



ELEMENTAL

*The Official Mental Health Magazine of the
University of Toronto*

SUMMER 2021

SPOTLIGHTS

#UOFTMEDCARES
ALLYSHIP CAMPAIGN
THE TOGETHER PROJECT
THE MENTAL HEALTH
CRISIS IN ACADEMIA

SOCIAL DETERMINANTS OF MENTAL HEALTH

EQUITY & INCOME INEQUALITY
LOCKDOWNS AND YOUTH
MENTAL HEALTH
FOOD INSECURITY IN POST-
SECONDARY STUDENTS

elementalmag.ca

15 July 2021

Summer 2021, Issue No. 8

SUMMER 2021

ISSUE 8

Letter From the Editor	4
Together Project: Building Community Connection with Refugee Newcomers	5-7
Mental Health in Low-Income Post-Secondary Students	8-10
The Power of Play	11-13
Mental Health Implications of COVID-19 for Children with Special Needs and their Families	14-15
Addressing Microaggressions and Taking Action: An Interview with Shannon Giannitsopoulou	16-19
Food Insecurity, Mental Health, and Post-Secondary Students	20-22
Maternal Mental Health In Cambodia	23-27

Elucidating the Mental Health Crisis in Academia	28-29
Income Inequality and Mental Health	30-33
The Link Between Equity and Mental Health	34-35
The Protective Factors of Mental Health Among Ethnic Minorities During COVID-19	36-37
The Impact of COVID-19 on the Mental Health of Individuals with ADHD	38-41
South Asian Canadian Help-Seeking Behaviours and Barriers to Mental Health Services	42-44
Neuroplasticity and Mental Wellbeing: Using the Adaptive Quality of Mind to Create an Upward Spiral	45-47
Acknowledgements	48

LETTER FROM THE EDITOR

I am pleased to present the eighth issue of *Elemental Magazine*, the University of Toronto's official tri-campus mental health magazine. The theme for this issue is Social Determinants of Mental Health. Mental illnesses like depression and anxiety are among the most prevalent and debilitating health conditions among Canadians. Although these conditions have a biological and genetic component, they are also influenced by environmental conditions such as housing instability, food insecurity, unemployment, poor access to and quality of health care, educational inequality, income inequality, poor neighborhoods, social exclusion and discrimination, and disability status.¹ In fact, the latest research in epigenetics suggests that genes do not create illness; it is the environment that signals the gene that begins to create illness.² Medical science is becoming aware of the importance of the interplay between biology and the environment.

Addressing the social determinants of mental health requires a different approach from typical clinical interventions. One-on-one interventions could be employed, however, they yield less overall population impact and therefore, they may not be sustainable with the increasing prevalence of mental illness across Canada. The best way to address the social determinants of mental health is through action at the policy level. Countries that assign high policy priority to social determinants of health (e.g., Norway and Switzerland) have improved health outcomes over time.³ These countries have policy plans to



make sure that children have the best opportunities for emotional health from the beginning of their lives, that adults have fair employment, and that all individuals live in safe and healthy communities.³ Since policy changes, however, can take several years, at this time, it is important to educate people on how environmental and societal factors affect mental health.

The purpose of this issue is to educate readers on the social determinants of mental health as it relates to mental illness prevention and mental health promotion. We feature student viewpoints on how mental health can be affected by income inequality, equity, food insecurity, cost of education, cultural barriers to healthcare, learning disabilities, and lockdowns. Shannon Giannitsopoulou, Inclusion & Diversity Coordinator at UofT, discusses the creation of the UofT Faculty of Medicine, Office of Inclusion and Diversity's Microaggressions and Allyship Campaign, #UofTMedCARES. Anna Hill and Andrew Lustzyk, co-founders of The Together Project, share how they are building community connections among refugee newcomers. We also share a research article by ADRA Canada

that highlights important findings concerning maternal mental health in Cambodia. Finally, we include two articles with coping mechanisms that we have not touched upon: "The Power of Play" and "Neuroplasticity and Mental Wellbeing: Using the Adaptive Quality of Mind to Create an Upward Spiral."

I would like to thank our journalists, editors, and others who sent in their articles for publication. I was not even sure if this issue was going to be possible back in March, but somehow, we pulled it off! It has been a difficult year for everyone, which is why I am proud of everyone on the *Elemental* team and am truly appreciative of their hard work. I would like to give a shout-out to the Executive Editors, Curtis D'Hollander and Emily Mastragostino, for their tremendous contributions. Most important, a huge thank you to our readers for your support! I hope you enjoy reading these articles as much as I did.

Sincerely,
Jeffrey Lynham
Editor-in-Chief, Elemental Magazine
Co-Chair, Grad Minds

References

1. Mikkonen, J. and Raphael, D. Social Determinants of Health: The Canadian Facts. (2010).
2. Tammen, S. A., et al. Epigenetics: The Link Between Nature and Nurture. *Molecular Aspects of Medicine* 34(4): 753-764 (2013).
3. UCL Institute of Health Equity. Review of Social Determinants and the Health Divide in the WHO European Region: Final Report. World Health Organization Regional Office for Europe (2014).



TOGETHER PROJECT: BUILDING COMMUNITY CONNECTIONS WITH REFUGEE NEWCOMERS

AN INTERVIEW WITH ANNA HILL & ANDREW LUSTZYK

PALAK DESAI

Refugees resettling in Canada have the daunting challenge of navigating a new country. Part of this challenge is forming connections within the community; a task made more difficult during the pandemic. The Together Project, an initiative of the charitable foundation MakeWay, aims to empower refugees during their transition. It includes programs such as the Welcome Group model, which connects government assisted refugees and refugee claimants with volunteers in hopes of forming a more welcoming and integrated community.

The Together Project was founded in 2016, and since then has expanded to 700 volunteers, which have been matched with 650 newcomers.¹ Anna Hill and Andrew Lustzyk, the co-

founders, share their thoughts and experiences in the following interview.

What are the aims of Together Project?

Andrew: The aim is to build self-sufficiency through providing social connections to newcomers. One of the biggest gaps that exist institutionally for a lot of refugee and refugee claimant newcomers, is that in being new to Canada, they do not have the access to the same social connections that other forms of newcomers might. The aim is to provide social connections in a way that empowers them to build their own self-sufficiency. The idea is not to create a charity group, but a surrogate group of allies and advocates that can help newcomers navigate their arrival to Canada.

What challenges do you see refugee newcomers facing?

Andrew: It varies for individual families, circumstances of their arrival, and settlement to Canada. One of the top challenges we see is lack of social capital and connections. There are some observations we can make more specific to broader demographic groups. For example, for refugee claimants, understanding and accessing services can be a huge challenge, given the comparatively limited institutional support compared to other groups of newcomers. Government assisted refugees typically arrive with higher vulnerability and lower levels of English. You can also imagine that building social connections, finding work, and even feeling safe or

comfortable in your new home can be affected by a language barrier.

How has the refugee settlement process changed during the pandemic?

Andrew: As with a lot of other Canadians, one of the biggest challenges is understanding what it means for services. During the pandemic the Service Ontario offices have closed. This caused an additional challenge because now newcomers may be wondering, “how do I access information that is important for me and my family about my financial or healthcare situation?” Therefore, having a team of people who look at and assist the refugees’ specific needs has been proven to be effective and helpful.

Another challenge is social isolation. You are even more restricted by having to stay indoors. Thus, having a window to meet new people, even virtually, has meant a lot.

Anna: The whole sector has been changing to new models of digital settlement during the pandemic and so there is this period of adaptation. Making sure that newcomers have the technology and the digital literacy to access resources and programs that are being piloted for the first time, is important. I think that is another way that volunteers have been very helpful, in supporting the inclusion of newcomers digitally.

How do you feel the community in general can better support refugee newcomers?

Andrew: When we talk about a welcoming community, we talk about integration being a two-way street. While we try to cater programming and services to newcomers, we should also look at ways to actively engage members of their community. We often hear from volunteers that they have not previously had the opportunity to engage with newcomers in a meaningful, long-term way. We are providing an avenue for people to actively participate as opposed to relying on institutions and governments to do the work of integration or waiting for newcomers to integrate themselves.

Anna: I think providing a dedicated group of volunteers who can act as allies, guides, and eventually friends, is important in terms of mitigating social isolation. It is imperative to center newcomer voices in leadership, in program design, and in communications right now. I think newcomers are bringing incredible skills, resilience, strength, and insight. In terms of evolving this concept of digital settlement, it is critical that newcomers are at the center of these innovations. Often our best insights are coming from the newcomers we are serving.

What changes and challenges has the program faced this past year?

Andrew: Our program was designed around building social connections, largely in-person, and suddenly had to shift to an entirely digital format. We really had to work to adapt the model to still be effective online. We started with a need’s assessment for our newcomer program participants and volunteers to determine how the needs have changed. Luckily, we have an iterative model in our program



Illustration by Emilie Muszcak

delivery so that every match is informed by the match that preceded it.

The fundamental truth is that when you are talking about building social connections, nothing is going to replace in-person interactions. That is one of highest and best forms of building social connections, in terms of overcoming language barriers and benefiting from regular, in-person proximity to build trust. Due to the infinite patience of our volunteers and newcomer participants, we had a lot of success with the adaptation. We also recognize that there are limitations to how much you can rely on online communication for building those social connections. You cannot go to the library to show newcomers how to get a library card,

play sports in a park, or have shared meals which was the foundation for so many of our matches prior to the pandemic. There is a more limited range of opportunities to engage in, but we have learned from that and shifted to what works best online.

Anna: We have essentially been in the midst of a remote social support pilot program over the last year. Creating good feedback loops between our program participants has been important in order to share new successes and challenges. This open communication has been very important as it has allowed us to share resources while the sector has been in flux. Engaging with previous matches that have gone or are going well allows us to continue to improve the program for future matches.

In what ways have you seen welcome groups connecting?

Anna: Both our newcomers and volunteers in our matches have shown so much creativity and ingenuity in terms of how to build social connections online. We have a number of matches that connect every week. They typically will connect either by phone or a video platform. Almost all matches also provide on-demand support, typically through text. I am supervising matches where people are cooking together, training towards running a 5k, and starting a book club. We have volunteers who are engaged in reading stories to the children in the families, and there is a lot of innovative language practice. As well, we have a lot of matches focused on employment.

Andrew: We are learning a lot more from volunteers and newcomers than we are imparting in this field. But one thing that is important is the consistency - the idea that there is someone who is regularly checking in on you, especially if you are isolated. It is meaningful for a lot of newcomers, knowing that "if I have an issue, there is someone who I can talk to."

Edited by Elizabeth Karvasarki & Emily Mastragostino

For more information about The Together Project, visit: www.togetherproject.ca

Reference

1. Impact [Internet]. Together Project. [cited 2021 Mar]. Available from: <https://togetherproject.ca/impact/>



Image Source: [@together_hello](#)

MENTAL HEALTH IN LOW-INCOME POST-SECONDARY STUDENTS

CLAIRE HALLETT

Education is one of the biggest investments a person makes in their lifetime. During the 2019-2020 school year, the average cost of tuition for a domestic Canadian student was \$6463.¹ This figure does not include the cost of housing, transportation, food, textbooks, or other necessities. For students with low income, the price of going to school represents a significant stressor and can negatively impact their mental health.

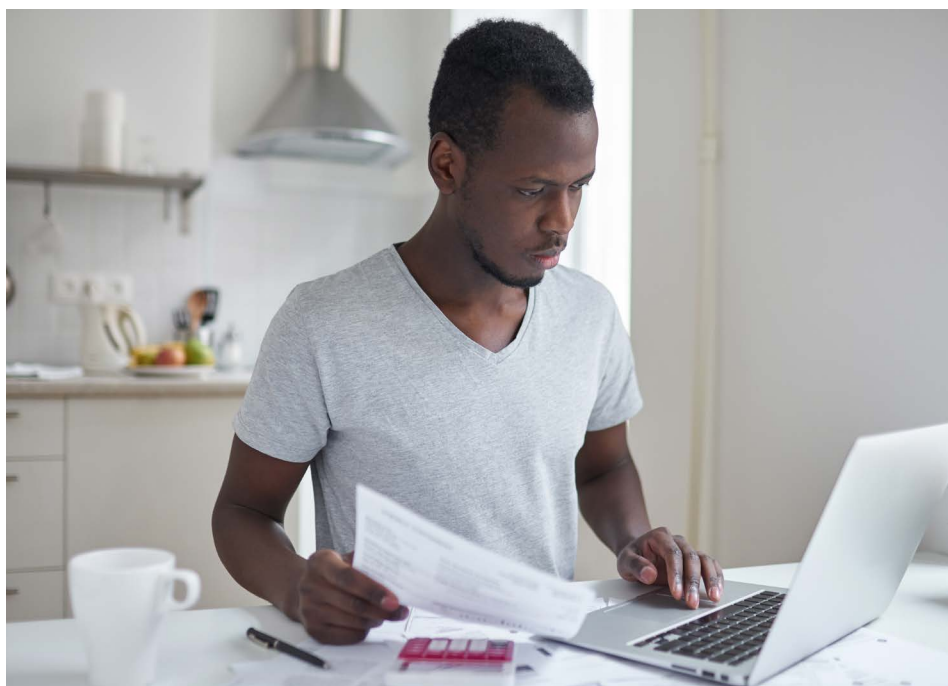
According to social stress theory, low-income individuals are more likely to be exposed to stressful circumstances. This, in turn, can contribute to mental health concerns.² Unfortunately, low-income individuals are less likely to have access to mental health resources even though they have greater need for them. This can manifest in numerous ways in the context of postsecondary education.

First and foremost, the cost of attending school can, in itself, cause a great deal of distress. In a study conducted at York University, Othman, Ahmad, El Morr, and Ritvo found that tuition fees were among the greatest sources of stress for students.³ They also determined that students with anxiety were 2.59 times more likely to have experienced financial hardship than students without anxiety. Furthermore, a U.S. study of low-income student experiences found that stress can be compounded by guilt about posing a financial burden to one's family.⁴

Low-income status can also affect student wellbeing through its impacts on academic performance. For example, low-income students may need to work in order to support their studies. Time spent at work can take away from time spent studying or completing assignments. This can

have a negative effect on academic performance. CNBC reports that 59 percent of low-income students who work 15 hours or more per week have an overall average of C or lower.⁵ As well, low-income students are less likely to have access to supplementary resources to improve their performance. Private tutoring is one such supplementary resource that can become quite expensive. The average price of private tutoring in Toronto is \$25 per hour according to superprof.ca.⁶ In addition, preparatory courses to help students achieve admission to postgraduate programs can be massively expensive. The most popular Medical College Admissions Test (MCAT) preparatory course offered by The Princeton Review costs \$2799 CAD.⁷ When it comes to supplements to education, low-income students are at a relative disadvantage compared to their peers, which may lead to poorer academic performance. Research has linked low grades and rejections from postgraduate programs to decreases in self-esteem and perceived academic competence.^{8,9} Therefore, low-income students may be more vulnerable to decreases in self-worth related to poor academic performance.

