FEATURE ARTICLE

Choosing Child and Adolescent Psychiatry: Factors Influencing Medical Students

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Abstract

Objective: To examine the factors influencing medical students to choose child and adolescent psychiatry as a career specialty. Method: Quantitative and qualitative methods were used. A web-based survey was distributed to child and adolescent psychiatrists at the University of Toronto. In-depth interviews were held with select child and adolescent psychiatrists as well as a focus group with psychiatry residents. Retrospective accounts of the factors that influenced their decision to choose psychiatry and/or child and adolescent psychiatry as a specialty were collected. Results: Ninety-two percent of participants indicated that recruitment of child psychiatrists in Canada is a problem. The recent decision by the Royal College of Physicians and Surgeons to recognize child and adolescent psychiatry as a subspecialty and introduce an extra year of training was identified as a further challenge to recruitment efforts. Other deterrents included lower salary than other subspecialties, lack of exposure during training, stigma, and lack of interest in treating children. Recruitment into psychiatry was enhanced by good role modeling, early exposure in medical school, an interest in brain research, and career and lifestyle issues. Conclusions: A rebranding of the role and perception of psychiatry is needed to attract future psychiatrists. Early exposure to innovations in child and adolescent psychiatry and positive role models are critical in attracting medical students. Recruitment should begin in the first year of medical school and include an enriched paediatric curriculum.

Key Words: child and adolescent psychiatry, education, medical students, recruitment



Résumé

Objectif: Examiner les facteurs qui influencent le choix des étudiants en médecine d'une carrière de spécialité en psychiatrie de l'enfant et de l'adolescent. Méthode: Des méthodes quantitatives et qualitatives ont été utilisées. Un sondage en ligne a été distribué aux pédopsychiatres de l'Université de Toronto. Des entrevues de fond ont été menées avec des pédopsychiatres sélectionnés ainsi qu'avec un groupe de discussion formé de résidents en psychiatrie. Des comptes rendus rétrospectifs des facteurs qui ont influencé leur décision de choisir la psychiatrie et/ou la psychiatrie de l'enfant et de l'adolescent comme spécialité ont été recueillis. Résultats: Quatre-vingt-douze pour cent des participants ont indiqué que le recrutement de pédopsychiatres au Canada est problématique. La décision récente du Collège royal des médecins et chirurgiens du Canada de reconnaître la pédopsychiatrie comme surspécialité et d'ajouter une autre année de formation a été identifiée comme étant un défi additionnel pour les initiatives de recrutement. D'autres éléments dissuasifs étaient notamment le salaire plus faible que celui des autres surspécialités, l'absence d'exposition durant la formation, les stigmates, et le manque d'intérêt à traiter des enfants. Le recrutement en psychiatrie bénéficiait de bons modèles de rôle, d'une exposition précoce à la faculté de médecine, d'un intérêt pour la recherche sur le cerveau, et d'enjeux de carrière et de mode de vie. Conclusions: Il faut redonner une nouvelle image du rôle et de la perception de la psychiatrie pour attirer de futurs psychiatres. L'exposition précoce aux innovations de la pédopsychiatrie et aux modèles de rôle positifs est essentielle pour attirer les étudiants en médecine. Le recrutement devrait débuter en première année de la faculté de médecine et comprendre un programme d'études enrichi.

Mots clés: psychiatrie de l'enfant et de l'adolescent, éducation, étudiants en médecine, recrutement

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Background

In Canada and elsewhere, child and adolescent psychia-Itry workforce shortages have become a growing concern (Sargeant et al., 2010; Parker et al., 2002). It is expected that the paucity of child psychiatrists and their uneven distribution within geographic (urban/rural) and subspecialty (child-adolescent, geriatric, forensic) areas will worsen, as recruitment fails to keep pace with increasing need for service or retirement (Parker et al., 2002). Access to timely and appropriate specialty mental health care for young people is a significant concern, with prevalence rates of psychiatric disorders in community samples of children and adolescents ranging from 15% to 25% (Parker et al., 2002). In Ontario, Canada, the problem of access is particularly problematic; the ratio of child psychiatrists to children with mental health needs is approximately one to 6,148 (Steele & Wolfe, 1999), falling short of the estimated need of one to 1,390 (Thomas & Holzer, 2006).

