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Title	**Can physicians meet the need for publicly funded psychotherapy in Ontario? A population-based retrospective cohort study**
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Reviewer 1	Dr. Adrian MacKenzie
Institution	Dalhousie University, Halifax, NS
General comments (author response in bold)	I applaud the authors' interest in testing others' claims that more of the same (in this case, more psychiatrists) - is all that is needed to address major problems facing health care systems (in this case, access to mental health services). I think some restructuring of the paper is needed to fully achieve this aim. The study objective as stated in the abstract (it is not stated in the body of the paper) seems to comprise three separate activities. The first is evaluating the availability of publicly funded psychotherapy in Ontario. The second is describing PCPs and psychiatrists whose practices focus on psychotherapy. The third is comparing these physicians to PCPs and psychiatrists whose practices do not focus on psychotherapy. While the link between the second and third of these activities is clear, I do not see where the authors have linked them with the first. Put another way, they have not explained how describing and comparing groups of physicians contributes to evaluating the availability of one of the provincial health care system's publicly funded services. Related to this point, I do not see a clear link between the two questions/knowledge gap this study is positioned as addressing and its methods. The first question has to do with demand for psychotherapy; demand for psychotherapy is not quantified until the Discussion section, and then is done so in a cursory manner. The second question has to do with numbers of additional physicians required to meet the demand for psychotherapy; this does not appear to be measured anywhere. **We have addressed this reviewer's comments in Point 1 above (Page 1).** The study findings quantifying the numbers of patients seen and services provided by different types of physicians providing psychotherapy are relevant to physician resource and mental health service planning in the province, and support the authors' contention that simply training more psychiatrists without also changing where they tend to locate and how they tend to practice is not a viable strategy for meeting Ontarians' need for psychotherapy. I do not see how the study results (emphasis mine - please forgive the all-caps as I don't think this review portal will support italics) "address the question of whether physician psychotherapists CAN ADDRESS population need for psychotherapy in Ontario." The content of the results section, together with the crude demand estimate calculated in the discussion section, demonstrate that physician psychotherapists HAVE NOT ADDRESSED population need for psychotherapy in Ontario; this is an important yet separate question from whether it is possible for them to do so. Addressing the latter question would require different methods. I do not see how the authors have proven that "the existing complement of Ontario psychotherapist physicians cannot meet the need for psychotherapy for common mental disorders" in the province. Doing so would require a more exhaustive identification and exploration of alternative scenarios under which the deployment and practices of psychotherapist physicians were better aligned with population need. For example, could each of the ~2,000 psychiatrists in the province be relocated so as to (as evenly as possible) distribute the ~900,000 Ontarians with anxiety or depression among them, for a roster of ~450 each? And could they also be relieved of other responsibilities so as to enable them to deliver more psychotherapy? I am not suggesting these are plausible scenarios (I expect they are not) - rather that they have not been shown to be impossible. In the same vein, while I see how the statements that this is the first Canadian study to measure publicly funded psychotherapist physicians (are there no psychologists, social workers, counsellors, or others providing publicly funded psychotherapy in Ontario?) and their practice patterns are justified, I do not see where the study has measured those physicians' ability to respond to urgent need.

