the responsiveness of the regional centralized MH intake service to the needs of referring physicians. The survey was piloted with a small sample of physicians, and adjustments were made based on their feedback.

The survey consisted of six sections including (1) practice status, (2) awareness of services, (3) physicians' confidence in the area of MH in working with children, youth and families with MH issues, (4) physicians' views towards mental health/illness issues, (5) MH referrals, (6) MH provided by telehealth and (7) centralized intake.

Categorical questions were used in assessment of awareness with regard to referral numbers and wait times. Five-point Likert scales were used to measure physicians' confidence levels, satisfaction with feedback, views towards MH issues, response time and referral process.

The *physician confidence scale* consisted of eight items designed to assess the degree of confidence a physician had in carrying out tasks related to MH issues with children, youth and their families. Item examples include "Elicit MH information as part of a family/medical history" and "Provide counselling related to MH issues." Answer options ranged from 1 (low confidence) to 5 (high confidence). "Not applicable" was also an answer option. A composite score was calculated as an indicator of overall confidence level. Scores ranged from 8 to 40, with a higher score indicating a higher confidence level. Cronbach's alpha for this scale was 0.88.

The *two-item satisfaction with feedback scale* was used to assess physician satisfaction with the quality of feedback from specialized MH services from CHEO and the ROMHC with regard to diagnostic assessment and treatment and follow-up plan. Answer options ranged from 1 (very dissatisfied) to 5 (very satisfied). "Not applicable" was also an answer option. A composite score for two items of the feedback satisfaction questions was calculated as an indicator of overall satisfaction. Scores ranged from 2, representing the lowest level of satisfaction, to 10, representing the highest level of satisfaction. The two items correlated with $r=0.78$, $p<0.001$.

Open-ended questions were used to acquire further information regarding physicians' views *towards the regional CI* for MH services for children and youth. Two research assistants separately coded all the open-ended data to ensure reliable coding. The open-ended question pertaining to additional thoughts on CI had a kappa value of 0.86.

The *comfort with providing information scale* was composed of six items that measured the level of comfort a physician experiences in providing information to CI in relation to the health status of patients with regard to clinical symptoms, family history, stressors/precipitating factors, socio-demographic background, previous assessments and previous treatments. Answer options ranged from 1 (very uncomfortable) to 5 (very comfortable). "Not applicable" was also an answer option. Cronbach's alpha for this scale was 0.98. A separate question regarding comfort with following up on recommendations by CI in redirecting patients to community services consisted of a yes/no or "neutral" answer.

The data were analyzed using SPSS 15.0 for Windows. Descriptive statistics were obtained by frequency analysis and measures of central tendency. Group differences were evaluated via chi-square tests for categorical data and via independent sample t-tests for continuous data. Hierarchical regression was used to examine which variables predict satisfaction with the referral process through CI. All tests were two-tailed.

Results

General findings

RESPONSE RATE

Of the 1,598 total potential participants listed in the MD Select database (2004), 735 (46.0%) were valid (i.e., met inclusion criteria), 259 (30.0%) could not be located (information could not be found) or had moved out of the hospital catchment area, 313 (36.3%) were no longer in active clinical practice and 278 (32.2%) did not see patients under the age of 18. Of the 735 valid potential participants, 388 (52.8%) had completed and returned the survey.

SURVEY RESPONDENTS VERSUS NON-RESPONDENTS

In order to assess the generalizability of the findings, a chi-square goodness of fit test was conducted on the available demographic characteristics (from the MD Select database) of survey responders versus non-responders. A significant difference was found in the proportion of responders for gender, language and location. Proportionately more females responded (58.3% female vs. 47.3% males, χ^2 [1, N=734] 8.9, $p<0.01$); more English-speaking physicians responded (54.1% English vs. 38.3% French, χ^2 [1, N=735] 5.5, $p<0.05$); and more rural physicians responded (76.8% rural vs. 49.2% urban, χ^2 [1, N=734] 25.3, $p<0.001$). However, although significant differences were found for these variables, there were still a large proportion of responders representing male (47.3%), French-speaking (38.3%) and urban physicians (49.2%); therefore, these groups are represented in the responses even though there may be potential for bias. No differences were found for time in practice ($t=0.75$ [1, 730], ns). In addition, of those who completed the survey, a number of questions were left unanswered. We compared the characteristics of those who answered the majority of the questions with those who left unanswered questions, and no differences were found between groups. Therefore, for the following analysis all available data was reported.

