

The Shortage of Access to Therapists in Cambridge, Massachusetts in the United States: A Pandemic Study

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ABSTRACT: The COVID-19 pandemic and lockdown have affected the health and safety of students of all ages across the globe, causing insecurity, confusion, emotional isolation, distress, and other psychiatric conditions. Specifically, young people between the ages of 5 to 19 are more vulnerable to mental health issues, and COVID-19 has become a source of many young people's anxiety. This study aims to investigate the availability of mental health professionals, especially during the post-pandemic time when telehealth is readily available, but there is a lack of therapists. Our study used zip codes 02138 and 02139 from Cambridge to find therapists. Cambridge is an area with a large number of adolescents and college students due to the presence of numerous high schools and universities; this made Cambridge a prime location to study. To message therapists, we used the website psychologytoday.com. Our results showed that only 6 out of 636 therapists responded to emails from the Cambridge database. Of those 6, only 0.31% of the 636 therapists replied with an open slot for a new client. 0.63% accounted for those with no availability. In conclusion, our findings showed a massive mental health professional shortage. This study emphasizes the need to address the current therapist shortage issue in the United States.

KEYWORDS: Behavioral and Social Sciences, Psychology; Therapist; Accessibility; Shortage.

■ Introduction

After the COVID-19 lockdown, an increasing number of people have been searching for and needing mental health help via therapy. The COVID-19 pandemic affects the health and safety of students of all ages, causing insecurity, confusion, emotional isolation, distress, and other psychiatric conditions. Social distancing and school lockdowns forced children to experience school through the internet. This further escalated the mental health problems in children: young people between the ages of 5 to 19 are more vulnerable to mental health issues, and COVID-19 has become the source of the anxiety many young people face.¹ Studies show that access to healthcare services is vital for all stages of life, and accessibility of these services allows for more prompt diagnosis of health problems. This, as well as faster detection of mental health problems, allows for conditions to be treated more proactively.² However, despite this need for therapy spiking, there is still limited access to therapy; demand greatly outweighs the supply, with students and adolescents not having access to professional care.^{3,4}

A sample of 50 thousand adults reported that 95.6% have at least one barrier preventing them from healthcare access, including mental health services. Extreme shortages of mental health prescribers (psychiatrists) or non-prescribers (i.e., other licensed mental health professionals like psychologists, social workers, counselors, therapists, etc.) have been found in 77% of U.S. counties, and 96% have had an unmet need for prescribers. One-third of Americans with mental health issues receive treatment from mental health professionals, meaning that two-thirds cannot access professional help.⁴⁻⁶

This study aims to analyze the accessibility of mental health professionals, especially during the post-pandemic time when

telehealth is readily available, but there is a lack of therapists. We define in our study therapists as psychologists, social workers, and other therapists. We excluded other professionals who may be helpful but are unconventional providers and often need to be included in licensed therapy databases, like personal aides, energy workers, reflexologists, hypnotherapists, etc. We hypothesize that after the COVID-19 pandemic, people's access to therapists has been limited due to high demand and not enough therapists.

■ Methods

The zipcodes 02138 and 02139 were used from Cambridge to find therapists. To message therapists, the website psychologytoday.com was used.⁷ Using their email messaging system, all of the therapists contacted in Cambridge were sent the same message (below). The 02138 and 02139 zip codes covered the author's location, which includes the Harvard University and MIT school zones. This was to examine the availability of therapists for students in these universities. The availability/options of therapy are essential for university students, especially those from Harvard and MIT, so this was a critical area to check. All therapists in each zip code were messaged except those who explicitly stated that they were not accepting new clients in their description box.

The therapists who were not taking new clients had their names still written down in the spreadsheet, but it was indicated that they needed to be messaged. Clinics and counseling centers were also messaged, and no types of therapists were excluded. The goal for all of the messages was to find the therapist's soonest appointment availability. In the case of vague answers, therapists were explicitly asked for the date and time of their earliest availability. To record the data, the date of re-

quest and the date of response from the therapist was recorded. To record the data, the date of request and response from the therapist was written in a google spreadsheet. If provided, the date of the earliest consultation was written in the spreadsheet. Those who said that they had a waitlist in their psychologytoday.com profile were still emailed for their waitlist. Only some responded, and those who did were asked about the waitlist times.

■ Results and Discussion

Results:

In the Cambridge Round 1 dataset (Table 1), 865 therapists were viewed on the PsychologyToday website, and 636 emails were sent to them (Table 1 and Table 3). Out of the 636 emails, only six replied to the email, and of those 6, 4 therapists replied with no availability, making up 0.63% of the total therapists. The other two therapists replied with availability, making up 0.31% of 636 therapists. Forty-one therapists indicated on psychologytoday.com that they were accepting waitlists, making up 4.74%. However, 0 therapists responded with any waitlist. Two-hundred twenty-nine therapists were already not taking new patients, so they were not emailed, and 630 therapists still need to respond to their email, taking up the extreme majority of 99.05% (Table 1).