Students with low income also have less access to resources to improve and maintain their mental health. Therapy and other formal mental health care can come at a significant cost. For example, in 2013, the Ontario Psychological Association recommended that psychologists in private practice charge \$225 per hour.¹⁰ Fortunately, many Ontario universities offer therapy that is covered by student health insurance. However, it typically involves long wait lists, a limited number of sessions, and narrow options for treatment.¹¹ Low-income students may also face barriers in creating and





accessing informal social supports. Avenues for meeting new people and making friends can sometimes come at a cost. For example, school clubs or fraternities may require membership fees or dues. In addition, it may be difficult to socialize when this is often done in places like restaurants, movie theaters, and bars. Lower access to both formal and informal support systems places low-income students at greater risk for depression, anxiety, and suicidal ideation.^{12,13,14}

Critically, individuals with low income are more likely to belong to minority groups that place them at an even greater risk of mental health concerns. In the 2016 Canadian census, 20.8% of racialized individuals were classified as having low income as compared to 12.2% of non-racialized individuals.¹⁵ Unfortunately, there is little research on the mental health needs of racialized, low-income individuals in Canada.¹⁶ However, in the United States, the office of the surgeon general found that racialized and low-income individuals were less likely to have access to affordable mental healthcare and, when they did receive it, the care was of poorer quality.¹⁷ Furthermore, a study of the effects of race and

socioeconomic status on the mental health of American youth found that Black and Hispanic individuals had higher levels of depression compared to Whites. This difference was attributed to a greater likelihood of Blacks and Hispanics having a low income. Based on the existing research, it is likely that minority students with low-income face greater stress and less care compared to their peers. However, more research is needed on the intersection between socioeconomic status and minority identities, particularly in a Canadian context.

There are several actions that postsecondary institutions might take to increase equity between students of different socioeconomic statuses. For one, universities should offer greater flexibility in deadlines and grading. Due to circumstances beyond their control, students with low income may have fewer resources to prepare for assessments in the allotted time. By adopting a more understanding attitude toward students' circumstances, colleges and universities would better allow students to achieve their potential. In addition, postsecondary institutions

should consider expanding and diversifying the mental healthcare that is covered by student health insurance. This might include lowering the cost of care, offering a wider range of services, and providing training to school counselors about sensitivity to individuals with low income and other identities that expose them to greater stress.¹⁸ Lastly, postsecondary institutions should provide platforms for their low-income students, hear their concerns and suggestions, and, most importantly, act on them.

Edited by Stacey Butler & Emily Mastragostino

References

1. Stats Canada. (2019). Tuition fees for degree programs, 2019/2020. <https://www150.statcan.gc.ca/n1/daily-quotidien/190904/dq190904b-eng.htm>
2. Schwartz, S., & Meyer, I. H. (2010). Mental health disparities research: The impact of within and between group analyses on tests of social stress hypotheses. *Social science & medicine*, 70(8), 1111-1118.



3. Othman N, Ahmad F, El Morr C, Ritvo P (2019). Perceived impact of contextual determinants on depression, anxiety and stress: a survey with university students. *Int J Ment Health Syst.* Mar 26;13:17.
4. Hyun, H. (2018). The Impact of Low Socioeconomic Status on the Mental Health and Self-Efficacy of College Students. *The Proceedings of GREAT Day*, 64, 74.
5. Carnevale, A.P. (2019, October 24). Working while in college may hurt students more than it helps. *CNBC*. <https://www.cnbc.com/2019/10/24/working-in-college-can-hurt-low-income-students-more-than-help.html>
6. Super Prof. (2020, November 29). What Tutoring Rate Should I Charge? <https://www.superprof.ca/blog/fair-cost-tutors/>
7. The Princeton Review. (2021). MCAT 510+ Course. <https://www.princetonreview.com/medical/mcat-guarantee?ceid=rc-bottom-cards-o>
8. Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of personality and social psychology*, 85(3), 507.
9. Crocker, J., Sommers, S. R., & Luhtanen, R. K. (2002). Hopes dashed and dreams fulfilled: Contingencies of self-worth and admissions to graduate school. *Personality and Social Psychology Bulletin*, 28, 1275–1286.
10. Ontario Psychological Association. (2013). What to expect when seeing a psychological professional. <https://www.psych.on.ca/About-Psychology/Getting-help/What-to-expect-when-seeing-a-psychological-profess>
11. Nunes, M., Syed, T., De Jong, M., Provencher, M. D., Ferrari, J., Walker, J. R., . . . Furer, P. (2014). A national survey of student extended health insurance programs in postsecondary institutions in Canada: Limited support for students with mental health problems. *Canadian Psychology*, 55(2), 101-109.
12. Lorant, V., Delière, D., Eaton, W., Robert, A., Philippot, P., & Anseau, M. (2003). Socioeconomic inequalities in depression: a meta-analysis. *American journal of epidemiology*, 157(2), 98-112.
13. Rankin, J. A., Paisley, C. A., Mulla, M. M., & Tomeny, T. S. (2018). Unmet social support needs among college students: Relations between social support discrepancy and depressive and anxiety symptoms. *Journal of Counseling Psychology*, 65(4), 474–489.
14. Arria, A. M., O'Grady, K. E., Caldeira, K. M., Vincent, K. B., Wilcox, H. C., & Wish, E. D. (2009). Suicide ideation among college students: A multivariate analysis. *Archives of suicide research*, 13(3), 230-246.
15. Block, S., Galabuzi-Grace, E., & Tranjan, R. (2019). Canada's colour coded income inequality. *Canadian Centre for Policy Alternatives*.
16. Chiu, M. (2017). Ethnic differences in mental health and race-based data collection. *ICES report. Healthcare Quarterly*, 20(3), 6-9.
17. Satcher, D. (2001). Mental health: Culture, race, and ethnicity—A supplement to mental health: A report of the surgeon general. *US Department of Health and Human Services*.
18. Hensley, L. (2019, October 9). 'One size doesn't fit all': Canadian campuses desperately need better mental health services. *Global News*. <https://globalnews.ca/news/5969461/mental-health-canadian-campus/>

THE POWER OF PLAY

JEFFREY LYNHAM

Has anyone ever told you to stop playing around and start acting like an adult? In our society, there is a widespread belief that children play and that adults work. But if fun and play disappear as we age, then life goes from an exciting adventure to a monotonous daily routine. It would mean that the day we are born is the best life will ever be and that it is all downhill from there. Must it be this way?

It is difficult to define play. It does not have a particular purpose. If the purpose of an action is more important than the act of doing it, then it is probably not play.¹ In other words, play is a pleasurable activity undertaken for no apparent purpose. Some forms of play involve games or sports, while others involve skill-building. When you are truly

engaged in play, you would never even know it because you are too focused on the fun you are having. The best way to understand play is to feel it. Think of a time when you were playing with a baby or playing fetch with a dog. That is the emotional sense we all have when we are truly engaged in play. Play is an optimal way for us, especially children, to learn new skills, it brings people together through sports and sporting events, and it is a vital component for loving relationships. Just imagine being in a relationship with absolutely no play. Plato once said, "You can discover more about a

person in an hour of play than a year of conversation."²

From an evolutionary standpoint, play is essential. Every animal species plays in one way or another.¹ Japanese macaque monkeys make snowballs and roll them down hills, bison will repeatedly run onto frozen lakes and skate on all fours, and hippos in the water do backflips over and over again. Anything that's done across many species must have an evolutionary benefit. Nature does not waste energy or resources on traits that are unnecessary for survival.

So how has play been advantageous for the survival and evolution of humans? It turns out that play might be the antidote for stress. The six leading causes of death are linked to stress.³ Dr. Hans Selye, who first popularized the term stress in the 1950's, wrote, "An overwhelming stress (caused by prolonged starvation, worry, fatigue, or cold) can break down the body's protective mechanism. It is for this reason that so many maladies tend to become rampant during wars and famines. If a microbe is in or around us all the



time and yet causes no disease until we are exposed to a stress, what is the cause of our illness, the microbe or the stress? I think both are – and equally so.”⁴

Dr. Selye’s explanation of stress indicates that we are more susceptible to disease when we are stressed. Unfortunately, in our society, being stressed has become a metaphor for existence. Sometimes we have so many things to do that we don’t even know where to begin. We are no longer human beings, but human doings. When life becomes one giant to do list, there’s no time for play, and our emotional health suffers. Brian Sutton-Smith, a pioneer in play research, says, “the opposite of play is not work – it’s depression.”⁵

Most people would agree that play, as a form of exercise, is beneficial for our physical and mental health. In *Play: How it Shapes the Brain, Opens the Imagination, and Invigorates the*

Soul, Stuart Brown, MD, gives a disturbing overview of the lifespan of a sea squirt.¹ The sea squirt starts its life as a tadpole. It cruises around the ocean, explores, finds nutrients, and is active—perhaps plays. Then it grows, matures, latches onto a reef, and it quits moving. Its life becomes purely passive; it becomes the couch potato of the sea. Since it is no longer actively engaged in life, it no longer needs a brain. Near the end of its life, it starts to eat its own brain! Humans are the same. As we age, our brain slowly degenerates, but when we stop moving, it degenerates at an accelerated rate. The basic principle here is “use it or lose it!”

The tale of the sea squirt also illustrates what happens when we are stuck in the same unchanging environment, not taking in any new information. In 1966, Dr. Marian Diamond studied two groups of mice.⁶ One group was placed in an enriched environment with lots of

toys, levels, and unique spaces to play around in. The other group was placed in an open box with nothing to play with. She found that the mice in the enriched environment had increased glial cell activation, which means new brain cells were being generated. They also scored better on cognitive performance tests.

Animals and children learn many of their motor and social skills through play. Many studies show that child development thrives on play.⁷ In fact, play and guided play offers strong support for academic and social learning. Comparisons of preschools that use playful child-centered approaches, versus less playful more teacher-directed approaches, reveal that children in the child-centered approaches do better in reading, language, writing, and mathematics. The science is in, play is essential for life. Plato knew this when he said, “Our children from their earliest years, must take





part in all the more lawful forms of play, for if they are not surrounded with such an atmosphere, they can never grow up to be well conducted and virtuous citizens.”⁸

A common side effect of play is laughter. Whoever said, “laughter is the best medicine,” got it absolutely right. Laughter strengthens the immune system, boosts mood, diminishes pain, and protects you from the damaging effects of stress.⁹ In *Anatomy of an Illness as Perceived by the Patient*, Norman Cousins accounts how he overcame a degenerative collagen disease using, among other things, self-prescribed laughter therapy.¹⁰ Cousin’s writings show that cultivating strong positive emotional states through humor and not taking yourself so seriously have a major therapeutic benefit in the healing process.

Although play is essential for our development and health, we have an ambivalence toward it. As we age, it seems more difficult to introduce play, especially when we are caught up in the things we need to do, the places we need to go, and the people

we need to see. So how can we change that? It takes discipline. It’s not going to be handed to us. Making time to engage in play is something we work on. Like any skill, the best way to work on play is to start off small; no need to join a competitive water polo league, at least not yet. It could be as simple as belting out your favourite song in the shower as if no one were listening or digging out the old baseball glove and playing catch with a friend.

The paradox of play is that it recharges us, it refreshes us, and it rejuvenates us. When we go back to work, we do it even better. What we thought would take four hours only took 45 minutes. When we don’t make time for play, we get stressed, sick, and burned out. Moreover, we become too serious, and life seems joyless. Humans, like all species, need play. It is not a childish activity. It is essential to our health and wellbeing. To conclude, I will share another Plato quote. He said, “Life must be lived as play.”²

Edited by Emma Syron & Emily Mastragostino

References

1. Brown, S.L. Play : how it shapes the brain, opens the imagination, and invigorates the soul, (Avery, New York, 2010).
2. Plato. Symposium: “Life must be lived as play”, (Scribe Publishing, 2017).
3. Hartz-Seely, D.S. Chronic stress is linked to the six leading causes of death. (Miami Herald, 2014).
4. Selye, H. The general adaptation syndrome and the diseases of adaptation. J Clin Endocrinol Metab 6, 117-230 (1946).
5. Sutton-Smith, B. The ambiguity of play, (Harvard University Press, Cambridge, 2009).
6. Diamond, M.C., et al. Increases in cortical depth and glia numbers in rats subjected to enriched environment. J Comp Neurol 128, 117-126 (1966).
7. Smith, P.K. & Pellegrini, A. Learning through play. (Encyclopedia of Early Childhood Development, 2013).
8. Plato. The Republic, (Penguin Classics, 2014).
9. Robinson, L., et al. Laughter is the best medicine. (HelpGuide, 2020).
10. Cousins, N. Anatomy of an illness as perceived by the patient: reflections on healing and regeneration, (Bantam Books, Toronto, 1981).

MENTAL HEALTH IMPLICATIONS OF COVID-19 FOR CHILDREN WITH SPECIAL NEEDS AND THEIR FAMILIES

AGNES WONG

COVID-19 has changed our lives considerably. It has prevented most children around the world from accessing face-to-face education at school. Children with special needs could be particularly affected, as most rehabilitation training programs have been interrupted. This may negatively influence the progress of training or even lead to regression in some cases.¹

According to a recent study conducted in the United Kingdom, both parents and their children with special needs reported deterioration in mental health due to COVID-19. They have experienced loss, worry, and changes in mood and behaviour.² Children have experienced loss of daily routine while parents struggle to manage without their usual support networks. Children may not understand and worry about the situation, while parents worry about their child's training progress. Some children may engage in disruptive behaviours at home while parents feel helpless to handle the situation.²

Although COVID-19 has created difficulties for most people, families with children who have special needs are particularly vulnerable. Autism Spectrum Disorder is a neurodevelopmental disorder associated with persistent social communication challenges, restricted and repetitive behaviours and interests, and hypersensitivity or hyposensitivity to sensory input.³ During COVID-19, some autistic children may experience anxiety due to disruption of daily routines and high levels of discomfort while wearing masks due to tactile hypersensitivity. In addition, sleep problems have disproportionately affected autistic children.⁴ A study conducted in Turkey found that autistic children exhibited significantly more sleep problems and autistic symptoms when they were forced into home confinement due to COVID-19 than during the normal non-home confinement state.⁵ The mental health of families with children who have special needs requires our attention. For a small proportion of families—

particularly those with children who have a hard time at school—social distancing and quarantine during COVID-19 may be providing a time of respite.² The impact of COVID-19 on mental health for these families can be minimal or even lead to improvement in some cases.