Sample characteristics

The sample consisted of 178 males (45.9%) and 210 females (54.1%). The mean age was 48 years (SD=9.40), with a range from 31 to 78 years. Table 1 illustrates the characteristics of the 388 participants. The majority of the participants reported English as their preferred language. Most physicians described their practice location as either "Metropolitan/central city" or "Metropolitan/suburban," and most worked in either a community group practice or a community solo practice with the majority of physicians specialized in either family medicine or general practice.

TABLE 1. Demographic statistics

Variable	Percentage (n)
Preferred language	
English	94.1 (365)
French	5.9 (17)
Graduation country	
Canada	87.9 (341)
Other country	12.1 (18)
Geographic area of practice	
Metropolitan/Central city	50.5 (189)
Metropolitan/Suburban	30.2 (113)
Rural	9.9 (19)
Small city/Town	9.4 (20)
Work setting	
Community group practice	46.0 (171)
Community solo practice	32.0 (119)
Hospital	12.9 (48)
Academic teaching unit	5.1 (19)
Other	4.0 (15)
Specialty	
Family medicine	48.6 (188)
Physician/General practice	28.4 (110)
Paediatrics	15.5 (60)
Psychiatry	4.9 (19)
Neurology	1.3 (5)
Community medicine	0.8 (3)
Emergency Family Medicine	0.5 (2)
	M (SD)
Percentage of practice comprising youth	33.4 (31.6)
Time in practice/years	21.8 (9.6)

Physicians' attitudes and knowledge

The majority reported that they "strongly agree/agree" (65.6%, n=249) with the view that specialized MH services should have appropriate/defined criteria for referrals. Secondly, the majority "strongly disagree/disagree" (72.8%, n=276) with the statement that they have sufficient time in their practice to provide MH counselling to youth and their families; and finally, the majority "strongly disagree/disagree" (37.4%, n=142) or were "neutral" (34.5%, n=131) with regard to the statement that MH issues with youth and their families are too difficult to address.

Awareness of in-patient hospital and outpatient hospital services

The majority of physicians were aware of in-patient services delivered both at hospital facilities (73.4%) and through outpatient MH teams (62.1%). Fewer were aware of the Youth Partial Hospitalization Program (43.0%), and there was less awareness of the other specialized MH services (26.4% to 33.9%).

Perceived barriers to referrals

REFERRALS

When asked whether they have referred to specialized hospital MH services, a significantly greater number of physicians (93.3%, n=362) reported they had referred, whereas only 70.6% (n=269) of respondents said they had referred to community MH services (χ^2 [6, N=381]=17.291, p=0.008).

PHYSICIAN-PERCEIVED WAIT TIMES

The majority reported having waited an average of three months or more for their patients to be seen by MH services at hospitals, and most waited 0–2 months for their patients to be seen in the community. Three hundred fifteen (81.2%) physicians indicated the type of MH professionals they refer to in the community as follows: 53.7% (n=169) reported having referred to a private psychiatrist, 77.5% (n=244) to a private psychologist, 51.1% (n=161) to paediatricians, 20.3% (n=64) to private therapists, 21.1% (n=182/240) to community/social services and 5.8% (n=22) reported having referred to other hospitals.

FEEDBACK/COMMUNICATION

The majority were "satisfied/very satisfied" with the quality of feedback from SPMHS with regard to diagnostic assessment (59.3%, n=191); fewer were "satisfied/very satisfied" with the treatment and follow-up plan provided (40.5%, n=128). The composite

score for these two questions of satisfaction with feedback (diagnostic assessment, and treatment and follow-up plan) was M=6.5 (SD 2.3). This composite was used in the subsequent regression analysis.

PHYSICIAN CONFIDENCE

Table 2 provides a breakdown of the number and percentage of physicians reporting in the confident range for providing various aspects of MH services to their patients. Confidence levels of paediatricians were compared to other specialties (family medicine, general practice, psychiatry, neurology, community medicine and emergency family medicine) because they see the highest percentage of children and youth. There was no significant difference in confidence among the groups, with the exception of paediatricians reporting significantly lower confidence in providing counselling related to MH issues (χ^2 [2, N=381]=13.767, p=0.001). Specifically, 49.1% (n=28) of paediatricians compared with 25.9% (n=84) of other specialties reported low confidence; 21.1% (n=12) of paediatricians compared with 39.8% others (n=129) reported high confidence. A composite score was calculated for all item responses for questions concerning level of physicians' confidence, 8 representing the lowest confidence and 40 the highest level of confidence. Average composite score was 27.77 (SD=5.62). This composite score was used in the subsequent regression analysis because we hypothesized that physicians' level of confidence in managing patients with MH concerns may affect their satisfaction with the referral system.