In the Cambridge Round 2 dataset (Table 2), 826 therapists were viewed on the PsychologyToday website, and 603 emails were sent out to them (Table 2 and Table 4). Out of the 603 emails, only eight replied to the email, and of those 8, 4 therapists replied with no availability, making up 0.66% of the total therapists. The other four therapists replied with availability, making up 0.66% of 603 therapists. Twenty-eight therapists indicated on psychologytoday.com that they were accepting waitlists, making up 3.39%. However, only one therapist responded with any waitlist, making up 0.17% of therapists contacted. Two-hundred twenty-three therapists were already not taking new patients, so they were not emailed, and 595 therapists still need to respond to their email, taking up the extreme majority of 98.67% (Table 2).

Table 1: Data Collection Round 1: Therapists Contacted in February-March 2022 in Cambridge: 02138, 02139

Types of Responses	# of Messages	Percentage
Yes responses	2	0.31%
No responses	4	0.63%
Waitlist responses	0	0.00%
Total responses received	6	0.94%
Total responses not received	630	99.06%
Total Messages Sent	636	100.00%

02138, 02139 = Zip Codes in Cambridge used in data collection round 1. Total = Number of therapists messaged through psychologytoday.com. Yes response = therapist agrees to accept new patients. No response = therapist is currently not accepting new patients. Waitlist response = therapist is putting patients on a waiting list. Total responses received = Yes, No, and Waitlist responses combined. Total responses not received = therapist did not respond to email. Total messages sent = total responses received and total responses not received combined.

Table 2: Data Collection Round 2: Therapists Contacted in July 2022 in Cambridge: 02138, 02139

Types of Responses	# of Messages	Percentage
Yes responses	4	0.66%
No responses	4	0.66%
Waitlist responses	1	0.17%
Total responses received	8	1.33%
Total responses not received	595	98.67%
Total Messages Sent	603	100.00%

02138, 02139 = Zip Codes in Cambridge used in data collection round 2. Total = Number of therapists messaged through psychologytoday.com. Yes response = therapist agrees to accept new patients. No response = therapist is currently not accepting new patients. Waitlist response = therapist is putting patients on a waiting list. Total responses received = Yes, No, and Waitlist responses combined. Total responses not received = therapist did not respond to email. Total messages sent = total responses received and total responses not received combined.

Table 3: Comparison of data (Feb-Mar 2022) vs. therapist profile info on PsychologyToday

From Data Collection (Feb-Mar 2022)			From PsychologyToday Profile		
Responses Received	# of Messages	Percentage	Status on Profile	# of Messages	Percentage
Yes responses	1	0.15%	"Yes, currently accepting patients"	595	68.79%
No responses	3	0.47%	"No, not taking new patients"	229	26.47%
Waitlist responses	0	0.00%	"Currently accepting new patients on Waitlist"	41	4.74%
Total Messages Sent (Yes + Waitlist)	636	73.52%	Total Messages Sent (Yes + Waitlist)	636	73.52%
Total Message Not Sent (labeled "No, not taking patients")	229	26.47%	Total Message Not Sent (labeled "No, not taking patients")	229	26.47%
Total Therapists listed in 02138 + 02139	865	100.00%	Total Therapists listed in 02138 + 02139	865	100.00%

Therapists with the status "Currently Accepting Patients" + "Currently Accepting Patients on Waitlist" on their profile were messaged on PsychologyToday. Therapists with the status "No, not taking new patients" on their profile were not messaged.

Table 4: Comparison of data (July 2022) vs. therapist profile info on PsychologyToday

From Data Collection (July 2022)			From PsychologyToday Profile		
Responses Received	# of Messages	Percentage	Status on Profile	# of Messages	Percentage
Yes responses	4	0.66%	"Yes, currently accepting patients"	575	69.61%
No responses	4	0.66%	"No, not taking new patients"	223	26.99%
Waitlist responses	1	0.17%	"Currently accepting new patients on Waitlist"	28	3.39%
Total Messages Sent (Yes + Waitlist)	603	73.00%	Total Messages Sent (Yes + Waitlist)	603	73.00%
Total Message Not Sent (labeled "No, not taking patients")	223	26.99%	Total Message Not Sent (labeled "No, not taking patients")	223	26.99%
Total Therapists listed in 02138 + 02139	826	100.00%	Total Therapists listed in 02138 + 02139	826	100.00%

*Percentages calculated based on total messages sent (603).

■ Discussion

Our results show the lack of accessibility that people have when searching for therapists. With only six out of 636 therapists messaged responding at all to the email, the data shows an extreme lack of responses from therapists and the number of available therapists.