Despite an expansion in medical education over the last ten years, it appears that postgraduate training in psychiatry has not grown at the same rate as other specialties (Sargeant et al., 2010). Examining data from the Canadian Post-MD Education Registry (CAPER), Sargeant and colleagues (2010) reveal that from 2000 to 2008, psychiatry's graduating cohort decreased from 7.4% to 5.2%, while other medical specialties turned out a more constant proportion of new graduates. During this time, the total residency pool increased by 47.5%, however psychiatric residency positions increased at a slower rate (28.3%) than other disciplines, such as family medicine (46.4%), and surgical specialties (32%). As such, psychiatry's share of residency positions fell from 8.2% in 2000/2001 to 7.1% in 2008/2009.

On a more promising note, Canadian Residency Matching Service (2012) data from 2002 to 2012 reveal that, as a first-choice among Canadian medical graduates, psychiatry has remained fairly stable (between 4.4% and 5.4%) relative to available positions (between 5.3% and 6.4%); an 80% success rate. However, psychiatry is less successful in filling vacant positions following first-match iterations: between 2007 and 2012, the discipline's vacancy after first iteration averaged 14.2%, ranging from a low of 7.4% in 2010 to a high of 21.2% in 2011 (Canadian Residency Matching Service, 2012).

Despite a significant expansion in medical school enrolment over the last decade, a corresponding increase in the number of new psychiatrists has not materialized (Sargeant et al., 2010). This has implications for subspecialties within psychiatry, including child and adolescent psychiatry. Both the Canadian Academy of Child Psychiatry (Parker et al., 2002) and the American Academy of Child and Adolescent Psychiatry (2006) have acknowledged that psychiatric resources are grossly inadequate to meet demand, and that the problem is expected to worsen in the coming years.

The downward trend in psychiatric recruitment is not unique to Canada and has been recognized in a number of

jurisdictions (Katshnig, 2010), including the United States (Scully & Wilk, 2003; Vernon, Salsberg, Erikson, & Kirch, 2009), and United Kingdom (Brockinton & Mumford, 2002). Deciphering the declining interest in psychiatry is complex and dependent on many factors, including student attitudes, psychiatry's image, and availability of positions following graduation (Katshnig, 2010; Kirch & Vernon, 2008; De Moore, Smith, & Earle, 2006). Research from the United Kingdom, United States, and Australia reveals that medical students see psychiatry as understaffed, underresourced, lacking an evidence-base, and beset with heavy workloads and high public expectations (Lambert, Turner, Fazel, & Goldacre, 2006). Recruitment of child psychiatrists in Canada is also challenged by cutbacks in funding and competition from other subspecialties (Gray & Ruedy, 1998).

Given evidence that the incidence and severity of childhood mental health disorders are increasing, the availability of timely and effective psychiatric care to all Canadians is of concern (Wilkes, Oakley-Brown, & Jenner, 2008). While there is no definitive standard regarding optimal numbers of child psychiatrists per unit population (Parker et al., 2002), current data suggest that most Canadian jurisdictions experience a deficit of psychiatrists (Sargeant et al., 2010). Since psychiatric training involves a 10-15 year process, decisions made regarding medical specialty will affect the Canadian health care system for at least a decade (Sargeant et al., 2010). Further, a recent decision by the Royal College of Physicians and Surgeons of Canada approving Child and Adolescent Psychiatry as a subspecialty, requiring an extra year of residency training, may have implications for the recruitment and retention of psychiatrists, and ultimately child and adolescent psychiatrists. This study seeks to better understand factors influencing medical students to choose psychiatry, and more specifically, child and adolescent psychiatry as a specialty. The intent is to address the shortage of specialists in this field by providing guidance to medical school educators seeking to recruit medical students to child and adolescent psychiatry.