Some therapists and teachers now offer online rehabilitation training and phone consultation. A study conducted in India found that caregivers of children with special needs who did not use tele-rehabilitation or who perceived homecare therapy as difficult, held negative perceptions about tele-rehabilitation and were at greater risk for poor mental health.⁶ More education on the importance of home training—including encouraging families to attend rehabilitation in a different format and setting appropriate tasks for home training—may help these families.^{2,6} However, it is undeniable that certain children may be less suitable to participate in training using online formats.

Are there any recommendations for improving mental health for families who have children with special needs? If you are a parent tending a child with special needs, one of the most important suggestions is to take good care of yourself first. It is common for parents to put all their focus on the needs of children and the family—for instance, home training for children and ensuring everything at home is sterilized during the pandemic. However, parents' own mental health may be overlooked.



Other suggestions for parents include considering your child's behaviour as a form of communication, taking time to notice your own feelings, pausing before responding to your child, making time to relax (e.g., meditation, yoga, long baths), staying in touch with your social network, and reaching out to a healthcare professional if your mental health becomes a concern.⁷ Since blue light suppresses the production of melatonin, using electronic devices in the evening will likely affect sleep quality.⁸ Parents may try to limit screen time—for themselves and their children—for better sleep quality and better mental health overall. When arranging activities for your child, try to maintain a routine while including a mix of different activities. Some examples include free play, art activities, story time, and physical activities.⁹

For parents of children with special needs, it is important to remember that self-care is not selfish. Instead, it helps to ensure that we are physically and emotionally capable to care for our children.⁷

Edited by Isayah Alman & Curtis D' Hollander

References

1. Chen SQ, Chen SD, Li XK, Ren J. Mental health of parents of special needs children in China during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*. 2020 Jan;17(24):9519.
2. Asbury K, Fox L, Deniz E, Code A, Toseeb U. How is COVID-19 affecting the mental health of children with special educational needs and disabilities and their families?. *Journal of Autism and Developmental Disorders*. 2020 Jul 31:1-9.



3. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Pub; 2013 May 22.
4. Sivertsen B, Posserud MB, Gillberg C, Lundervold AJ, Hysing M. Sleep problems in children with autism spectrum problems: a longitudinal population-based study. *Autism*. 2012 Mar;16(2):139-50.
5. Türkoğlu S, Uçar HN, Çetin FH, Güler HA, Tezcan ME. The relationship between chronotype, sleep, and autism symptom severity in children with ASD in COVID-19 home confinement period. *Chronobiology International*. 2020 Aug 2;37(8):1207-13.
6. Dhiman S, Sahu PK, Reed WR, Ganesh GS, Goyal RK, Jain S. Impact of COVID-19 outbreak on mental health and perceived strain among

caregivers tending children with special needs. *Research in Developmental Disabilities*. 2020 Dec 1;107:103790.

7. Zero To Three. 2020, Apr 14. Young Children at Home during the COVID-19 Outbreak: The Importance of Self-Care. Retrieved from: <https://www.zerotothree.org/resources/3262-young-children-at-home-during-the-covid-19-outbreak-the-importance-of-self-care>

8. Fry, A. 2021, Jan 22. How Blue Light Affects Kids' Sleep. Retrieved from: <https://www.sleepfoundation.org/children-and-sleep/how-blue-light-affects-kids-sleep>

9. Imran N, Zeshan M, Pervaiz Z. Mental health considerations for children & adolescents in COVID-19 Pandemic. *Pakistan Journal of Medical Sciences*. 2020 May;36 (COVID-19-S4):S67.

ADDRESSING MICROAGGRESSIONS AND TAKING ACTION

AN INTERVIEW WITH
SHANNON GIANNITSOPOULOU

AMY CHAN

Equity, diversity and inclusion (EDI) and mental health are intricately linked, and various studies have demonstrated its bi-directional relationship. Particularly, microaggressions—subtle, indirection, or unintentional remarks that are discriminatory against members of marginalized groups—are commonly experienced in our environment. One study suggests that being the victim of racial microaggressions may lead to increased signs of depression and thoughts of suicide.¹ Moreover, there is a correlation between experiencing microaggressions and self-reported history of heart attack, depression, and hospitalization.²

Raising awareness and advocating against racial attacks and microaggressions within our workspace, community, and academic setting may significantly benefit our health and the health of others. I spoke with Shannon Giannitsopoulou to discuss the creation of University of Toronto's (UofT) Faculty of Medicine Office of Inclusion and Diversity's Microaggressions and Allyship Campaign ([#UofTMedCARES](#)), and her background and inspiration for this university-wide project.

Can you please give me a brief overview of your background and how you got to where you are today? (academic background, influences etc.)

I did my BA in Philosophy, Gender Studies and English at UofT, focusing on courses that involve feminist theory and continental philosophy. I then pursued a college certificate in Corporate Communications and Public Relations at Centennial College, which provided me with an internship at a feminist anti-gender-based violence legal, counselling and interpretation clinic, where I worked for another five years. I was promoted to a Program Coordinator and had the opportunity to lead anti-oppressive projects across Ontario, reducing barriers that women from marginalized communities face when seeking supports for surviving gender-based violence. Subsequently, I received my Project Management Professional (PMP) certification, and went on to complete my MA in Social Justice Education at OISE. My thesis focused on a critical policy analysis on equity policies of Kinesiology faculties in Canadian universities. I am the first in my family to attend higher education, so I did not always see myself as belonging in academic spaces. Supportive and compassionate faculty members such as Dr. Miglena Todorova have helped me to overcome some of these barriers.

At UofT I have worked as an Assistant Manager at the U of T Faculty of Kinesiology and Physical Education (KPE) in the aquatics department, and as a Program Coordinator at the Faculty of Medicine's Office of Inclusion and Diversity (OID). Currently, I am back at KPE as an Equity Engagement and Student Advisor. I have also been involved in grassroots organizing, and co-founded [Femifesto](#), a collective that works to shift rape culture to consult culture. I would say that my biggest mentors have been feminist, queer, racialized women and trans people who do

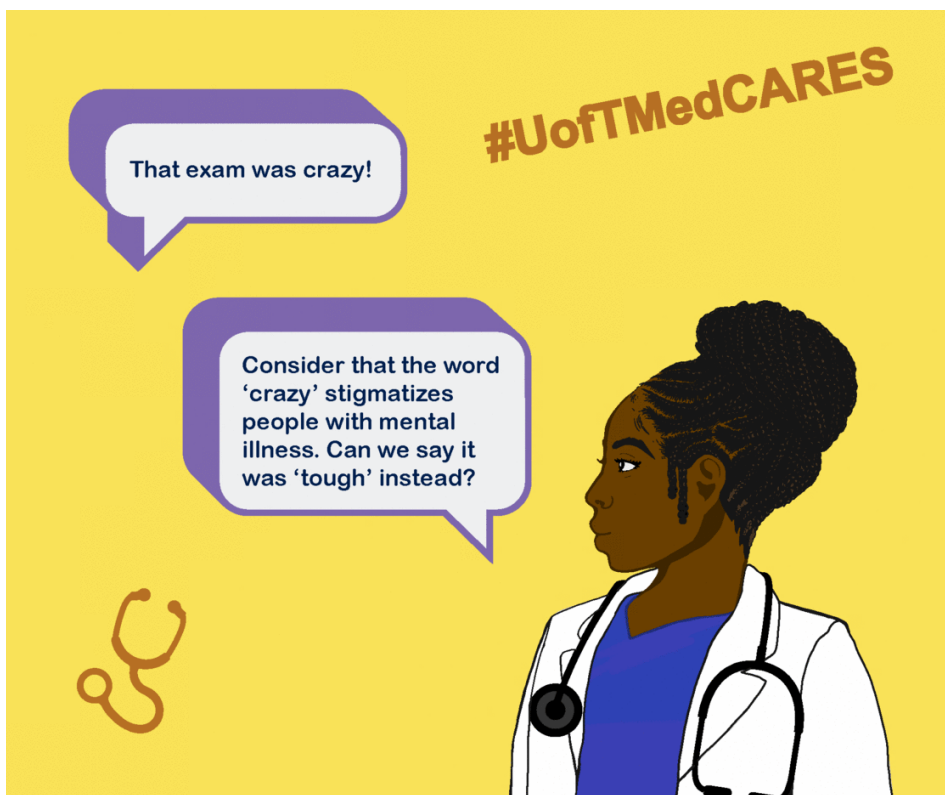


Image Source: medicine.utoronto.ca/microaggressions-and-allyship



life-long anti-oppression work. They have generously shared wise practices and knowledge with me. I also greatly learned from the ways in which they embody their politics through their everyday practices and relationships. I was really influenced by the works of Sara Ahmed, who applies a critical anti-racist lens to equity, diversity and inclusion work at universities.

What are some topics that you are passionate about, or you think need more awareness?

I am passionate about resisting and interrupting “white feminism” – feminism which is not intersectional. As a non-Indigenous settler, a white woman, and a first generation Canadian, I continue to unlearn colonial, patriarchal, racist ideologies. I am committed to working in solidarity with the land back movement and abolition movement. I am currently a member

of the Solidarity with Land and Water Defenders collective (formerly known as the [Social Justice Education Solidarity with Wet’su’wet’en collective](#)), which was formed out of OISE. I urge all non-Indigenous Canadians to learn about and act in solidarity with Indigenous land and water defenders. State-sanctioned colonial violence, displacement of Indigenous People from their unceded lands, and environmental destruction continues to occur today. One place to start out is with the [Wet’su’wet’en Supporter Toolkit](#) 2020, and the Open Statement of [Solidarity with the Wet’su’wet’en Land Defenders](#) from the University of Toronto Faculty of Medicine Learners.

What is the Microaggressions campaign about, and how did it start?

As a Program Coordinator at the OID, I often heard stories from learners, staff and faculty members about

microaggressions that they commonly face. For example, Black students, who are medical learners shared that patients and even colleagues often assumed that because they are Black, they could not possibly be medical learners, and instead referred to them as volunteers or caretaking staff. I also identified that microaggressions are pervasive when reviewing data from the Voice of The... (VOT) Surveys which were completed by many stakeholders across the Faculty of Medicine. I created the U of T Faculty of Medicine Office of Inclusion and Diversity’s Microaggressions and Allyship Campaign ([#UofTMedCARES](#)) to increase the awareness of microaggressions and their impact, begin discussions around microaggressions and allyship, and to encourage individuals to use their privilege(s) to be allies to others. The campaign includes posters, post cards and social media images.

When a microaggression happens, be an ally that C.A.R.E.S.



CONSIDER

how what one said was harmful



Be ACCOUNTABLE

for your actions and willing to apologize



RETHINK

harmful assumptions or stereotypes



EMPATHIZE

with those on the receiving end of microaggressions



SUPPORT

by offering resources and asking how you can help



UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

Office of Inclusion
and Diversity

Image Source: medicine.utoronto.ca/microaggressions-and-allyship

When I did an environmental scan, I found that many images and campaigns about microaggressions mainly focus on the harmful impact that microaggressions have on marginalized communities. One powerful message that I learned from Una Lee, a design justice advocate, is that we need to create images of the world we want to see. In that sense, social justice work must involve the practice of imagining new transformative worlds and ways of relating to one another. The CARES Microaggressions and Allyship campaign therefore aims to create imagery of and roadmaps to the kind of spaces we want to create in health services, research and education—where a supportive community intervenes when a microaggression occurs. It provides examples of ally responses to microaggressions, based on the CARES acronym:

C: Ask that the person who enacted the microaggression to Consider the harm that it caused.

A: Take Accountability if you yourself enact a microaggression by apologizing and changing your behaviour.

R: Invite the person who enacted the microaggression to Rethink the harmful ideology or stereotype underlying their statement or action.

E: Empathize with the person who received the microaggression.

S: Support the person who received the microaggression by offering resources and asking how you can help.

The CARES model aims to be trauma-informed by including empathizing and supportive responses to those who receive microaggressions, including in the moment, afterwards, or when disclosures happen. It also recognizes the policy and reporting structure

as a response to microaggressions by naming that support can include connecting people to equity offices and discrimination policies of the university.

I am excited to expand the campaign in collaboration with Amy, an amazing graphic designer and current student at the Faculty of Medicine.

What are some ways that you think students, staff and community members can support EDI in their environment?

- Ensure that everyone gets training on anti-oppression, including staff, faculty, students and leadership. This is so important to achieve a culture shift. Microaggressions is one topic, and there are many others. Training should include a focus on the different layers of oppression—interpersonal, systemic and structural—and the various systems of oppression—transphobia, sexism, racism, homophobia, etc. Learning must be ongoing as these are long-term, complex conversations.
- Everyone should have training on how to receive and make disclosures and reports of discrimination and harassment in a way that is trauma-informed and accountable.
- Think about what actions can be taken, and how current problems and progress can be measured. Then, report back on both the problems and the progress to all key stakeholders to ensure accountability.
- Make equity and anti-oppression central and embedded in everything. For example, how

is anti-oppression woven throughout the entire curriculum? How is an equity lens applied to resource allocation and policy creation? How is anti-oppression as a key competency embedded directly in job descriptions and admissions?

- Understand that the university and health care services and research are not neutral spaces. Leverage institutional power to work in solidarity with grassroots movements of marginalized communities. Continue to learn, unpack, and resist the ways in which the university and health care services and research have historically been complicit in and active arms of systems of oppression, such as settler colonialism in Canada.

What should students and staff do if they witness or are the recipient of a microaggression?

The CARES model provides ways to respond to microaggressions both in the moment and afterwards if you want to engage in allyship. When you witness a microaggression occurring, there are ways to interrupt and help someone think about what they said. The way you respond may be dependent on the situation and whether you feel safe and comfortable doing so. Sometimes you may not feel safe because there is an unequal power dynamic at play (e.g., a teacher and learner scenario). If this happens, attempt to “call in” the person rather than “call them out”. “Calling in” means taking an inquiring approach in which the main focus is to seek mutual understanding and reflection. “Calling someone out” is a more direct approach of interrupting the microaggression.