TABLE 2. Physician responses for level of confidence in providing MH services

	Low 1 n (%)	2 n (%)	Neutral 3 n (%)	4 n (%)	High 5 n (%)
Direct patients/families at risk to emergency	7 (1.8)	6 (1.5)	53 (13.9)	175 (46.1)	139 (35.8)
Elicit MH information as part of a family/ medical history	3 (0.8)	10 (2.6)	72 (18.7)	186 (48.2)	115 (29.8)
Discuss MH issues with children, youth and families	7 (1.8)	33 (8.5)	99 (25.6)	175 (45.3)	72 (18.7)
Assess suicidal and homicidal risk in patients	12 (3.1)	46 (11.9)	107 (27.7)	169 (43.6)	52 (13.5)
Provide information to children, youth and families concerning risk/behaviour associated with MH illness	11 (2.8)	54 (14.0)	147 (38.1)	139 (36.0)	35 (9.1)
Provide MH information to child and youth	11 (2.9)	59 (15.3)	147 (38.2)	135 (35.1)	33 (8.6)

TABLE 2. Continued.

Provide counselling related to MH issues	28 (7.3)	84 (22.0)	128 (33.5)	116 (30.4)	26 (6.8)
Provide pharmacological treatments to children and youth with MH issues	57 (14.8)	139 (36.2)	109 (28.4)	58 (15.1)	21 (5.5)

Centralized intake

Awareness of the CI program for hospital in-patient and hospital-based outpatient/community services was 57.2% (n=222). However, when physicians were asked if CI process should continue, 73.9% (n=264) of physicians agreed, 21.8% (n=78) said that they were neutral on the matter and 4.2% (n=15) said that there should not be a CI. Of the 57% (n=222) of physicians who were aware of CI, 75.9% (n=164) agreed that it should continue.

Of the responding physicians who were aware of CI services, 39.9% (n=85) reported that they were "dissatisfied/very dissatisfied" with the referral process through CI, 34.3% (n=73) reported "satisfied/very satisfied" and 25.8% (n=55) reported "neutral." When asked how satisfied they were with response time, 40.4% (n=84) reported "dissatisfied/very dissatisfied," 33.6% (n=70) indicated that they were "satisfied/very satisfied" and 26% (n=54) were "neutral."

Physicians were asked about their level of comfort in providing information to CI regarding the MH status of their patients. A high comfort level was obtained, with percentages of physicians reporting feeling "very comfortable/comfortable" as follows: 86.9% (n=193) for providing information on clinical symptoms, 85.1% (n=183) for providing information on stressors/precipitating factors, 84.2% (n=181) for providing information regarding family history, 82.7% (n=177) for providing information on socio-demographic background, 83.7% (n=180) for providing information on previous treatments and 82.8% (n=178) for providing information on previous assessments. Comfort with following up on recommendations by CI in redirecting patients to community services was reported by 65.4% (n=140) of physicians, 18.7% (n=40) reported that they were neutral on the matter and 15.9% (n=34) said they would not be comfortable.

Further comments regarding the regional CI were provided by 35.8% (n=139) of physicians. These comments could be grouped into categories that relate to three main overarching areas: (1) positive feedback, e.g., "the responses have been professional and prompt"; (2) barriers to MH referrals in general, e.g., "the impression is that resources are very scarce"; and (3) comments and suggestions relating to CI, e.g., "a mailing would be helpful. Outline all services, who you want to see and how you want them to be referred."

PREDICTING SATISFACTION WITH THE CI REFERRAL PROCESS

A hierarchical linear regression was performed in order to assess which variables significantly predicted satisfaction with the CI referral process. Demographic variables (i.e., age and gender) and practice information (i.e., percentage of practice comprising youth, practice location, time in practice) were entered at Step 1, and MH variables (i.e., composite score of eight-item physician confidence in providing MH services and composite score of two-item satisfaction with feedback) and CI variables (i.e., composite score of six-item comfort in providing information to CI services and single item of satisfaction with response time from CI) were entered at Step 2. Table 3 reports the results of the regression. Significant predictors were found only in the CI variables of satisfaction with feedback from MH services (sr^2=0.06) and response time of CI (sr^2=0.33).