This is highly detrimental and can cause undue harm to those searching for help who may have undiagnosed mental disorders by making them feel more isolated, like they did something wrong in their search, despite the effort it took to search for therapists. This may cause those looking for therapists to give up on their search. Not even receiving a response from a therapist could lead to dangerous results, and it may lead some people to make decisions that would be detrimental to themselves or others.

People searching for therapists must contact many therapists to get a response, then decide whether or not that therapist can accommodate their needs. This increases the time between a client's need for help and the client receiving support, forcing

people to spend more time with undiagnosed and untreated conditions. When accounting for children ages 5-19 needing mental health therapy, especially after and during the pandemic, these results demonstrate that children and adolescents must wait an incredibly long amount of time before receiving help, if at all.¹²

The first round of data was obtained in February and March of 2022 from Cambridge, an area with a large number of adolescents and college students, primarily due to the presence of Harvard University, MIT, Boston Latin High School, and Cambridge Rindge High School. Students experiencing stress caused by school face restricted access to mental health help due to the minimal number of therapists willing to respond to requests and may or may not be available after that. Despite the large number of therapists available to contact via PsychologyToday, 99.1% of the therapists in the 02138 and 02139 zip codes have yet to respond to requests for an initial consultation or meeting.

The second round of data in Cambridge was obtained in July 2022. This was to determine whether the presence of college and high school students, who comprise a large proportion of the Cambridge population, may be associated with the number of therapists available in the 2 Cambridge zip codes tested in February and March 2022: 02138 and 02139. High school and college students who may have been getting therapy during the first round of data collection, which occurred during the school year, were likely out of the city due to summer programs and internships that take them to cities across the country. Therefore, the hypothesis for the second round of data collection was that there would be more availability of therapists during the summer when high school and college students are not in town.

The same methodology was followed to determine therapist response rates and availability. The data collected in July 2022 showed therapist response rates to be 1.33% and availability rates to be 0.66%. This demonstrates that, unfortunately, response rates were not much higher during the summertime, invalidating the hypothesis that the lack of available therapists was due to large numbers of students taking up much of the therapists' time during the school year. These results reveal the unfortunate fact that there was no marked difference in therapist response rate or availability based on reaching out to them via PsychologyToday, a significant resource for those seeking therapy.

The data also showed that the information on therapist profiles on PsychologyToday was not current. For example, in the first round of data collection in February-March 2022, the number of therapists that claimed to be taking patients on a waitlist was 41 (6.45%); in the second round of data collection in July 2022, the number of therapists that claimed to be taking patients on a waitlist was 28 (4.64%). In addition, in February-March 2022, the number of therapists who responded and confirmed they had a waitlist was 0 (0.00%); in July 2022, the number of therapists who responded and confirmed they had a waitlist was 1 (0.17%).

It is difficult to compare the exact differences between real-time therapist availability / up-to-date information compared

to their PsychologyToday profiles because of the extreme lack of responses. We only messaged therapists who labeled their profiles "currently accepting new patients." However, of the few responses received, 4 (0.66%; July 2022) and 1 (0.16%; February-March 2022) were not accepting patients, which contradicted their status at the time of data collection on their PsychologyToday therapist profile.

The limitations of this study were the method of communication, number of websites used, amount of zip codes and states, and the lack of data pre-covid-19 pandemic. Since the analysis was only performed on zip codes in Cambridge, it is challenging to apply our conclusion to the entire United States. In addition, our method of communication was limited to only email, allowing for gaps between responses and a lack of thorough interaction with therapists if they could only call.

A possible solution to the problem of the therapist shortage is eliminating geographical limitations and utilizing a new technology. The number of people looking for remote therapy has been increasing recently. In addition, other studies by numerous researchers have demonstrated that telehealth is effective and adaptable.^{15,16} Many online platforms, such as Betterhelp and Talkspace, two companies based in the US, are widely used by patients globally. Such online platforms deal with more than 2.9 million messages, video sessions, phone calls, and live chats. This shows how people are increasingly adapting to online therapy to avoid unwanted delays. In addition, online therapies can be more convenient, cover a vaster range of therapists, and make quick availability and more affordable.

Numerous free healthcare applications, such as MindShift, PTSD Coach, BellyBio, Relax with Andrew Johnson Lite, and eMoods Classic, are available to treat anxiety, post-traumatic stress disorder (PTSD), depression, and bipolar disorder. Chatbots can also help fulfill the deficiency of therapists and other mental health professionals. The usage of artificial intelligence (AI), and machine learning (ML), a form of AI, is gaining more interest among therapists to treat patients.¹⁷ Lyssn, a health clinic, uses algorithms to examine conversations with patients and therapists to generate clinical quality metrics, which range from general counseling to fidelity or evidence-based counseling. AI technology enables therapists to access family history, client behavior, and their response to previous treatment. This information allows therapists to make more accurate diagnoses, leading to more insightful and effective treatment decisions and frees time to accept new patients.