You may also not respond because you do not feel safe in the moment. This does not mean there is nothing you can do. I encourage you to check in,

empathize and support the individual who experienced the microaggression. You may want to access disclosure and reporting pathways, such as an Equity Office, to disclose what you witnessed or experienced. Some offices, such as OID, may allow for anonymous reporting for individuals who do not feel safe enough to do so. You may want to reach out to trusted friends or Faculty Members for support, and to find ways to address this through training/programs that can be offered to students and staff.

Experiencing microaggressions can be scary, hurtful, and can bring upon feelings of alienation and invalidation. Interrupting and stopping microaggressions from occurring can prevent the perpetuation of racism and discrimination within our academic and work environments. To learn more about this initiative and how to practice the CARES model, visit the University of Toronto’s [Microaggressions and Allyship Campaign page](#).

Edited by Emily Vecchiarelli & Curtis D'Hollander

References

1. Hollingsworth DW, Cole AB, O’Keefe VM, Tucker RP, Story CR, Wingate LR. Experiencing racial microaggressions influences suicide ideation through perceived burdensomeness in African Americans. *J Couns Psychol*. 2017 Jan; 64(1):104-111.
2. Walls ML, Gonzalez J, Gladney T, Onello E. Unconscious biases: racial microaggressions in American Indian health care. *J Am Board Fam Med*. 2015;28(2):231-239.

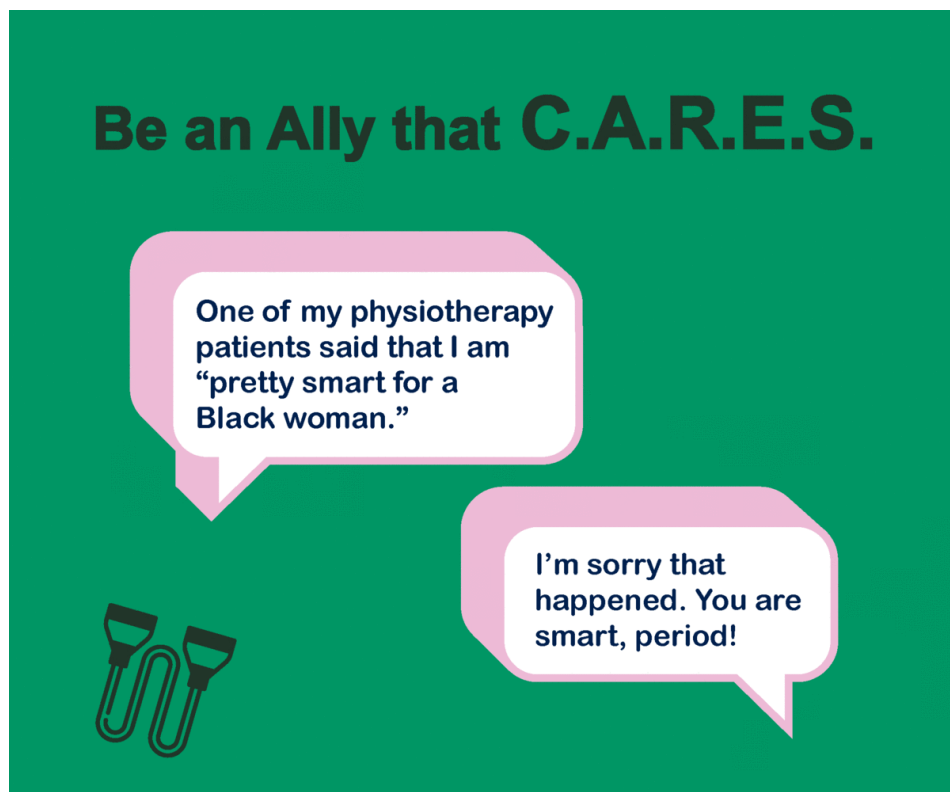


Image Source: medicine.utoronto.ca/microaggressions-and-allyship

FOOD INSECURITY, MENTAL HEALTH, AND POST-SECONDARY STUDENTS

CURTIS D'HOLLANDER

The Food and Agriculture Organization (FAO) of the United Nations defines food insecurity as “lacking regular access to enough safe and nutritious food for normal growth and development and an active and healthy life. This may be due to unavailability of food and/or lack of resources to obtain food”.¹ Food insecurity ranges from mild, meaning there is uncertainty about the ability to obtain food, to severe, when food is missed for a day or more.¹ There are important health implications of food insecurity. A dose dependent response has been demonstrated between food insecurity severity and mental health status – that is, as food insecurity worsens, so does mental health status.² This trend has been observed consistently over all regions around the world, including North America.² The relationship is likely bi-

directional, with food insecurity being extremely stressful, and those already struggling with mental illness at risk for food insecurity.

In Canada, household food insecurity is measured via the Household Food Security Survey Model (HFSSM) on the Canadian Community Health Survey (CCHS) by Statistics Canada. This data was last collected in 2017/2018, which found 1 in 8 Canadian households were food insecure - an increase from 2007/2008 and 2011/2012.³ The relationship between food insecurity and mental health has also been observed in Canada. Jessiman-Perreault & McIntyre used CCHS data from ~300,000 Canadian adults to examine the relationship between food insecurity and 6 adverse mental health outcomes. After adjusting for

socioeconomic and demographic factors, the results clearly supported a possible dose-dependent relationship between food insecurity and mental health outcomes (**Figure 1**).⁴ For instance, if a moderately food insecure household were to become food secure, a 14% reduction in the reporting of depressive thoughts in the past month would be expected.⁴ On the other hand, if a severely food insecure household were to become food secure, a 25% reduction in the reporting of depressive thoughts in the past month would be expected.⁴ Similarly, Davison & Marchall-Fabien used data on three provinces from the CCHS to examine the relationship between food insecurity and suicide ideation among 5,270 Canadian adults. Those with moderate and severe food insecurity were found to be more likely to have suicidal ideation.⁵

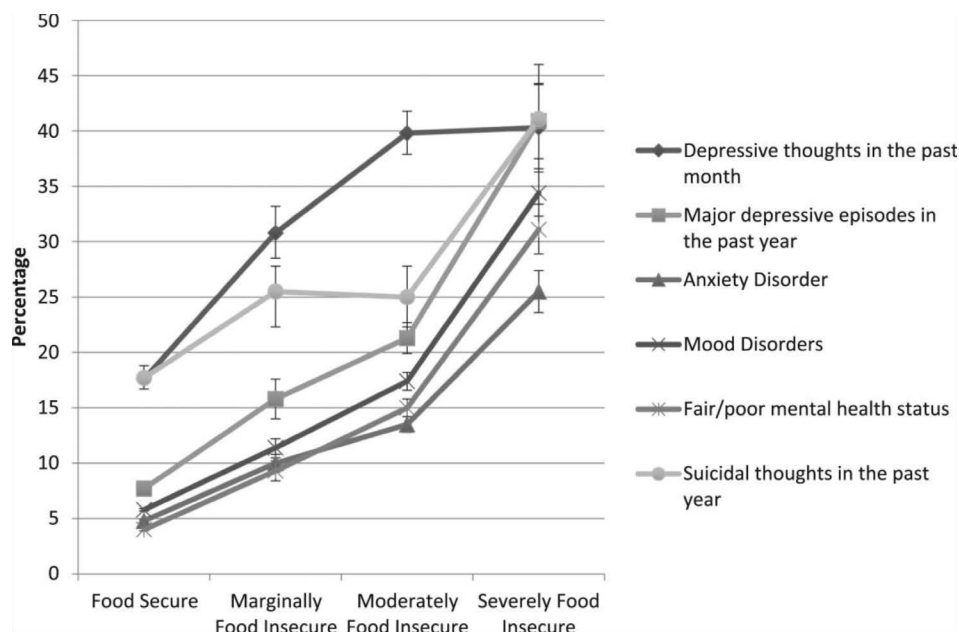


Figure 1 | Percent and 95% confidence intervals of six adverse mental health outcomes reported for each level of household food insecurity (Jessiman-Perreault et al., 2017)

Food insecurity is not experienced equally across Canada. As a vulnerable group, the food insecurity experiences of post-secondary students deserves greater attention. Post-secondary students are faced with high and increasing costs of tuition, housing, and living expenses while receiving little or no income and often carrying debt. For instance, tuition fee increases historically outpace inflation. In 2014/2015, Canadian undergraduate tuition fees rose 3.3% while inflation measured by the Consumer Price Index rose 1.3% in the same period.¹¹ This same trend is shown from 1990 through 2005 in **Figure 2**.¹² Additionally, in the year 2000, the average debt for a Canadian Masters

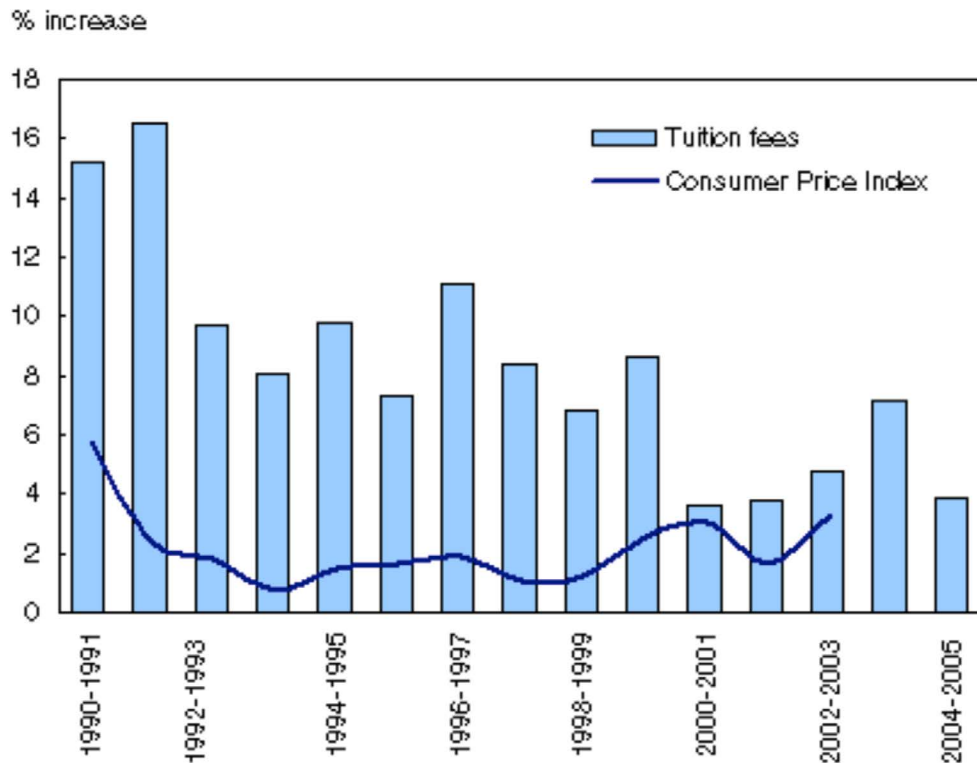


Figure 2 | Rates of increase in Canadian undergraduate tuition fees versus inflation (Statistics Canada, 2004)

student at graduation was \$20,300, while it increased to \$28,000 in 2015.¹³ A search of public databases revealed only 5 recent studies examining food insecurity at Canadian universities. Results are summarized in **Table 1**. There are two important messages from these results; 1) Food insecurity among Canadian post-secondary students is about triple the national average and, 2) There is no data on food insecurity among University of Toronto students.

The purpose of this article is to raise attention to the invisible food insecurity problem which is (very) likely occurring at the University of Toronto and subsequently effecting students' well-being and mental health. For any problem to be solved, it first needs to be well defined, which is why we should collect food insecurity data on University of Toronto students.

Edited by Emily Mastragostino & Jeffrey Lynham

References

1. Food and Agriculture Organization of the United Nations. Hunger and food insecurity [Internet]. [cited 2021 May 27]. Available from: <http://www.fao.org/hunger/en/>
2. Jones AD. Food insecurity and mental health status: A global analysis of 149 countries. *Am J Prev Med*. 2017 Aug; 53(2):264-273. Available from: <https://doi.org/10.1016/j.amepre.2017.04.008>
3. Tarasuk V, Mitchell A. Household food insecurity in Canada, 2017-18 [Internet]. Toronto: Research to identify policy options to reduce food insecurity (PROOF); 2020. Available from: <https://proof.utoronto.ca/wp-content/uploads/2020/03/Household-Food-Insecurity-in-Canada-2017-2018-Full-Reportpdf.pdf>
4. Jessiman-Perreault G, McIntyre L. The household food insecurity gradient and potential reductions in

adverse population mental health outcomes in Canadian adults. *Population Health*. 2017 Dec; 3: 464-472. Available from: <https://doi.org/10.1016/j.ssmph.2017.05.013>

5. Davison KM, Marshall-Fabien GL. Association of moderate and severe food insecurity with suicidal ideation in adults: national survey data from three Canadian provinces. *Soc Psychiatry Psychiatr Epidemiol*. 2015; 50: 963-972.

6. Wagner J, Hayward C, Salatas C. Student food insecurity at Wilfred Laurier University [Internet]; 2020 [cited 2021 May 27]. Available from: <https://static1.squarespace.com/static/5e8ca65bb9823031b5e55b03/t/601c08838861017a99a8604a/1612449938245/Food4Hawks-Report.pdf>

7. Entz M, Slater J, Desmaraise AA. Student food insecurity at the University of Manitoba. *Canadian Food Studies*. 2017 May; 4(1): 139-159.

Author, year, University	How food insecurity was measured	Sample characteristics	Results
Wagner et al., 2020 ⁶ Wilfred Laurier University	Modified HFSSM	n= 844 (4.3% of student population) Undergraduate (89%) Graduate (11%)	Undergraduate: 47% food insecure to some extent Graduate: 51% food insecure to some extent
Entz, 2017 ⁷ University of Manitoba	Modified HFSSM	n= 548 Undergraduate (86%) Graduate (14%)	Undergraduate: 35% food insecure Graduate: 33% food insecure
Olauson, 2017 ⁸ University of Saskatchewan	Modified HFSSM	n= 1,359	39% of students food insecure to some degree
Frank, 2018 ⁹ Acadia University	Modified HFSSM	n= 1,030	38% of students food insecure
Silverthorn, 2016 ¹⁰ Brock University Dalhousie University Lakehead University University of Calgary Ryerson University	Modified HFSSM	n= 4,013 Undergraduate (87%) Graduate (12%)	Undergraduate: 39% food insecure to some degree Graduate: 35% food insecure to some degree

Table 1 | Summary of studies examining food insecurity among Canadian post-secondary students

8. Olauson C, Engler-Stringer R, Vatanparast H, Hanoski R. Student food insecurity: Examining barriers to higher education at the University of Saskatchewan. *Journal of Hunger & Environmental Nutrition*. 2018; 13(1):19-27.