TABLE 3. Predictors of satisfaction with CI referral process

Variable	B	β	t	sr^2
Step 1				
Gender	–0.37	–0.15	1.83	0.02
Age	0.000	0.002	0.009	0
% of practice comprising youth	–0.002	–0.05	–0.61	0
Urban vs. rural	–0.175	–0.06	–0.68	0
Time in practice	–0.02	–0.15	–0.78	0
Step 2				
Satisfaction with feedback from MH services	0.14	0.26	4.42*	0.06
Satisfaction with response time by CI	0.61	0.62	10.77*	0.33
Physician confidence	–0.02	–0.08	–1.41	0.01
Comfort providing info	0.01	0.03	0.56	0

Note: R^2=0.04, (ns) for Step 1: change R^2=0.53, ($p<0.001$); * $p<0.001$.
sr^2=semipartial correlation squared is the unique contribution of the predictor as a proportion of total variance of the satisfaction with CI referral process (Tabachnick and Fidell 1996).

Discussion

The majority of physicians reported referring patients to hospital services. However, only a little over half were aware of CI services for referrals to these same services. Interestingly, most physicians thought the CI system should continue, even those who had not been aware of this service before the survey. Physicians also seemed to be very

comfortable providing information to CI for a variety of items relating to patients. However, for those physicians reporting that they were aware of the CI service, satisfaction with it was poor: only 34.3% of respondents said they were satisfied with the service, whereas 39.9% were dissatisfied. As hypothesized, two factors that influenced satisfaction with CI referrals were satisfaction with response time from CI and feedback from MH services in general. These concerns are similar to those reported in the current literature (Stiffman et al. 1997; Williams et al. 2005; Walders et al. 2003; Trude and Stoddard 2003). Unfortunately, although CI has control over response time for its initial service, it does not control wait times for the actual MH services.

Within the additional comments, it was noted that even with CI, barriers to referrals were still a concern. Difficulties with waiting times, perception that services are scarce, referral back to the community for services and dissatisfaction with feedback were concerns. These findings are consistent with current literature, a result that indicates physicians have difficulty with MH referrals because resources are scarce and feedback from referral services is lacking (Stiffman et al. 1997; Williams et al. 2005; Maheux et al. 2006). This research confirms that a CI service is unable to alleviate frustration with general wait times and lack of resources. However, once strengthened, CI may be able to alleviate such barriers as communication and difficulties with MH feedback. In order to strengthen the CI system, physicians noted that they would appreciate a detailed list of services that the CI system provides, clearly defined and appropriate criteria for referrals, and faster feedback and response to queries.

From physicians' responses, it was evident that participants had a good awareness of the major MH services offered at the institutional level and throughout the community, although awareness of some specific services was lacking. Additionally, this survey indicated that physicians' confidence levels with their ability to deliver MH services varied. Confidence in the area of counselling and providing pharmacological treatments was notably low. This finding is consistent with current literature, indicating that paediatricians are reluctant to prescribe psychotropic medication and corroborating reports from physicians that the need for ongoing therapy is often a reason for a MH referral (Williams et al. 2005; Steele et al. 2003). Moreover, physicians did not feel that they had sufficient time in their practice to provide adequate MH counselling, with paediatricians reporting even lower confidence levels than other physicians for providing counselling. It may be that paediatricians understand the complexities in counselling children and their caregivers for MH issues and are understandably less confident in providing this service. Further research is required to explore this finding.

Limitations

The survey was limited in that it was administered within a universal system of healthcare where most care, including psychiatric care, is funded by the provincial government authority. Although private mental healthcare is available from psychologists and private counsellors, most such care is accessed through the provincial health plan. The outcomes from this study may not be representative of perceptions of physicians from countries where different methods of referrals are in place, depending on the patient's insurance plan (or lack of insurance). However, similarities concerning barriers to referrals were found between other countries and this study, and these are discussed above. In addition, differences in the response cohort for gender, language and location may have skewed the results somewhat in favour of perceptions of female, English-speaking and rural physicians, although the sample still had good representation within genders, languages and locations. It should be noted that although the response rate was limited (52.8%), it is typical of other physician surveys found in the literature (54%; Asch et al. 1997).

Conclusions

Even though satisfaction ratings were low, three-quarters of physicians were in favour of the CI service continuing and were comfortable providing information about their patients to CI. The frustrations with the system seemed to be frustrations inherent in MH referrals, a situation that might be somewhat alleviated with clear guidelines for referrals and a detailed mail-out that lists services available through CI. A recommendation to strengthen physicians' satisfaction with the CI system would be to ensure timely feedback and better communication with regard to placement decisions. Although a CI service has limited influence on wait times, a procedure that tracks wait times between referral and first appointment, and documents these times to both physicians and policy makers, could alert these officials to the need for additional resources within the MH system.

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