Methods

This study used a mixed method design, combining quantitative and qualitative methods. The quantitative component involved use of a web-based survey. The qualitative phase used in-depth interviews and a focus group, drawing on the interpretive interactionist framework (Denzin, 1989), which seeks to highlight the lived experience of individuals through the collection of thick description and personal experience stories.

Data Collection

The survey, utilizing online software, was distributed to all 80 child psychiatrists within the Division of Child and Adolescent Psychiatry at the University of Toronto. This sampling strategy was based on convenience (Miles & Huberman, 1994) and related to time/budget constraints, research

location, and logistics such as availability of contact information. The survey included questions related to retrospective reports of the factors that contributed to participants' decision to choose psychiatry and/or child and adolescent psychiatry as a specialty¹. Twenty-six responses (32.5%) were received, above the expected response rate of 27.4% (Dillman, 2000; Kwak & Radler, 2002).

To provide a more in-depth exploration of the survey questions, focus groups and semi-structured interviews were planned. Focus group invitations were sent to all 80 Division psychiatrists, as well as all (n=26) psychiatry residents located at The Hospital for Sick Children from July to December, 2010. Considerable difficulty was encountered in recruiting participants, and as a result, only one focus group was held with four psychiatry residents.

For the individual interviews, invitations were extended to eight individuals considered "information-rich cases" (Miles & Huberman, 1994); that is, individuals involved or familiar with postgraduate medical training and recruitment. Six individuals agreed to participate and interviews lasting 40 to 60 minutes were conducted either face-to-face or by telephone.

Data Analysis

Survey response data were analyzed using simple frequency statistics and graphic representations. An openended text report assisted in the analysis of multiple choice questions as well as verbatim responses. Qualitative interviews were audio taped and transcribed. The interview and field note transcripts were analyzed using the interpretive

interactionist framework (Denzin, 1989), which involved bracketing, construction and contextualization of findings.

Results

Online Survey

Of the 26 survey respondents, 53.8% were male (n=14); age ranged from under 34 to over 65, with an average of 47.1 years; years of experience working as a child psychiatrist ranged from 1 to 47 years (median 21). Twenty-five respondents (one non-respondent) indicated that some portion of their practice was devoted to child and adolescent psychiatry, with over 80% (n=21) indicating that more than 50% of their practice was devoted to child and adolescent psychiatry. The most common type of psychiatric service provided was out-patient (88%), followed by consultation (80%), private practice (40%), in-patient (36%), and other (32%).

Ninety-two percent (n=24) of survey respondents indicated that recruitment and retention of child and adolescent psychiatrists in Canada is a problem. Responders were asked to identify factors they believed encourage or deter medical students from choosing psychiatry (Table 1) as well as child and adolescent psychiatry (Table 2).

The top three endorsed factors that encourage medical students to choose psychiatry were:

- 1) good role modeling and an influential mentor during training;
- 2) early exposure to psychiatry during training; and,
- 3) an interest in brain research.

Table 1. Factors that encourage medical students to choose psychiatry (n = 25)	
Factors	Psychiatry
Good role modeling and/or influential mentor during training	25
Early exposure to psychiatry during training	24
Interest in brain research	23
Personal experience with mental illness	23
Lifestyle (hours worked, etc.)	19
Availability of jobs	14
Less expensive to set up practice	13
Interest in treating the whole body	13
Provide service to underprivileged populations	12
Other	5
Exposure to telepsychiatry during training	4
Collaborative and interdisciplinary nature of the specialty	4
Intervene early in the course of mental illness/make a difference	4
Fear of violence in adult mental health	1

¹ Questions relating to both psychiatry and child and adolescent psychiatry were included to tease out those factors specific to child and adolescent subspecialization.