9. Frank L. "Hungry for an Education": Prevalence and outcomes of food insecurity among students at a primarily undergraduate university in rural Nova Scotia. *Canadian Journal of Higher Education*. 2018; 48(2): 109-129.

10. Silverthorn D. Hungry for knowledge: Assessing the prevalence of student food insecurity on five campuses. Toronto: Meal Exchange [Internet]; 2016 [cited 2021 May 27]. Available from: <http://mealexchange.com>

11. Statistics Canada. University tuition fees, 2015/2016. *The Daily* [Internet]; 2015. [cited 2021 May 28]. Available from: <https://www150.statcan.gc.ca/n1/daily-quotidien/150909/dq150909b-eng.htm>

12. Statistics Canada. Paying for higher education [Internet]; 2004 [cited 2021 May 28]. Available from: <https://www150.statcan.gc.ca/n1/pub/81-004-x/200409/7018-eng.htm#ref>

13. Statistic Canada. Table 37-10-0036-01 Student debt from all sources, by province of study and level of study [Internet]; 2015 [cited 2021 May 28]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710003601>



MATERNAL MENTAL HEALTH IN CAMBODIA

The following relates the reasons for, then the running and results of, a study on antenatal and postnatal women's mental health in Cambodia. The study was part of a larger four-year initiative sponsored by the Canadian government and Adventist Development and Relief Agency (ADRA) Canada to positively change women's health in Southeast Asia. [ADRA](#), already on the ground in Cambodian communities and well placed to carry out enough surveys for statistical validity, conducted the study.

First, why do the study? The World Health Organization (WHO) describes mental health as an integral and essential part of health and that, generally speaking, there can be no health at all without it.¹ It has been reported that mental disorders and substance use are responsible

for 6.77% of the global-disability life years (DALYs).² Moreover, an estimated 80% of people with severe mental disorders living in low- and middle-income countries (LMIC) do not receive adequate mental health services.³

Antenatal depression, particularly mild depressive symptoms, may be overlooked by primary health care (PHC) providers during antenatal assessments. The condition and symptoms are often attributed to emotional changes due to fluctuating pregnancy hormones.⁴ However, untreated antenatal depression can be associated with risks of postpartum depression, which has significant consequences for the health and well-being of the infant.⁵ Antenatal depression is a public health concern due to its negative effect on the general health of women. Further,

antenatal depression is associated with underutilization of antenatal care services, complications during pregnancy, negative experiences in childbirth, adverse pregnancy outcomes (e.g., preterm birth, low birth weight, stillbirth, and birth asphyxia), and infant mortality and morbidity (i.e., poor infant growth and development).⁶⁻¹⁰

The World Health Organization (WHO) estimates that by the year 2030, depressive disorder will be the leading cause of global disease burden in women.¹¹ The rate of depressive illness in women of reproductive age (15-49) is projected to be twice that of men in the same age range.¹¹ A systematic review of 21 studies on antenatal depression reported an overall prevalence of 10.7%, though variability was noted in the individual studies (representing upper-middle

and higher-income countries).⁵ The limited studies conducted in low- and middle-income countries, exemplifies the disparity in health research expenditure. The 10/90 gap shows that less than 10% of worldwide investments are directed to health research to address 90% of global health problems.^{12,13} However, available literature suggests that there are higher rates of antenatal depression in low- and middle-income countries.¹¹ A systematic review of studies spanning 17 low- and middle-income countries reported a 15.6% weighted mean prevalence of non-psychotic common perinatal mental disorders.¹³ The weighted mean prevalence of maternal mental health disorders varied between low- and middle-income countries.

Cambodia is a lower-middle-income country in Southeast Asia with an estimated population of 15.6 million.¹⁴ The majority of the people are Buddhists, and the primary language is Khmer. Cambodia's total landmass is 181,035 sq. km,¹⁵ and there are 24 provinces and 185 districts.¹⁶ Cambodia places 46 out of 178 countries in the Fragile States Index, an annual report published by the New Humanitarian news agency.¹⁷

Cambodia has a long history of war and violence, from the civil war in the 1960's and the Khmer Rouge period in the 1970's. This history, coupled with widespread poverty, limited resources, high rates of violence against women, a precarious human rights situation and limited resources for care are contributory causes to the poor mental health problem in Cambodia. An interview with a local Provincial Health Department Director revealed that national documents containing guidelines for mental health care exist, but the available resources and

health care infrastructure are below the WHO's recommendations. Moreover, the Health Director said, there is no budget allocated for mental health at the district level, no mental health specialists, and the mental health training provided to health care workers is insufficient.

Approximately 85% of Cambodians live in rural communities, while mental health facilities are in urban areas.¹⁸ Currently, Cambodia has 1,049 primary health care (PHC) centres that service 10,000-20,000 people. However, in a report from 2010, only 43% of the PHC services provided the complete minimum package of services required by the government.¹⁹

PHC is considered to be the best way for people to receive mental health care; people can access the service closer to their homes, plus stigma and discrimination are minimized.²⁰ Current evidence suggests that mental health care can be delivered effectively in PHC settings with the help of community-based programs and task-shifting approaches. Basic training in mental health care and appropriate supervision by mental health specialists can contribute to non-specialist health professionals' ability to detect, diagnose, and treat patients with mental health disorders,²¹ reducing the number of unnecessary investigations and inappropriate and non-specific treatments. It is complex



to integrate mental health care into PHC, but evidence has shown that community-based services are more effective and cost-effective than hospitals.²²

In Cambodia, antenatal care is focused more on physical health in pregnancy, paying little attention to the psychosocial health of pregnant women. Thus, women with antenatal depression may not be identified during the prenatal period to initiate psychosocial interventions to prevent or mitigate the adverse consequences associated with antenatal depression. The social and environmental context is essential to consider, as they have predominantly been associated with antenatal depression.²³ Understanding the magnitude and risk factors of antenatal depression is imperative to improving maternal mental health, and fulfilling the UN's Sustainable Development Goals (SDGs) numbers 3 and 5: promoting good health and well-being of mothers and children and advancing gender equality among populations, respectively.

The statistics from the study also reflect and include the unreported and unrepresented proportion of women who suffer from anxiety and depression during their pregnancy. Within Cambodia, there has been no national measurement of maternal anxiety or depression. Consequently, their potential impact on the mother and her child in relation to health intervention success, nutrition, child or maternal health has not been explored.

In close collaboration with other organizations, a study conducted by Pugh (2009) has researched this phenomenon in three Cambodian provinces, with the aim of measuring the prevalence of anxiety and

depression in the pregnant population and their impact as risk factors for low birth weight within the cohort.

In response to all these concerns, ADRA sought to intervene during its four-year maternal and child health programme, called EMBRACE. Through EMBRACE, researchers from the Canadian office, in partnership with the local ADRA office in Cambodia plus other locals at the provincial and municipal levels of government, co-designed and conducted research to identify the current prevalence rates of antenatal depression and anxiety within its targeted project sites, Chaom Khsant, Rovieng, and Sandaan districts. Additionally, the research aimed to identify mental health services currently available to community members within its targeted villages. ADRA's research identified six sites for crucial informant interviews made up of government health facilities (one hospital and five health centers), that provide comprehensive antenatal care services. A total of 11 key informant interviews (KII) were conducted at local health facilities, including personnel such as health centre directors, physicians, and nurses. The

interviewees outlined the availability of mental health services currently provided within a primary care setting. Additionally, over 300 pregnant women were interviewed using the Edinburgh Postnatal Depression Scale (EPDS), the standard and most commonly used tool by health professionals during prenatal care for determining the risk of associated depression during pregnancy.

Based on the interviews conducted in these regions, researchers discovered that 21 of 302 (7%) mothers identified as having depression (they scored 13 points or higher on the EPDS) and were referred for counseling. Likewise, the remaining 281 (93% of) pregnant women scored below 13, indicating no self-reported depression. Current depression rates range from 11.5% to 80% in Cambodia, meaning that our results were just outside of the current range of depression within the country. However, given that these results were specific to pregnant women during their pregnancy, our results indicated lower rates of depression among pregnant women than outlined by Pugh (2009).

These contrasting results may





be explained by various reasons, including study design, tools used, cut-offs established and/or differences in social and environmental risk factors contributing to depression. Likewise, it may be caused by stigma, cultural constraints, and taboos associated with mental health disorders in Cambodia and worldwide. One final explanation may be the implementation of ADRA's EMBRACE project between 2016 and 2020. During EMBRACE, the project's targeted communities received ongoing and sustainable support by constructing additional maternity wards at targeted health centres, training for frontline health workers to enhance to current levels of care experienced by women in surrounding villages, and community-led financially sustainable savings groups to allow pregnant women better access to antenatal care services that are crucial to proper and healthy fetal and newborn development.

Based on the findings conducted by ADRA within the EMBRACE project in Cambodia, it is recommended that program designers of maternal health projects in developing countries aim to incorporate a mental health

component for psychosocial support that is fully integrated into the delivery of antenatal and postnatal care check-ups. This will allow health care professionals at the community level to determine early in the life of a project or intervention the need for additional support.

Edited by Emily Mastragostino & Jeffrey Lynham

References

1. World Health Organization. Mental health: strengthening our response. <http://www.who.int/mediacentre/factsheets/fs220/en/2016>. Accessed 04 Dec 2018.
2. Institute for Health Metrics and Evaluation. Global burden of disease. <https://vizhub.healthdata.org/gbd-compare/2016>. Accessed 04 Dec 2018.
3. World Health Organization. Mental health atlas 2011. Geneva: World Health Organization; 2011. [Google Scholar]
4. Brown MA, Solchany JE. Two overlooked mood disorders in women:

subsyndromal depression and prenatal depression. *Nurs Clin North Am*. 2004;39:83–95. DOI: 10.1016/j.cnur.2003.11.005. [PubMed] [CrossRef] [Google Scholar]

5. Bennett HA, Einarson A, Taddio A, Koren G, Einarson TR. Prevalence of depression during pregnancy: systematic review. *Obstet Gynecol*. 2004;103:698–709. DOI: 10.1097/01.AOG.0000116689.75396.5f. [PubMed] [CrossRef] [Google Scholar]

6. Rondo PH, Vaz AJ, Moraes F, Tomkins A. The relationship between salivary cortisol concentrations and anxiety in adolescent and non-adolescent pregnant women. *Braz J Med Biol Res*. 2004;37:1403–1409. doi: 10.1590/S0100-879X2004000900016. [PubMed] [CrossRef] [Google Scholar]

7. Marcus SM. Depression during pregnancy: rates, risks and consequences--Motherisk Update 2008. *Can J Clin Pharmacol*. 2009;16:e15–22. [PubMed] [Google Scholar]

8. Wisner KL, Sit DK, Hanusa BH, Moses-Kolko EL, Bogen DL, Hunker DF, Perel JM, Jones-Ivy S, Bodnar LM, Singer LT. Major depression and antidepressant treatment: impact on pregnancy and neonatal outcomes. *Am J Psychiatry*. 2009;166:557–566. doi: 10.1176/appi.ajp.2008.08081170. [PMC free article] [PubMed] [CrossRef] [Google Scholar]

9. Rahman A, Bunn J, Lovel H, Creed F. Maternal depression increases infant risk of diarrhoeal illness: --a cohort study. *Arch Dis Child*. 2007;92:24–28. doi: 10.1136/adc.2005.086579. [PMC free article] [PubMed] [CrossRef] [Google Scholar]



10. Alder J, Breitingner G, Granado C, Fornaro I, Bitzer J, Hösli I, Urech C. Antenatal psychobiological predictors of psychological response to childbirth. *J Am Psychiatr Nurses Assoc.* 2011;17:417–425. doi: 10.1177/1078390311426454. [PubMed] [CrossRef] [Google Scholar]
11. Department of Reproductive Health and Research WHO . Mental health aspects of women's reproductive health: a global review of the literature. Geneva: World Health Organization; 2009. [Google Scholar]
12. Premji S, MIGHT. Perinatal distress in women in low- and middle-income countries: allostatic load as a framework to examine the effect of perinatal distress on preterm birth and infant health. *Matern Child Health J* 2014, June 13[Epub ahead of print]. [PMC free article] [PubMed]
13. Fisher J, Cabral de Mello M, Patel V, Rahman A, Tran T, Holton S, Holmes W. Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. *B World Health Organ.* 2012;90:139G–149G. doi: 10.2471/BLT.11.091850. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
14. The World Bank. Cambodia 2014. <http://data.worldbank.org/country/cambodia>. Accessed 14 Dec 2018.
15. Cambodian information center. Country profile of Cambodia 2015. <http://www.cambodia.org/facts/> Accessed 14 Dec 2018.
16. National Institute of Statistics MoPPP, Cambodia. General population census of Cambodia 2008; 2008. http://www.stat.go.jp/english/info/meetings/cambodia/pdf/pre_repl.pdf.
17. The Fund for Peace. Fragile states index 2016. <http://fsi.fundforpeace.org/rankings-2016>.
18. McLaughlin D, Wickeri E. Mental health and human rights in Cambodia. New York: Leitner Center for International Law and Justice Fordham Law School; 2012. [Google Scholar]
19. World Health Organization, Ministry of health Cambodia . Health Service Delivery Profile, Cambodia, 2012. Phnom Penh: World Health Organization, Ministry of health Cambodia; 2012. p. 2012. [Google Scholar]
20. World Health Organization. Integrating mental health into primary care: a global perspective. Geneva: World Health Organization; 2008. [Google Scholar]
21. Kakuma R, Minas H, van Ginneken N, Dal Poz MR, Desiraju K, Morris JE, et al. Human resources for mental health care: current situation and strategies for action. *Lancet.* 2011;378(9803):1654–1663. doi: 10.1016/S0140-6736(11)61093-3. [PubMed] [CrossRef] [Google Scholar]
22. World Health Organization. mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological, and substance use disorders. Geneva: World Health Organization; 2008. [Google Scholar]
23. Adewuya AO, Ola BA, Aloba OO, Dada AO, Fasoto OO. Prevalence and correlates of depression in late pregnancy among Nigerian women. *Depress Anxiety.* 2007;24:15–21. doi: 10.1002/da.20221. [PubMed] [CrossRef] [Google Scholar]
24. Pugh R (2009) Maternal mental health: A risk factor for low birth weight in Cambodia? A cohort study from Preah Vihear Province. *Health Unlimited*, Phnom Penh.