After the end of the COVID-19 pandemic, the healthcare sector has been finding modern ways to fulfill the increasing demand for healthcare professionals for people to adopt quickly and safely. The government should be interested in aiding new policies and providing funds to mental health organizations to overcome the limitation of people's affordability. Programs, such as Enhanced Primary Care (EPC), cover medical allowance for up to 5 therapy sessions with a vast range of allied health therapists. This program so far covers only chronic health issues but is a fundamental start. With government involvement and aid, programs like these can extend their range to cover more patients.

■ Conclusion

Our study concluded that the most dominant barrier to healthcare professionals' access is the lack of accessibility that people have when searching for therapists. People searching for therapists must contact many therapists to get a response, then decide whether or not that therapist can accommodate their needs. This study emphasizes the need to address the current therapist shortage issue in the United States. More efforts and resources should be allocated to provide greater therapist access and thus aid the mental health of millions of patients.

■ References

- Shen, K.; Yang, Y.; Wang, T.; Zhao, D.; Jiang, Y.; Jin, R.; Zheng, Y.; Xu, B.; Xie, Z.; Lin, L., Diagnosis, treatment, and prevention of 2019 novel coronavirus infection in children: experts' consensus statement (2020). *World journal of pediatrics*, 16 (3), 223-231.
- Jerant, A.; Fenton, J. J.; Franks, P., Primary care attributes and mortality: a national person-level study (2012). *The Annals of Family Medicine*, 10 (1), 34-41.
- Corscadden, L.; Callander, E. J.; Topp, S. M., International comparisons of disparities in access to care for people with mental health conditions (2018). *The International journal of health planning and management*, 33 (4), 967-995.
- Alborz, A.; McNally, R.; Glendinning, C., Access to health care for people with learning disabilities in the UK: mapping the issues and reviewing the evidence (2005). *Journal of health services research & policy*, 10 (3), 173-182.
- Coombs, N. C.; Meriwether, W. E.; Caringi, J.; Newcomer, S. R., Barriers to healthcare access among US adults with mental health challenges: A population-based study (2021). *SSM-Population Health*, 15, 100847.
- Lee, J., Mental health effects of school closures during COVID-19 (2020). *The Lancet Child & Adolescent Health*, 4 (6), 421.
- <https://www.psychologytoday.com/us/therapists/ma/cambridge/west-cambridge>.
- Moss, S.; Patel, P., The prevalence of mental illness in people with intellectual disability over 50 years of age, and the diagnostic importance of information from carers (1993). *The Irish journal of psychology*, 14 (1), 110-129.
- Howells, G., Are the medical needs of mentally handicapped adults being met? (1986). *The Journal of the Royal College of General Practitioners* 1986, 36 (291), 449-453.
- Thomas, C. R.; HOLZER III, C. E., The continuing shortage of child and adolescent psychiatrists (2006). *Journal of the American Academy of Child & Adolescent Psychiatry*, 45 (9), 1023-1031.
- Freeney, M.; Cook, R.; Hale, B.; Duckworth, S., *Working in partnership to implement Section 21 of the Disability Discrimination Act 1995 across the National Health Service*. NHSE : 1999.
- Cunningham, P. J., Beyond Parity: Primary Care Physicians' Perspectives On Access To Mental Health Care: More PCPs have trouble obtaining mental health services for their patients than have problems getting other specialty services (2009). *Health Affairs*, 28 (Suppl1), w490-w501.
- Thomas, K. C.; Ellis, A. R.; Konrad, T. R.; Holzer, C. E.; Morrissey, J. P., County-level estimates of mental health professional shortage in the United States (2009). *Psychiatric services*, 60 (10), 1323-1328.
- Butryn, T.; Bryant, L.; Marchionni, C.; Sholevar, F., The shortage of psychiatrists and other mental health providers: causes, current state, and potential solutions (2017). *International Journal of Academic Medicine*, 3 (1), 5.
- Hung, P.; Busch, S. H.; Shih, Y. W.; McGregor, A. J., & Wang, S. (2020). Changes in community mental health services availability and suicide mortality in the US: a retrospective study. *BMC Psychiatry*, 20(1), 1-12.
- Koonin, L. M., Hoots, B., Tsang, C. A., Leroy, Z., Farris, K., Jolly, B., ... & Harris, A. M. (2020). Trends in the use of telehealth during the emergence of the COVID-19 pandemic—United States, January–March 2020. *Morbidity and Mortality Weekly Report*, 69(43), 1595.
- Bzdok, D., & Meyer-Lindenberg, A. (2018). Machine learning for precision psychiatry: opportunities and challenges. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 3(3), 223-230.

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