Table 2. Factors that encourage medical students to choose child and adolescent psychiatry (n = 25)	
Factors	Child and adolescent psychiatry
Affinity toward children	25
Good role modeling and/or influential mentor during training	24
Intervene early in the course of mental illness/make a difference	21
Early exposure to psychiatry during training	20
Personal experience with mental illness	17
Collaborative and interdisciplinary nature of the specialty	16
Lifestyle (hours worked, etc.)	16
Availability of jobs	15
Interest in brain research	13
Provide service to underprivileged populations	11
Interest in treating the whole body	10
Fear of violence in adult mental health	8
Exposure to telepsychiatry during training	7
Less expensive to set up practice	7
Other	6

Table 3. Factors that deter medical students to choose psychiatry (n = 25)		
Factors	Psychiatry	
Stigma and/or lack of respect within medical field	25	
Lack of interest in psychiatry and mental illness	24	
Less prestigious than other specialties	23	
Lower salary than other career choices	20	
Poor role modeling and mentoring than other specialties	20	
Lack of confidence in therapeutic interventions; mental illness too difficult to treat	20	
Lack of exposure to psychiatry during training	17	
Lack of training in consultation model of service delivery	12	
Not supported by supervisor	12	
Do not like children	4	
Other	4	
Too difficult to treat children and adolescents	2	
Fewer job opportunities	0	

The top three endorsed factors for selecting child and adolescent psychiatry were:

- 1) an affinity toward children;
- 2) good role modeling and an influential mentor during training; and,
- 3) a belief that it is important to intervene early.

Participants also identified factors that deter medical students from choosing psychiatry (Table 3) and child and adolescent psychiatry (Table 4) as a career. The top three factors for psychiatry included:

- 1) perceived stigma and lack of respect within medical field;
- 2) lack of interest in mental illness; and,
- 3) a perception of psychiatry being less prestigious than other specialties.

Regarding the factors that deter medical students from selecting child and adolescent psychiatry, the top three were:

Table 4. Factors that deter medical students to choose child and adolescent psychiatry (n=25)		
Factors	Child and adolescent psychiatry	
Lower salary than other career choices	21	
Lack of exposure to child psychiatry during training	21	
Stigma and/or lack of respect within medical field	20	
Lack of confidence in therapeutic interventions; mental illness too difficult to treat	20	
Lack of interest in psychiatry and mental illness	19	
Less prestigious than other specialties	18	
Poor role modeling and mentoring than other specialties	18	
Too difficult to treat children and adolescents	16	
Do not like children	16	
Lack of training in consultation model of service delivery	15	
Not supported by supervisor	13	
Other	4	
Fewer job opportunities	1	

- 1) lower salary than other specialties, tied with lack of exposure during training;
- 2) stigma and lack of respect within medical field, and,
- 3) difficulty in treating mental illness.

Participants had the opportunity to provide comments, identifying other factors that influence medical students' career choices. The open-ended responses highlight three contributors to the problem of recruitment in psychiatry. First is the marginalization of child and adolescent psychiatry within medicine. Respondents suggested that psychiatry is seen as a "second tier" specialty; as "less prestigious, less rigorous, and less medical" than other specialties. A second issue relates to a "dumbing down of the profession (DSM checklist, manualized treatments)," that might feel more tedious and less interesting to medical students. A third contributor specific to child and adolescent psychiatry is that the work is considered complex and treatment modalities difficult to implement, often involving individuals in multiple systems such as education and social services.

The survey also included a question asking participants about a recent decision by the Royal College of Physicians and Surgeons of Canada to recognize child and adolescent psychiatry as a subspecialty, thereby requiring an extra year of residency training. Results found that 19 of 25 responders (76%) felt that this decision could negatively influence the recruitment of residents into child and adolescent psychiatry, while 6 of 25 responders suggested no impact (24%). Open-ended responses indicated that the extra year of training might deter candidates due to the increased cost and time, and pressures to start working. One respondent suggested that "this may be more of a deterrent for the undecided." Opposing views proposed that the subspecialty

designation will give "necessary legitimacy to the profession," and "enhance the credibility of the subspecialty."

Interviews and Focus Group

Results from qualitative interviews and the focus group provide a more in-depth exploration of survey questions, regarding factors that influenced participants' decision to choose psychiatry and more specifically, child and adolescent psychiatry. Four main themes were identified: 1) exposure to (child) psychiatry during training; 2) personal interest; 3) perceptions of (child) psychiatry; and, 4) career and lifestyle issues.