ELUCIDATING THE MENTAL HEALTH CRISIS IN ACADEMIA

NORZIN SHRESTHA

Mental Health and *mental illness* are often wrongly used interchangeably. Similar to how we take care of our physical health by exercising and eating healthy, it is equally important to take care of our mental health. Yet, why is it easier to discuss our physical health with a doctor (i.e., when we break a bone or develop a cold), but it is more difficult to talk to someone when our mental health is suffering? Poor mental health does not need to be permanent. Whether it is with medication, counseling or setting aside some “me time,” it is possible to be mentally well. Unfortunately, poor mental health is very prominent in academia.

There are numerous factors that contribute to poor mental health in academia, including imposter syndrome, financial concerns, poor supervisor relationships, and toxic lab dynamics. Most people completely give up their hobbies and stop having a social life so that they can give their full attention to their work. I was also guilty of this myself — I used to be

in the lab fourteen hours a day, seven days a week and the lab was practically my home. Later, I realized that I was actually crippling my growth as a scientist. This is a very common work model in academia and probably one of the main contributors to the mental health crisis we are currently facing. There is this idea that long work hours lead to more data and more publications, and this is engrained in the mindset of many academics. Don’t get me wrong, you do need to work hard in order to get results, but perhaps we need to emphasize the need to work smart and efficiently rather than working long hours.

The culture of working long hours also induces feelings of isolation and guilt. Many academics feel isolated from their non-academic friends and family, as we are busy working in our labs. Moreover, it’s extremely difficult to explain our lifestyle to those outside of academia. We also tend to feel guilty as we cannot spend as much time with them as we used to, which often leads to strained relationships. Having a

good support system is crucial while going through such a demanding experience in graduate school. Excluding our friends and family, this support system usually consists of our supervisor and colleagues in the lab. Now, imagine if our relationship with our supervisor and colleagues isn’t a healthy one... wouldn’t that pose as an immense source of stress? As a student, our academic and professional future relies heavily on guidance from our supervisor. If our relationship with our mentor isn’t conducive to understanding and growth, this can disrupt our mental health significantly and become a major source of anxiety.

Another common source of suffering for academics is imposter syndrome. I think almost everyone has felt inadequate and doubted their own accomplishments at some point in their graduate careers. Not only do we have to work hard (and smart), we are also “tested” at every stage of our careers, whether it is with committee meetings, presenting posters/talks at conferences, and defending our work

at the end of graduate school. So, in this competitive and sometimes hostile environment (depending on the lab you're working in), a failed experiment or a failed project can send us to a very dark place mentally. In reality, failure is a part of life and sometimes, things don't work out as we had planned or envisioned. In times like these, we really ought to remind ourselves that some failed experiments have resulted in scientific breakthroughs!

Graduate school is a very challenging experience, however, there are other professions that are equally, if not more, challenging. What are we doing that is debilitating the mental health of our communities? I think it's crucial to point out that even though the majority of work published on mental health focuses on graduate students, there are other members of our community who are also suffering (i.e., post-doctorate fellows, faculty members and lab staff). If they were experiencing mental health issues in school and didn't seek help, then their poor mental health has not been addressed their whole career!

Everything that I have touched upon so far is a part of the global mental health problem. It's not just restricted to our department or to the University

of Toronto. Nevertheless, if we want to see change, we have to start small and that would be here within the Cell and Systems Biology (CSB) Department. Financial concerns, inside and outside of academia, are major contributors of stress, anxiety, and depression. Compared to other departments, serving as a teaching assistant (TA) is a part of our stipend. So, in addition to conducting experiments, we have to be a TA, while also taking some grad courses. For those of us who want to stay in academia and become professors, this is the ideal situation as we have a guaranteed position. For others who plan on working in industry, venturing outside of academia and industry or who have terrible time-management and multi-tasking skills, it is extremely stressful and more of a nuisance. Then, there are those of us who have families to support and the current stipend is really not enough!

When I started my PhD, I wasn't aware of the mental health crisis in academia. As I progressed through graduate school, I began to notice many friends slip from being mentally healthy to developing anxiety, depression and some who even contemplated suicide. Being on the caregiver side of the struggle, it was heartbreaking to watch

such brilliant and strong individuals suffer. In my pursuit to help them, I realized that the department didn't have any resources in place to help those who were suffering. There was no conversation around mental health and absolutely no awareness of the current crisis. It was then that I decided it was time to take action and founded the St. George CSB Wellness Committee. The committee consists of graduate students, a post-doctoral fellow, a staff member and faculty members. I believe that the best way to tackle this crisis is by working together. This committee will hopefully be useful for those who don't feel comfortable disclosing their feelings to their social circle or for those without one (such as international members, labs with only one student, and domestic but out of province members of our community). The goal of the committee is to increase awareness surrounding the mental health crisis, while advocating for the wellbeing of everyone at CSB. So, if you are reading this and you are suffering, please reach out to someone. It doesn't matter who. Just someone. Sometimes, just the act of talking helps.

If you are experiencing emotional distress and would rather speak to someone outside of our department or university, please contact one of the following crisis lines:

Good2Talk: 1-866-925-5454
Gerstein Centre Mental Health
Crisis Helpline: 416-929-5200
Toronto Distress Centres:
416-408-4357
Crisis Services Canada:
1-833-456-4566
Kids Help Phone: 1-800-668-6868

*Article previously featured in CSB's
[The Forefront](#)*

Illustrations by Cynthia Wong





INCOME INEQUALITY AND MENTAL HEALTH

JEFFREY LYNHAM

If you watch the news these days, you cannot help but notice many reports of violent crimes and mental illness. Countries all over the world face these issues to some degree. Yet why is Japan's homicide rate less than 5% of that in the United States?¹ Also, why is the incidence of mental illness in Germany less than half of that in Canada?² The answer to these questions may be income inequality.

Broadly speaking, income inequality refers to how large the income gap is between the poorest and richest in a society. Many people view income inequality as a problem only when it creates extreme poverty, but they fail to realize that it causes psychological distress, even among the wealthy. Dr. Richard Wilkinson, Professor

Emeritus of Social Epidemiology at the University of Nottingham, offers a more sophisticated view of income inequality:

"Inequality brings out features of our evolved psychology to do with dominance and subordination, superiority and inferiority. It affects how we treat each other and feel about ourselves. Inequality increases status competition and status insecurity. It increases anxieties about self-worth, and intensifies worries about how we are seen and judged – whether as attractive or unattractive, interesting or boring ..."³

In their book, *The Spirit Level*, Dr. Richard Wilkinson and Dr. Kate Pickett suggest, through their work

and the work of many other scholars, that health and social problems are much more prevalent in societies with larger income differences between the rich and poor (**Figure 1**).⁴ Countries that are more equal, like Norway, Sweden, and Finland, have a low index of health and social problems, whereas countries that are less equal, like the UK, Portugal, and the United States have a high index of health and social problems (**Figure 1**). These problems include poor math and literacy scores in children, higher rates of infant mortality, teenage births, imprisonment, obesity, and drug addiction, as well as lower life expectancy.⁴ The research literature on income inequality and health and social problems is far beyond the scope of this article; however, I would like

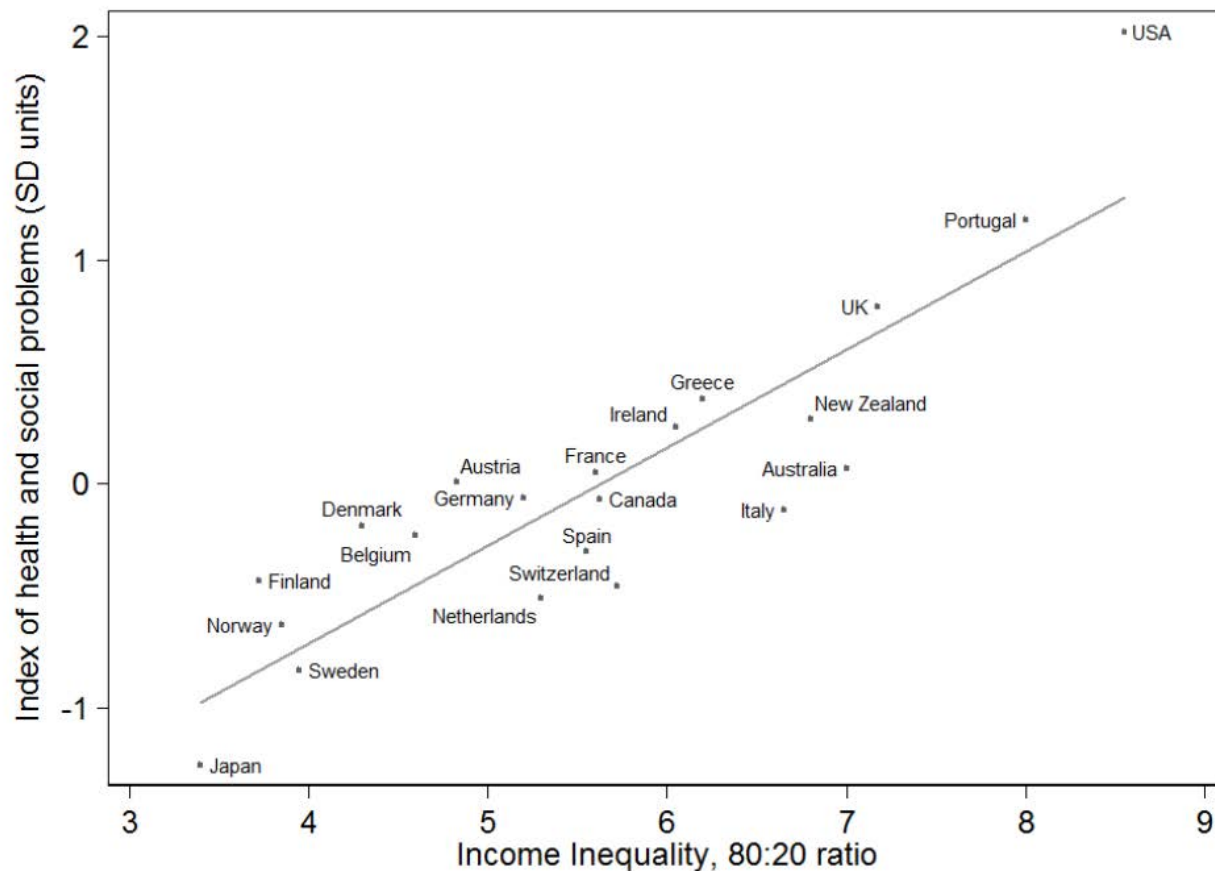


Figure 1 | Correlation between income inequality and index of health and social problems. Income inequality measured by the ratio between the average income of the top 20% to the bottom 20% (80:20 ratio). Source: Wilkinson, R.G. & Pickett, K. *The spirit level : why equality is better for everyone*, (Penguin Books, London, 2010).

to highlight a few significant findings that show a correlation between income inequality and poor mental health outcomes, including stress, anxiety, depression, and narcissistic traits.

Mental illness is now the leading cause of disability in Canada,⁵⁻⁷ with 1 in 5 Canadians struggling with their mental health in any given year.⁸ The burden of mental health problems in Canada is overwhelming the healthcare system. Wait times for counselling and therapy can be long, especially for children. In Ontario, six month- to one year wait times are common.⁹ Are these high levels of mental illness an inevitable consequence of modern life in a high-income country? Maybe not. Rates of mental illness vary substantially among high-income countries, with

greater income inequality showing a strong positive correlation with mental illness and drug misuse (**Figure 2**).⁴ Wilkinson and Pickett suggest that this association is most likely mediated by the impact of inequality on status differentiation and social cohesion. One caveat of this analysis, however, is that it did not take into account cultural differences across countries. Nevertheless, the percentage of mental illness in each country was measured in the same way, and there were still large differences.

If income inequality makes status differentials more noticeable, then people in a more unequal society may be susceptible to stress through perceived social evaluative threats. A meta-analysis of 208 studies, in which volunteers had been given stressful tasks to perform while having their

stress hormones monitored, found that tasks involving uncontrollable social evaluative threats, like public speaking or solving math problems in front of an audience, invoked the greatest stress responses.¹⁰ These findings demonstrate that people are most stressed when they feel like they are being judged by others, which is consistent with poor mental health being more prevalent in unequal societies. Indeed, this was confirmed in 2014 by Dr. Richard Layte and Dr. Christopher Whelan. When analyzing data from 35,634 adults in 31 countries that participated in the 2007 European Quality of Life Survey, Layte and Whelan found that, across all income levels, status anxiety was higher in more unequal countries (**Figure 3**).¹¹

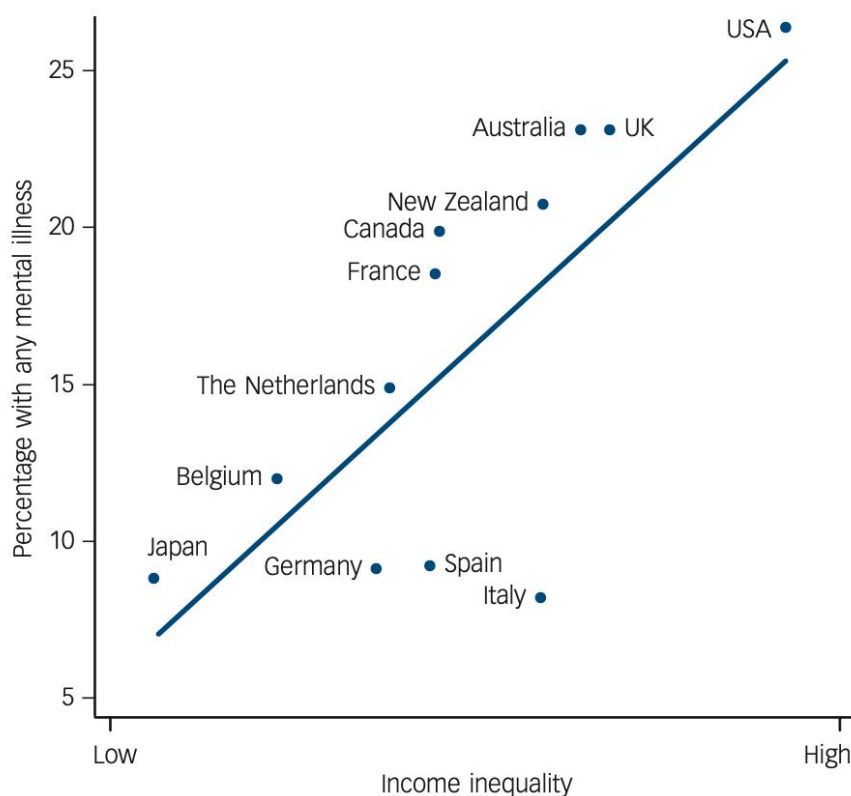


Figure 2 | Correlation between income inequality and mental illness. Source: Wilkinson, R.G. & Pickett, K. *The spirit level : why equality is better for everyone*, (Penguin Books, London, 2010).