	This is a lengthy point. While we understand, theoretically, the point of this reviewer (it may be theoretically possible for the current supply of psychotherapists to meet demand), it is not a practical conclusion. We have identified the number of physician psychotherapists, the practice patterns of these psychotherapists, and the proportion of patients in urgent need of access to psychiatric care (including psychotherapy) who are accessing physician psychotherapists. Finally, the number of psychotherapists and their practice patterns has not been known publicly (to our knowledge) prior to this study. Accordingly, we believe we are in a position to state that the existing supply of psychotherapists cannot meet demand, and that implicit in that statement is the contribution of their current practice patterns. In the Interpretations section, we then go on to discuss the likelihood of fee schedule modifications to address the practice issues and, importantly, how other jurisdictions have addressed access to psychotherapy. **To be clear, I think the study methods and results make a valuable contribution. The points I have noted above pertain to better aligning the introduction and discussion with this contribution.** Below are some more minor methodological and editorial comments: 1. The authors may wish to distinguish more clearly between the concepts of need for, demand for, and utilization of psychotherapy. In reading the paper it seemed to me that the first two, in particular, were used interchangeably. 2. Using a 50% of billings cutoff in characterizing physicians as psychotherapists or non-psychotherapists seems to warrant some rationale. Alternatively, the authors could simply refer to the two groups as being those whose billings are mostly psychotherapy or not. Related to this point, it is not clear whether physicians were categorized according to the number or the dollar value of their billings, or why. **In the first line of the Methods section, we state that physicians (both PCPs and psychiatrists) were categorized as psychotherapists based on whether or not 50% or greater of their billings were dedicated to psychotherapy. This aligns with the reviewer's suggestion to "refer to the two groups as being those whose billings are mostly psychotherapy or not." Since billings have a dollar value, and the dollar value for psychotherapy codes would apply to all PCPs and psychiatrists, respectively, the billings would equate to dollar values. In other words, billing codes and dollar values could be used interchangeably since billing codes have dollar values.** 3. Some rationale for excluding inpatient services from the study seems warranted, particularly when psychiatric hospitalization is used as a measure of access to physicians for urgent mental health service needs. **While it is true that inpatient services are an important aspect of the mental health system, patients seeking psychotherapy do not receive such services in inpatient settings. Similarly, psychiatrists who are providing services on inpatient settings are not typically providing psychotherapy. Psychotherapy is provided in ambulatory settings. For these reasons, inpatient services were excluded as this study was focused on the study of psychotherapy in Ontario.** 4. Physicians were categorized as full-time or not according to their total annual billings. Depending on the relative billing cost of psychotherapy, might this method of full-time categorization make it more likely that physicians providing higher or lower amounts of psychotherapy to be categorized as full-time, regardless of the hours they actually keep? **Please see the response to Point 4 above. The Full-Time equivalent metric applies to all physicians in a category. It is true that the relative billing for psychotherapy**

	might influence how physicians are calculated, but accounting for this would require us to deviate from the CIHI definition of full-time. Interestingly, there was no difference in the proportion of physicians who were full-time in the two psychiatrist groups, and the results were very close to the 70% one would expect from the 70% CIHI cut-off. 5. Some rationale for the choice of categories for the numbers of patients seen per year seems warranted. **Please see the response to Point 5 above.** 6. The methods described for measuring access to physicians for patients with urgent need for mental health services seem to presume that this need is indicated exclusively by ED visits and hospitalizations; surely people who are able to access these services are a subset of the broader population experiencing urgent mental health needs. **Yes, these patients are a measurable sub-set of a broader sub-set of patients who have urgent need for mental health services. However, given they are an identifiable population, we can use this sub-set as a proxy for the capacity of the physicians in the four categories to respond to urgent need. We have included the following statement in the Methods section to make our intention clear with respect to these analyses:** **"These four patient groups are representative of paitents in urgent need of mental health services."** 7. I see no evidence of any consideration that patients' mental health status/history of mental illness may have (one hopes!) contributed to the services for which their physicians billed (I would expect, for example, that physicians whose practices include more patients with conditions amenable to psychotherapy are more likely to provide psychotherapy). Addressing this point would strengthen the paper. **We respectfully believe that the suitability of patients in a given practice for a particular modality of treatment like psychotherapy is a different objective than our stated objective. Our objective is now clearly stated as describing the health resource capacity for psychotherapy in Ontario (and not the suitability of the provision of psychotherapy in a given practice).