Exposure to (Child) Psychiatry During Training

One of the most critical aspects of recruitment into child and adolescent psychiatry identified in both the survey and in-depth interviews was early exposure during training as medical students and residents. The availability of relevant electives, lectures, and rotations in various treatment environments, as well as compelling mentors, all influenced participants' decisions to choose child and adolescent psychiatry as a specialty. One focus group resident indicated that an elective in eating disorders persuaded her move toward child and adolescent psychiatry. However, for the most part, residents indicated they had little guidance from superiors on how to choose a specialty, with one resident saying, "you have to figure it out on your own." Another indicated that they "didn't know what child psychiatry was or that it existed." This knowledge gap is attributed to the lack of an organized effort to steer residents into child and adolescent psychiatry as well as the way in which clinical rotations are structured.

Personal Interest

A specific interest in child and adolescent psychiatry was cited as a factor in the decision to choose it as a subspecialty. Similar to survey results, qualitative data reveal that this interest was sparked by a desire to work with children; a childhood experience with illness and hospitalization; and an interest in brain research and the complexity of psychiatric work. The challenge of working with young people was also a motivator for choosing child and adolescent psychiatry. The notion of dealing with the whole person and trying to understand "the story" was intellectually stimulating, as was the opportunity to work with the whole family. For one resident, working with young people was viewed as "more hopeful" since the gains made with adult patients are often minimal and frustrating. Ultimately, those who found interacting with children appealing and enjoyable were more likely to choose child and adolescent psychiatry.

Perceptions of (Child) Psychiatry

In concert with survey data, interview and focus group participants identified the stigma surrounding the practice of (child) psychiatry as a significant recruitment barrier. They suggested that within the medical professions, psychiatry is seen as a less attractive career option, based on the (mis) perception that mental illness is "ambiguous and difficult to treat" while other specialties deal with more "concrete and precise" problems. Participants stated that psychiatry is often seen as being outside the mainstream of medicine; this was particularly frustrating for residents, who recounted being told that psychiatrists are "not real doctors," that they are "lazy," and "deal with crazy people." Nevertheless, participants suggested that attitudes were changing as a result of evolving evidence and best practices in the field. With innovations in neurobiological and early intervention research providing a "wow experience" for students, the stigma surrounding psychiatry was lessening.

The perception of child and adolescent psychiatry as "time-consuming work" that is not always recognized as billable activity was identified as a barrier. Also, child psychiatry work was seen as excessively collaborative and involving complex family situations and issues beyond mental illness including poverty and criminalized behaviours. The inter-disciplinary nature of the practice of child and adolescent psychiatry was cited as a factor in specialists leaving the field. Not surprisingly, retaining psychiatrists is related to overall shortages in the field, resulting in fierce competition to recruit child psychiatrists.

Career and Lifestyle Issues

Participants identified career and working conditions as important determinants in choosing psychiatry as a specialty, and overlapped with factors identified as affecting recruitment within child and adolescent psychiatry. Though both qualitative and quantitative data identify lower salaries as a challenge to psychiatric recruitment efforts, participants indicated that this barrier was offset by increased job opportunities and work flexibility that allowed for "a life outside

of work." One psychiatrist suggested that lifestyle issues contributed to attracting females to the field. Furthermore, despite lower salaries in psychiatry, residents in the focus group revealed an awareness of ways to structure one's practice to make it more lucrative. It was also noted this would become less important in future, as funding moves away from procedural billing.

Lifestyle issues, such as the number of hours worked, was also highly endorsed in the survey data, with 19 respondents selecting it as an important factor. In the qualitative interviews, participants acknowledged that prestige and compensation is higher for other specialties and that the substantial debt incurred could lead students to choose more lucrative specialties.

The recent decision by The Royal College of Physicians and Surgeons of Canada to recognize child and adolescent psychiatry as a subspecialty, requiring an extra year of residency training, was presented as an additional recruitment challenge. Interview participants felt that medical students, saddled with tremendous debt and lured by other subspecialties, would not be interested in doing the extra year of training.