If humans are sensitive to threats to their self-esteem or social status, then this suggests that people living in more unequal societies, especially those on either side of the spectrum, may be more susceptible to poor mental health. More specifically, those with lower incomes may develop feelings of inadequacy, self-doubt, low self-esteem while those with higher incomes may develop forms of self-enhancement and narcissistic traits.¹² Within the last decade, Dr. Sheri Johnson and colleagues identified the Dominance Behavioural System (DBS) as a “biologically-based system” that guides dominant and subordinate behavior as well as responsivity to perceptions of power and subordination.¹³ A growing body of research suggests that problems involving issues of dominance and subordination processed by the DBS contribute to a broad range of psychopathologies. Dr. Johnson

suggests that “externalizing disorders, mania proneness, and narcissistic traits are related to heightened dominance motivation and behaviors. Mania and narcissistic traits also appear related to inflated self-perceptions of power. Anxiety and depression are related to subordination and submissiveness, as well as a desire to avoid subordination.”¹³

When Johnson and colleagues published their findings, they assumed that social hierarchies were similar in most societies. Interestingly, the psychopathies related to the DBS are more common in unequal societies. In a study of 15 different countries, Dr. Steve Loughan and colleagues asked participants to answer a standard questionnaire that involved rating themselves on 20 desirable personality traits compared to what they thought was the average in their country. They found that self-enhancement is

strongly related to income inequality.¹⁴ In another study of 93 countries with data from more than 80,000 people, almost 15% of participants reported feeling depressed, and there was a wide variation from one country to another.¹⁵ While average incomes were not related to feeling depressed, income inequality was. Moreover, this effect was stronger for people living in cities rather than in rural areas.¹⁵

Many of us don’t see income inequality as an underlying cause of poor mental health. Similar to a doctor who only treats symptoms, we are not addressing the cause of the illness. So, what can be done about income inequality? One solution could be to raise top-level tax rates and redistribute the money to the poor, which would be effective in adjusting income levels. Addressing income inequality through taxes may sound appealing, however, these changes are often unsustainable since they can be rapidly overturned by a change in government. Another solution could be to encourage democratic ownership of companies, i.e., when companies are owned by their employees who can then make joint decisions. Studies have shown that, in such companies, pay ratios are reduced and employees have a greater tendency to treat each other as equals.¹⁶ While there may be disagreements on the best way to reduce income inequality, there is a growing consensus among Canadians that it should be reduced because it may have “a long-term, negative impact on Canada by reducing our standard of living.”¹⁷ In summary, these findings suggest that creating a more equal society is better for everyone, especially when it comes to our mental health.

Edited by Emma Syron & Curtis D'Hollander

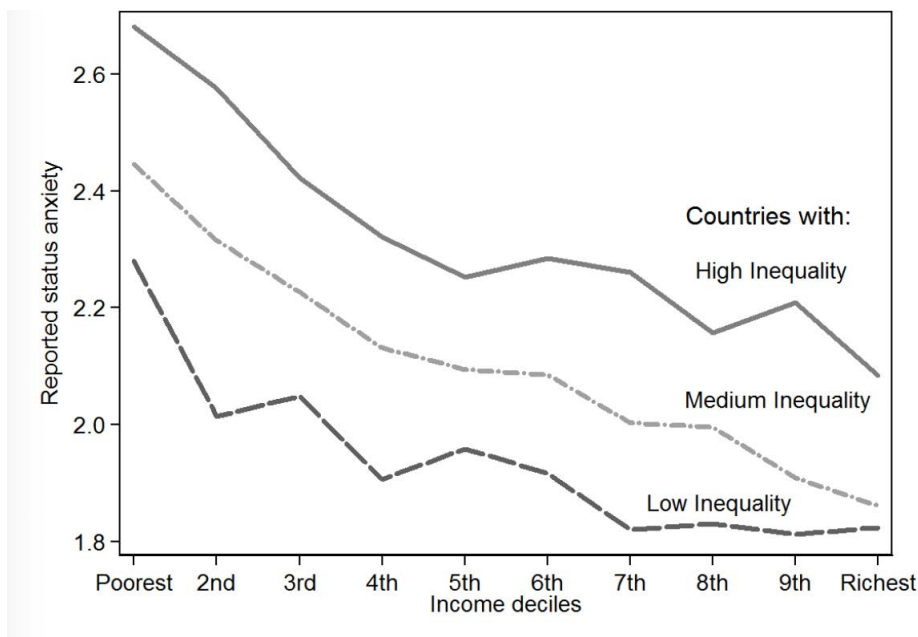


Figure 3 | Reported status anxiety vs. income deciles. Source: Layte, R. & Whelan, C.T. Who Feels Inferior? A Test of the Status Anxiety Hypothesis of Social Inequalities in Health. *European Sociological Review* 30, 525-535 (2014).

References

1. Japan Data. Homicide and Robbery Rates Extremely Low in Japan. (<https://www.nippon.com/en/japan-data/h00888>, 2020).

2. Tikkanen, R., et al. Mental Health Conditions and Substance Use: Comparing U.S. Needs and Treatment Capacity with Those in Other High-Income Countries. Commonwealth Fund (2020).

3. Wilkinson, R.G. Culture, Equality and Mental Health. The Weekend University.

4. Wilkinson, R.G. & Pickett, K. The spirit level : why equality is better for everyone, (Penguin Books, London, 2010).

5. Murray, C., et al. Global burden of diseases, injuries and risk factors study 2013. *The Lancet* 22 (2014).

6. Mental Health Commission of Canada. Why investing in mental health

will contribute to Canada's economic prosperity and to the sustainability of our health care system. (<http://www.mentalhealthcommission.ca/English/node/742>, 2014).

7. Lim, K.L., et al. A new population-based measure of the economic burden of mental illness in Canada. *Chronic Dis Can* 28, 92-98 (2008).

8. Smetanin, P., et al. The Life and Economic Impact of Major Mental Illnesses in Canada: 2011 to 2041. RiskAnalytica, on behalf of the Mental Health Commission of Canada (2011).

9. Children's Mental Health Ontario. Ontario's children waiting up to 1.5 years for urgently needed mental healthcare. in Children's Mental Health Ontario (<https://cmho.org/blog/article2/6519717-ontario-s-children-waiting-up-to-1-5-years-for-urgently-needed-mental-healthcare-3>, 2016).

10. Dickerson, S.S. & Kemeny, M.E. Acute stressors and cortisol responses: a theoretical integration and synthesis of laboratory research. *Psychol Bull* 130, 355-391 (2004).

11. Layte, R. & Whelan, C.T. Who Feels Inferior? A Test of the Status Anxiety Hypothesis of Social Inequalities in Health. *European Sociological Review* 30, 525-535 (2014).

12. Wilkinson, R.G. & Pickett, K.E. The enemy between us: The psychological and social costs of inequality. *European Journal of Social Psychology* 47, 11-24 (2017).

13. Johnson, S.L., et al. The dominance behavioral system and psychopathology: evidence from self-report, observational, and biological studies. *Psychological bulletin* 138, 692-743 (2012).

14. Loughnan, S., et al. Economic Inequality Is Linked to Biased Self-Perception. *Psychological Science* 22, 1254-1258 (2011).

15. Melgar, N. & Rossi, M. A Cross-Country Analysis of the Risk Factors for Depression at the Micro and Macro Levels. *American Journal of Economics and Sociology* 71, 354-376 (2012).

16. Weber, W.G., et al. The influence of organizational democracy on employees' socio-moral climate and prosocial behavioral orientations. *Journal of Organizational Behavior* 30, 1127-1149 (2009).

17. Horgan, C. Concern over income inequality growing, polls suggest. (<https://ipolitics.ca/2012/04/10/concern-over-income-inequality-growing-polls-suggest>, 2012).

THE LINK BETWEEN EQUITY AND MENTAL HEALTH

AMY CHAN

The social determinants of health, which are non-medical factors that impact health outcomes, are a significant topic at the intersection of equity and mental health.¹ The environment where we grow, live, and work impact both physical and mental wellbeing, and research has demonstrated that individuals who face social and economic inequities are at a greater risk of experiencing poor mental health.¹ In this article, I hope to shed some light on the current mental health equity research, how we can improve access to mental health services, and how to promote mental health in the community.

How Does Social Equity Relate to Mental Health?

Mental health is strongly tied to our intersectional identities and our personal experiences with social inequity, marginalization, and discrimination. For instance, individuals who have experienced poverty are at a greater risk of developing mental disorders.² Countless research has demonstrated that experiencing or internalizing racism can increase the risk of depression, anxiety, substance abuse, and post-traumatic stress disorder.³ Similarly, LGBTQ+ individuals may face discrimination on the basis of sexual orientation, gender, disability and income, and thus, face greater marginalization

and risk for mental health issues.⁴ When trying to find the right care, it has been shown that marginalized groups face greater barriers in accessing the necessary services and supports to recover from mental illness, which further perpetuates the mental health inequity seen in the community.⁵ While the effect of social equity on mental health is apparent, the relationship is considerably bi-directional; poor mental health and experiencing mental health illness can also adversely impact social equity.⁵

More recently, the novel coronavirus disease of 2019 (COVID-19) has globally disrupted economic and healthcare operations, education, and community health. It has resulted in a global increase of unemployment and business closures. The adjustment towards home confinement has been associated with an increased prevalence of anxiety, depression, and sleep disturbances including insomnia. Particularly, individuals from disadvantaged backgrounds and marginalized communities may experience an even greater risk of mental health concerns during COVID-19.³ This can come from a lack of social connection, limited access to resources, and stressful events including experiencing grief and unemployment.

What Can We Do?

As students and community members, we are an integral part in the advocacy, promotion, and delivery of mental health services. Here are some ways we can support others in the community:

- **Donate** – Donate items in need or dollars to support the efforts of an organization or movement that you hope to advocate for. Your donation can be used to support

the individuals who dedicate their time and effort to continue the cause!

- **Collaborate with or volunteer for an organization** – Many social justice and mental health organizations rely on folks from the community to keep their operations going. If you are a student, think about ways to bring these important causes to the student body through collaboration, or volunteer with an organization that you share important values with. If you're an entrepreneur or business owner, feature the organization in your store, or develop events to drive community involvement!
- **Spread awareness** – Spreading awareness about the cause can be done in so many ways! From simply 'liking and sharing' educational resources and organizations on social media, to developing fundraisers, conferences, or seminars to educate the public on the cause. You are an integral part of connecting community members to these important causes and starting the movement.
- **Participate in research focused on mental health equity** – Contribute to the research efforts on mental health equity by participating in local or international studies. Research is important to inform policies and direct how institutions can better support those in need.
- **Advocate for changes in policies, institutional goals, school curriculum** – In addition to spreading awareness, advocating for these changes is the next step! This could include writing letters to student and community

councils or joining groups that actively work toward improving policies and school curriculums.

What to do if you are experiencing mental health concerns. If you are experiencing mental health concerns, there are many ways to get help.

Access Canada Suicide Prevention Service at crisiservicescanada.ca, by phone at 1-833-456-4566, or by text (45645).

For kids and youth, contact Kids Help Phone at 1-800-668-6868, by chat at <https://kidshelpphone.ca>, or by text (CONNECT to 686868).

For University of Toronto students, find someone to talk to right now at <https://studentlife.utoronto.ca/task/support-when-you-feel-distressed/>.

If you are experiencing an immediate mental health crisis, call 911.

Edited by Anglin Dent & Curtis D'Hollander

References

1. Shim R, Koplan C, Langheim FJP, Manseau MW, Powers RA, Compton MT. The Social Determinants of Mental Health: An Overview and Call to Action. *Psychiatric Annals*. 2014 Jan 1;44(1):22–6.

2. Ngui EM, Khasakhala L, Ndeti D, Roberts LW. Mental disorders, health inequalities and ethics: A global perspective. *International Review of Psychiatry*. 2010 Jun;22(3):235–44.

3. Condon EM, Dettmer AM, Gee DG, Hagan C, Lee KS, Mayes LC, et al. Commentary: COVID-19 and mental health equity in the United States. *Front Sociol*. 2020 Nov 19;5:584390.