** 9. I think further explanation of the standardized difference method used to compare groups of physicians, together with a rationale for this choice of method, would strengthen the paper. **We often use standardized differences to compare two or more populations when the sample sizes are as large as in our study. Typical P value estimates of statistical significance are sensitive to large sample size – almost all comparisons would be deemed statistically significant despite very small differences. Standardized differences are not as sensitive to sample size, and therefore more useful to help determine differences in large sample sizes. We include a reference that explains the methodological basis of this for those who are interested. We have also included the following clarification:** **"With large sample sizes, P values are often significant with very small differences, whereas a standardized difference is less sensitive to sample size. A standardized difference of greater than 0.1 is considered clinically significant9."** 10. While I do not dispute the view that "existing PCPs and psychiatrists dedicating their practice to psychotherapy have practice patterns that are not responsible to populations with urgent mental health needs", I think it is a stretch to say that the results of this study are sufficient, on their own, to demonstrate this. Perhaps some more explanation of the

	clinical context that framed this component of the analysis would clarify the point. **We believe that the 4 patient groups with urgent mental health needs are a reasonable proxy of access to urgent need more generally. We also believe that because psychotherapists saw far fewer of these patients with urgent need relative to non-psychotherapists, that the statement is correct. We have modified the sentence to ensure readers know that we are basing this assertion on our findings.** **"Furthermore, our findings demonstrate that existing PCPs and psychiatrists dedicating their practice to psychotherapy have practice patterns that are not responsive to populations with urgent mental health needs based on the proportion of patients with urgent need who accessed psychotherapist physicians."** 11. Since the study included a fraction of Ontario physicians, I do not think its findings are sufficient to claim that individuals with ED visits for self-harm or substance use saw no physician within 30 days of discharge. **This study included all Ontario PCPs and psychiatrists, and it is unlikely that patients in the urgent need category would have seen specialists other than psychiatrists for their mental health needs. That said, we have modified our statement to indicate that the patients did not have any visit to a PCP or psychiatrist, in keeping with our physician sample of the entire Ontario population of PCPs and psychiatrists.** 12. There is no evidence provided to support the statement that the OHIP payment process largely explains low practice/high frequency visits (though again, I do not dispute the statement itself). **We cite two prior studies from our team that support this statement. We believe this study's findings are in keeping with the findings from the previous studies which support the claim that the structure of the fee schedule "largely explains" what we are observing.** 13. A reference for HMOs' provision of psychotherapy by non-physicians, similar to the one provided for the IAPT model, would strengthen the paper. **We have included a reference that explains HMOs and their approach to the delivery of mental health services.**
Reviewer 2	Dr. Joel Paris
Institution	McGill University, Psychiatry, Montréal, Que.
General comments (author response in bold)	This excellent paper addresses an issue of significance to public health and the delivery of services. As the authors point out, evidence-based forms of psychotherapy are as well supported in the research literature as antidepressants, and in some ways better supported. But the Canadian system only insures MDs, and the number who do psychotherapy has been decreasing (see Mark Olfson for US data). While the paper is careful to restrict its conclusions to Ontario, the problem is Canada-wide. The only inter-provincial difference would be that outside of Toronto and Ottawa, very few psychiatrists run an almost full-time therapy practice of the kind described here. 1. Perhaps a bit more can be said about alternative solutions. Obviously, the claim that adding more psychiatrists would address the problem is wrong. IAPT in the UK is the best model, but it can run into problems with high demand and waiting lists. Moreover, IAPT does not offer specialized treatments (e.g., DBT) that may manage more severe cases better than standard CBT. As for the US system, it is misleading to say that HMO's offer adequate care to more than a minority. Most are not covered at all, and those who are may only get a few sessions, much like in Canada's employment assistant programs for those who have such benefits.

	We agree with the reviewer that there are limitations to the examples we have provided. These are the only substantive interventions we are aware of to address the issue of access. We have included a sentence that clarifies what the reviewer is stating. **"These are all examples that improve access in some capacity but have limitations. The need for innovation in mental health to improve access and quality of care is quite urgent."** 2. Perhaps this issue goes beyond the scope of the paper, but given the evidence that psychotherapy need not go beyond 20 sessions, and that this kind of Rx is quite cost-effective, shouldn't we consider insuring psychologists who work outside the public sector? We don't disagree with the reviewer about the possibility of including psychologists, but also agree with him that this is beyond the scope of this paper. 3. There are a few minor typos that can easily be fixed.