Focus group participants expressed confusion as to why the Royal College had implemented subspecialty training in child and adolescent psychiatry, especially given concerns over psychiatric resource shortages. Among the four residents participating in the focus group session, two stated that, while they were interested in treating older adolescents, they were not interested in seeing younger children (and even less so following the Royal College decision). A third participant stated that initially, she was "on the fence" about child and adolescent psychiatry, but had decided against it to avoid the extra year of training. The final participant revealed an interest in child and adolescent psychiatry from "the very beginning" and had structured her training accordingly. For her, the extra year of training would not be a deterrent. All participants acknowledged that the extra year of training would be a burden and made "no sense financially," given their debt load. As well, it was felt that there would be "ways around" subspecialization if one wanted to treat children and adolescents.

Discussion

This study provides insight into the factors that influence medical students to pursue a career in psychiatry, and more specifically, child and adolescent psychiatry. Psychiatrists and residents who participated indicated that the decision to specialize in child and adolescent psychiatry was based on a complex set of factors, influenced by experiences in early years of medical school and postgraduate training. While some factors overlapped in influencing participants in their choice of specialty and subspecialty training (for example, influential role models and mentors and early exposure to psychiatry electives during training), other factors emerged as unique to child and adolescent psychiatry, including an affinity toward children, and a desire to intervene early in

the course of mental illness and "make a difference." This study's focus on both psychiatry and child and adolescent psychiatry is relevant, given our belief that medical student attitudes toward psychiatry and its subspecialties are related and interconnected. While some medical students choose child and adolescent psychiatry from the outset based on an early and/or personal interest, others may come to the discipline from a more general interest in psychiatry, or with no initial interest at all.

Research suggests that the majority of doctors choose their specialty while in medical school or early postgraduate training, thereby requiring targeted interventions during these critical years (Harris, Gavel, & Young, 2005; Cameron & Persad, 1984; Galeazzi, Secchi, & Curci, 2003; Dein, Livingston, & Bench, 2007). These results align with our study, with both survey and interview data identifying early exposure as one of the most important aspects of recruitment. Also important is the quality of exposure to child and adolescent psychiatry. As reported by Manassis and colleagues (2006), participation in positive psychiatry electives and clerkship experiences were determining factors in psychiatric recruitment. This suggests that an organized effort is needed to introduce medical students and new residents to a variety of paediatric training opportunities, such as inpatient, telepsychiatry, and community mental health programs. Given that Canadian postgraduate medical education pressures students to select a specialty early in their training and provides little opportunity to switch tracks (Parker et al., 2002), a positive experience with such programs may help sway students who are undecided about a specialty.

Canadian data on trends in postgraduate training reveal that psychiatry is very successful in attracting interested trainees as a first career choice, but is not as strong as other specialties as a second or subsequent choice (Sargeant et al., 2010). This suggests that there is considerable scope for improving recruitment efforts. Study results suggest that a worthwhile goal involves offering more formal mentorship programs, and increasing informal interaction between child and adolescent psychiatry residents and medical students. As reported elsewhere (Manassis, Katz, Lofchy, & Wiesenthal, 2006; Tamaskar & McGinnis, 2002; Stubbe, 2002), our results indicate that a key factor in choosing psychiatry as a career specialty is exposure to positive role models and meaningful mentoring relationships with supervisors, professors, and senior residents. These results are not unique to psychiatry, with similar findings reported in a study focused on family medicine (Jordan, Brown, & Russell, 2003). Psychiatric residents in our study reported a lack of knowledge regarding what a career in child and adolescent psychiatry would entail, citing limited communication with supervisors and senior residents around issues as diverse as clinical problems, remuneration schemes, and job opportunities. These results suggest that better communication is required to promote the professional and personal benefits of a career in (child) psychiatry, and prevent trainee loss and attrition.

Following an affinity toward children and exposure to effective mentorship, survey data identify the opportunity to intervene early in the course of mental illness as the most important factor in attracting medical students to child and adolescent psychiatry. For psychiatry in general, an interest in brain research was as equally important. Among interview and focus group participants, the complex nature of child and adolescent psychiatry and the challenge of working with young people were identified. These data are consistent with previous work suggesting the interface of psychiatry with neuroscience and evidence-based research is an important factor for medical students choosing psychiatry (Galeazzi et al., 2003; Dein et al., 2007). These findings confirm that recruitment efforts could be positively influenced by communicating and capitalizing on recent advances in psychiatry, such as the excitement surrounding early psychosis intervention research and the possibility of preventing or delaying the onset of a psychotic disorder in young people (Yung, Nelson, Thompson, & Wood, 2010).

Especially important for medical school educators to consider are strategies to challenge the negative factors that may discourage psychiatric candidates, including stigma and professional stereotypes. For example, in a focus group study investigating how future psychiatrists and internists made career decisions, the most important factors for rejecting a career in psychiatry included low possibility of using their medical training and perceived low efficacy of psychiatric treatments (Kuzel & Moore, 1999). The formal approval of child and adolescent psychiatry by the Royal College provides an opportunity to improve the discipline's profile within medicine and enhance the credibility of the subspecialty as distinct from the rest of psychiatry and requiring additional training. In essence, a "rebranding" of the roles and perceptions of child and adolescent psychiatry and psychiatry more generally may be timely.

Limitations

This study involved a select sample of child psychiatrists and residents providing retrospective accounts. As well, except for two qualitative interviews, participants were restricted to the University of Toronto for reasons of funding and time constraints. Future research would benefit from a more diverse group of psychiatrists and residents, including those who choose other specialties, as well as medical students who have yet to make a decision. Furthermore, recruitment into the qualitative phase of the study was limited by the availability of child psychiatrists and residents to participate in an interview or focus group.

Conclusion

Projections for the next decade indicate that there will be an increasing need for psychiatric services but a decreasing pool of child and adolescent psychiatrists. The number of Canadian medical graduates and postgraduate trainees is the factor most likely to have an impact on Canada's future psychiatric workforce, and new strategies are needed to entice medical students into the profession (Parker et al.,

2002; Kim, 2003). First, it is important for psychiatric recruitment officers to ensure that the specialty is well represented in undergraduate medical education. Second, this study, among others (Sargeant et al., 2010) suggests that child psychiatrists contribute to education efforts such as curriculum planning, to build awareness and foster collaboration. Additionally, advocacy and education efforts need to be directed at other medical disciplines to ensure respect for psychiatry and understanding of the important role it plays in the overall health care system. Lastly, given the declining number of medical students choosing psychiatry as a specialty and the decision by the Royal College to introduce an extra year of training for child and adolescent psychiatry, further research is recommended to understand these factors more fully in an attempt to improve recruitment efforts.

Acknowledgements / Conflicts of Interest

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References

- American Academy of Child and Adolescent Psychiatry (2006). AACAP Workforce Fact Sheet. Washington, D.C.
- Brockington, I., & Mumford, D. (2002). Recruitment into psychiatry. British Journal of Psychiatry, 180, 307-312.
- Cameron, P., & Persad, E. (1984). Recruitment into psychiatry: A study of the timing and process of choosing psychiatry as a career. *Canadian Journal of Psychiatry*, 29(8), 676-680.
- Canadian Post-MD Education Registry (CAPER) (2009). Ottawa. Retrieved from http://www.caper.ca.download publications en.php.
- Canadian Resident Matching Service (2012). Ottawa. Retrieved from http://www.carms.ca/eng/r1_about_intro_e.shtml.
- De Moore, G., Smith, K., & Earle, M. (2006). From golden beaches to the heartland: Reflections of NSW rural trainees. *Australian Psychiatry*, *14*(1), 72-75.
- Dein, K., Livingston, G., & Bench, C. (2007). 'Why did I become a psychiatrist?': Survey of consultant psychiatrists. *Psychiatric Bulletin*, *31*, 227-230.
- Denzin, N. (1989). Interpretive Interactionism. Newbury Park, CA: Sage. Dillman, D. (2000). Mail and Internet Surveys: The Tailored Design Method. New York, NY: Wiley.
- Galeazzi, G. M., Secchi, C., & Curci, P. (2003). Current factors affecting the choice of psychiatry as a specialty: An Italian study. *Academic Psychiatry*, 27(2), 74-81.
- Gray, J. D., & Ruedy, J. (1998). Undergraduate and postgraduate medical education in Canada. *Canadian Medical Association Journal*, 158(8), 1047-1050.
- Harris, M. G., Gavel, P. H., & Young, J. R. (2005). Factors influencing the choice of specialty of Australian medical graduates. *Medical Journal of Australia*, 183(6), 295-300.

- Jordan, J., Brown, J. B., & Russell, G. (2003). Choosing family medicine: What influences medical students. *Canadian Family Physician*, 49, 1131-1137.
- Katshnig, H. (2010). Are psychiatrists an endangered species? Observations on internal and external challenges to the profession. World Psychiatry, 9, 21-28.
- Kim, W. J. (2003). Child and adolescent psychiatry workforce: A critical shortage and national challenge. Academic Psychiatry, 27, 277-282.
- Kirch, D. G., & Vernon, D. J. (2008). Confronting the complexity of the physician workforce equation. *Journal of the American Medical Association*, 299, 2680-2682.
- Kuzel, A. J., & Moore, S. S. (1999). Choosing a specialty during a generalist initiative: A focus group study. *Family Medicine*, 31(9), 641-646.
- Kwak, N., & Radler, B. (2002). A comparison between mail and web surveys: Response pattern, respondent profile, and data quality. *Journal of Official Statistics*, 18(2), 257-273.
- Lambert, T. W., Turner, G., Fazel, S., & Goldacre, M. J. (2006). Reasons why some UK medical graduates who initially pursue psychiatry do not pursue it as a long-term career. *Psychological Medicine*, 36, 679-684
- Manassis, K., Katz, M., Lofchy, J., & Wiesenthal, S. (2006). Choosing a career in psychiatry: Influential factors within a medical school program. *Academic Psychiatry*, 30(4), 325-329.
- Miles, M. B., & Huberman, A. M. (1994). Qualitative Data Analysis, 2nd Ed. Thousand Oaks, CA: Sage.
- Parker, Z., Steele, M., Junek, W., Morin, L., Davidson, S., Fleisher, W.,... Yates, T. (2002). Child Psychiatry in Canada: Physician Resources. Position Statement, Canadian Academy of Child Psychiatry Physician Resources. Retrieved from: http://ww1.cpa-apc.org:8080/Publications/ Position_Papers/child.asp.
- Sargeant, J. K., Adey, T., McGregor, F., Pearce, P., Quinn, D., Miley, R.,...Dada, N. (2010). Psychiatric human resources planning in Canada. *Canadian Journal of Psychiatry*, 55(9), 1-20.
- Scully, J. H., & Wilk, J. E. (2003). Selected characteristics and data of psychiatrists in the United States, 2001-2002. Academic Psychiatry, 27, 247-251.
- Steele, M., & Wolfe, V. V. (1999). Child psychiatry practice patterns in Ontario. Canadian Journal of Psychiatry, 44(8), 788-792.
- Stubbe, D. E. (2002). Preparation for practice: Child and adolescent psychiatry graduates' assessment of training experiences. *Journal* of the American Academy of Child and Adolescent Psychiatry, 41, 131-139.
- Tamaskar, P., & McGinnis, R. (2002). Declining student interest in psychiatry. *Journal of the American Medical Association*, 287, 1859.
- Thomas, C., & Holzer, C. (2006). The continuing shortage of child and adolescent psychiatrists. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(9), 1023.
- Vernon, D. J., Salsberg, E., Erikson, C., & Kirch, D. G. (2009). Planning the future of mental health workforce: With progress on coverage, what role will psychiatrists play? *Academic Psychiatry*, 33, 187-192.
- Wilkes, C. M., Oakley-Brown, M., & Jenner, B. L. (2008). Attracting psychiatrists to a rural area: 10 years on. *Rural Remote Health*, 8(1), 824.
- Yung, A. R., Nelson, B., Thompson, A., & Wood, S. J. (2010). The psychosis threshold in Ultra High Risk (prodromal) research: Is it valid? Schizophrenia Research, 120, 1-6.