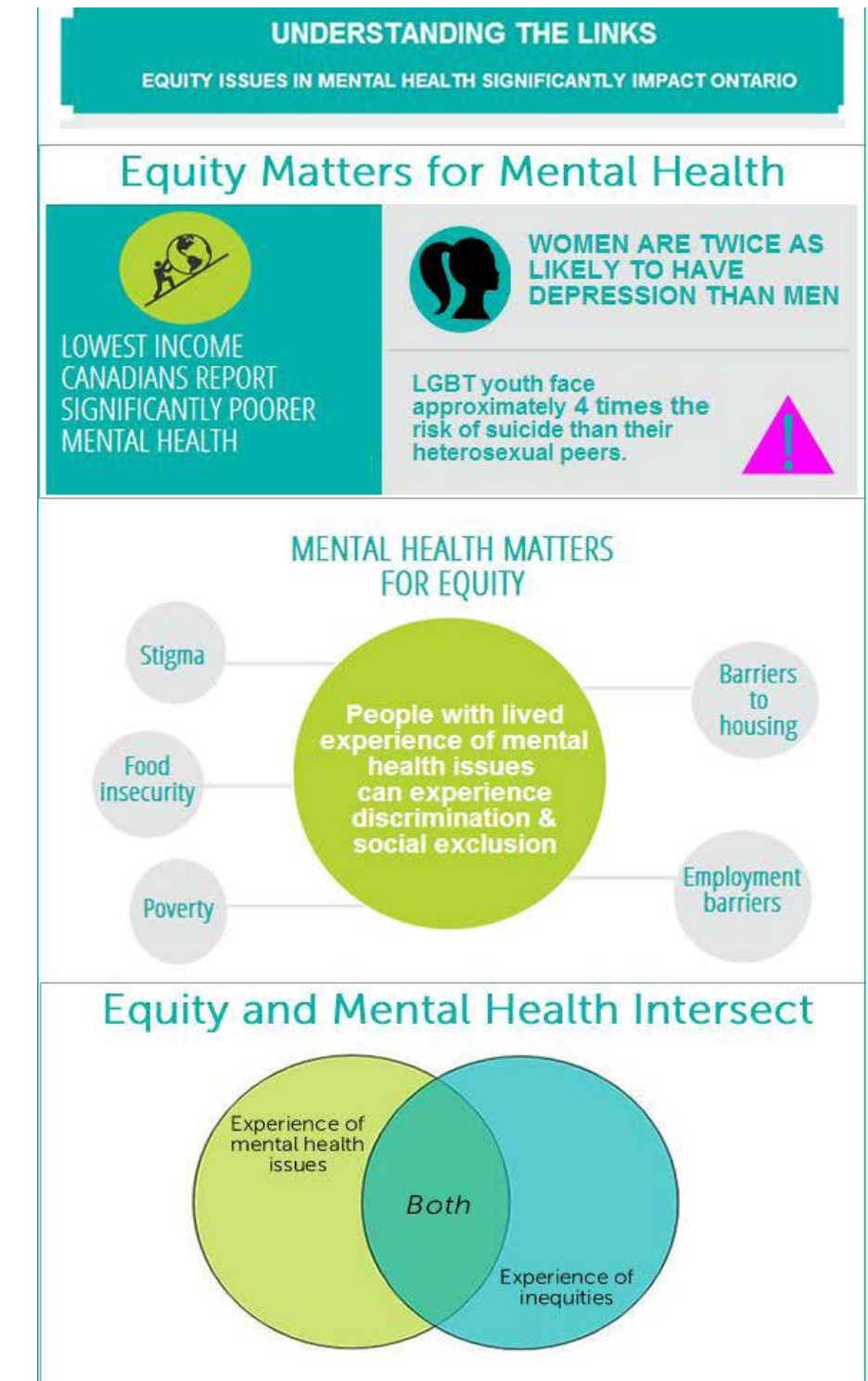


Image Source: <https://ontario.cmha.ca/equity/>

4. Canadian Mental Health association. Racism and Mental Health. [Internet]. Ontario. Available from <https://cmha-yr.on.ca/learn/news/racism/>.

5. Canadian Mental Health association. Lesbian, Gay, Bisexual, Trans & Queer identified People and

Mental Health. [Internet]. Ontario. Available from <https://ontario.cmha.ca/documents/lesbian-gay-bisexual-trans-queer-identified-people-and-mental-health/>.

6. Canadian Mental Health association. Equity. [Internet]. Ontario. Available from <https://ontario.cmha.ca/equity/>.



THE PROTECTIVE FACTORS OF MENTAL HEALTH AMONG ETHNIC MINORITIES DURING COVID-19

AGNES WONG

COVID-19 poses a serious threat to global mental health. The situation could be particularly concerning in ethnic minorities who might additionally be facing racial discrimination. According to a recent study, Asian American adult college students are protected from the psychological distress caused by racial discrimination, if they have high levels of both ethnic identity commitment and metastereotype awareness (MSA). MSA refers to the awareness regarding stereotypes others hold of their ethnic group.¹ It should be noted that they are protected from the psychological distress only when both variables (ethnic identity commitment and MSA) are at a high level. For instance, if the person is aware of the stereotypes held by others but without the protective sense of belonging to the ethnic group, then one may suffer from psychological distress. Similarly,

if one person feels a strong sense of belonging to the group but without being aware of the stereotypes held by others, then the person will still feel psychologically distressed. However, those who were unaware of the stereotypes and had little attachment to their ethnic group were also protected from psychological distress.¹

Nevertheless, discrimination is omnipresent globally especially due to COVID-19. The long-term effects of being unaware of the stereotypes held by others can be detrimental as college students will be unprepared to deal with discrimination when they enter the workforce.¹ Previous studies similarly showed that associating with an ethnic identity bolsters mental health among minorities.^{2,3} Ethnic identity is a crucial source of resilience and can help minorities respond positively to the adverse situations

due to discrimination.² While being unaware of stereotypes and having little attachment to ethnic groups can protect some from psychological distress, it can leave individuals unprepared for social interactions and isolated from alternative protective factors.

So, how can we help ourselves and our friends? If you are one of the ethnic minorities and face racial discrimination at times, then you may consider engaging in some cultural activities to help you feel positive about your own ethnic group and enhance your sense of belonging. One suggestion is to learn the history of your ethnic group and read books about your specific cultural heritage.^{1,2} If you are an ally who wants to help your friend, then you must first take good care of yourself, and then try to be aware of and understand the

stress and discrimination that your friend may be experiencing due to COVID-19. Listening actively, taking their concerns seriously, learning about cultural differences, being respectful, and giving your warm support and care when needed.

In addition, appropriate coping strategies are essential for mental health of ethnic minorities during this stressful period. You may have experience in coping actively, which can include problem-solving or seeking emotional support. On the other hand, you may detach from the stressor by socially withdrawing. These are examples of engagement and disengagement coping strategies respectively.⁴

Surprisingly, the literature in the area of engagement and disengagement coping is characterized by mixed findings. A study found that engagement coping strategies were associated with less psychological distress among Asian American and Latinx American college students experiencing racial-ethnic microaggressions, while disengagement coping strategies failed to show such effect.⁵ Conversely, another study found that

disengagement coping strategies were associated with reduced depression among Asian Americans who experienced racial discrimination.⁶ Perhaps both engagement and disengagement coping strategies could work as a recent study found that both strategies were effective in moderating the relationship between depression and life satisfaction among Chinese immigrants and Chinese Americans during COVID-19.³

There is no answer to which coping strategies are indisputably the best. Perhaps, identifying coping strategies which work for you, amplifying your existing strategies, and developing supplemental ones could benefit your mental health to a certain extent.³ Suggestions in previous studies include meditating, exercising, relying on your support network, obtaining validation from those who are like-minded, and distancing oneself from discrimination (e.g., focusing on study or work).^{3,5} Seeking professional support is also one of the important strategies if you are struggling to find helpful coping strategies. Practicing most of these strategies should enhance your mental health, in general, regardless of racial discrimination.

Edited by Reeba Khan & Curtis D'Hollander

References

1. Atkin AL, Tran AG. The roles of ethnic identity and metastereotype awareness in the racial discrimination-psychological adjustment link for Asian Americans at predominantly White universities. *Cultural Diversity and Ethnic Minority Psychology*. 2020 Feb 24;26(4):4998-508.
2. Romero AJ, Edwards LM, Fryberg SA, Orduña M. Resilience to discrimination stress across ethnic identity stages of development. *Journal of Applied Social Psychology*. 2014 Jan;44:1-11.
3. Litam SD, Oh S. Ethnic identity and coping strategies as moderators of COVID-19 racial discrimination experiences among Chinese Americans. *Counseling Outcome Research and Evaluation*. 2020 Sep 25:1-5.
4. Tobin DL, Holroyd KA, Reynolds RV, Wigal JK. The hierarchical factor structure of the Coping Strategies Inventory. *Cognitive therapy and research*. 1989 Aug;13(4):343-61.
5. Sanchez D, Adams WN, Arango SC, Flannigan AE. Racial-ethnic microaggressions, coping strategies, and mental health in Asian American and Latinx American college students: A mediation model. *Journal of counseling psychology*. 2018 Mar;65(2):214-225.
6. Chang J, Chen CN, Alegría M. Contextualizing social support: Pathways to help seeking in Latinos, Asian Americans, and Whites. *Journal of Social and Clinical Psychology*. 2014 Jan;33(1):1-24.



THE IMPACT OF COVID-19 ON THE MENTAL HEALTH OF INDIVIDUALS WITH ADHD

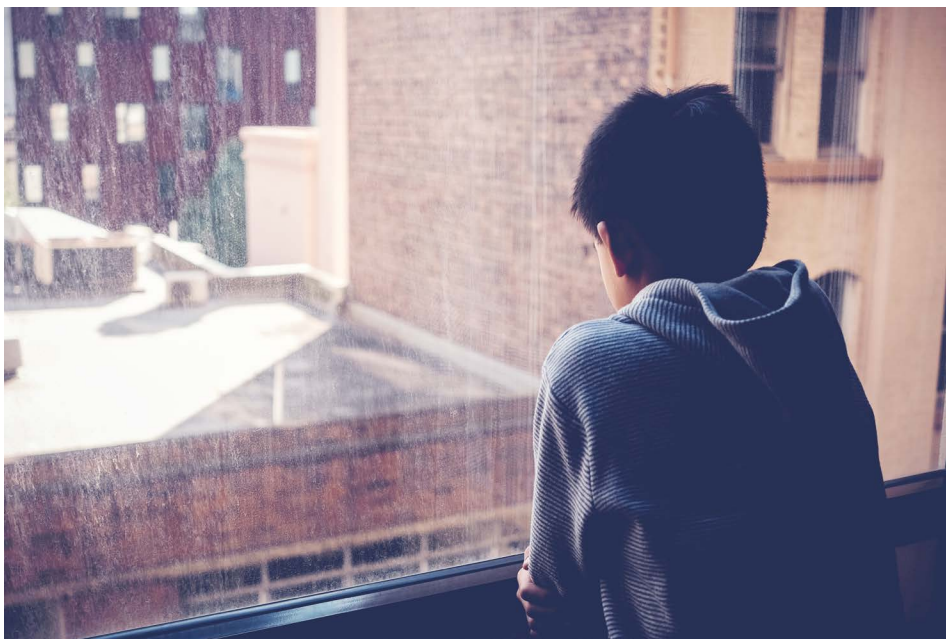
SHAMANTHA LORA

The public health burden of coronavirus disease 2019 (COVID-19) has been experienced worldwide, yet it has disproportionately affected individuals with attention deficit hyperactivity disorder (ADHD). The prevalence of ADHD in North America is estimated to be between 5.3% and 9.0%. ADHD is characterized by inattention, hyperactivity, and impulsivity,¹ and these symptoms can be exacerbated by stress and anxiety induced by a global pandemic. For example, children and adolescents with ADHD may have additional struggles with remote learning, physical distancing, and family confinement.² In response to this, the European ADHD Guidelines Group (EAGG) published a multimodal intervention approach to the assessment and management of ADHD during COVID-19.³ Although this guideline is intended to educate

primary caregivers and provide parents with appropriate behavioral strategies, it fails to provide specific information regarding evidence-based interventions targeted at mitigating the difficulties faced by students with ADHD, such as coping with chronic stress, lack of consistency, and emotion dysregulation. These difficulties can hinder the capacity of individuals with ADHD to deal with daily tasks and behaviours. Emerging studies suggest ADHD children's behaviours have markedly worsened throughout the pandemic.⁴ These findings have been conducted primarily using survey-based reports from primary caregivers. The aim of this article is to provide a critical appraisal of the effect of COVID-19 on the mental health functioning of individuals with ADHD by examining a 2021 study conducted by Dr. Rosanna Breaux and colleagues.

Breaux and colleagues found that both ADHD status and pre-COVID-19 emotional regulation (ER) abilities to have significant relevance in predicting changes in mental health.⁵ They conducted a longitudinal study examining changes in the mental health functioning of adolescents with and without ADHD at three time points. The time points that the authors investigated were pre-COVID-19, spring 2020 (during stay-at-home orders), and summer 2020 (after stay-at-home orders were lifted). Their findings indicate a significant difference between scores taken prior to COVID-19 and scores in spring 2020 and summer 2020 across all the measured dimensions. Interestingly, the findings revealed an initial increase in symptoms of inattention, hyperactivity and impulsivity observed in spring 2020 that later decreased in summer 2020 following the lifting of lockdown measures, which suggests that this population is susceptible to pandemic stressors.⁶ In addition, adolescents identified pre-COVID-19 with poor emotional regulation (ER) abilities scored higher and demonstrated, on average, more depression and anxiety symptoms at all time points. Interactive risk was assessed based on ADHD status and pre-COVID-19 ER abilities using linear mixed-effects models. Their comparative models suggested that adolescents with ADHD and poor ER abilities were at an additive risk for inattention, hyperactivity, and impulsivity symptoms. This coincides with existing findings that suggest that remote learning places increased





demands on executive functioning.⁷ Those with ADHD are under greater pressure since they are now required to learn in a more independent learning environment amid distractions and pandemic-related disruptions.

These findings set the stage for future research and guidelines on how to manage ADHD during a public health crisis. Children, adolescents, and adults with ADHD are at a disadvantage. The effects of home confinement may vary depending on the severity of ADHD combined with their environmental conditions. Unfavourable conditions at home may increase the risk of impulsive behaviour and difficulty in following instructions.⁷ Home confinement has restricted individuals' access to both personalized medical care and academic resources. Even though some studies report interruptions of social relationships, reduced physical activities, lack of structure, and an overall disruption of routine,⁸ others indicate decrease in anxiety and overall improvement due to less school-related strain and flexibility in schedules.² These inconsistent findings can be better understood when ADHD is seen as a spectrum disorder. For

instance, studies observing mood and behavioural variations in individuals based on their degree of severity distinguished that low severity degree of ADHD correlated with worsening of all dimensions yet individuals with moderate to high severity demonstrated improvement in restlessness, irritability, and other behavioural dimensions.⁹

Dr. Breaux and colleagues, however, suggest that gender influences or determinants such as socioeconomic status (SES), ethnicity, and medication

status are not significant predictors of poor mental health in adolescents with ADHD. These generalizations may be best understood when considering the limiting factors of the study. Potential selection and ascertainment bias of the study cohort only allowed for teenagers aged 15-17 years old to be included in this study. Children with ADHD who are younger than 15 may be more susceptible to effects of chronic stress whereas adolescents might demonstrate greater adaptability, greater flexibility, and greater cognitive development. Since individual ER abilities can vary, the results of this study are limited in its generalizability to using ER as a potential protective factor against environmental stressors for all individuals with ADHD.

The study may also be limited by spectrum bias due to its exclusion of ADHD participants with other comorbidities. This bias can also be explained using a predominantly white study sample and the low level of variance in family income. It has been argued that families with low SES are one of the most vulnerable to the negative effects of COVID-19.⁷





This is especially true for individuals who are suffering both financially and mentally. The study cohort did not capture ADHD adolescents from underserved communities, minorities, and other ethnicities, despite efforts to recruit from schools in a range of socioeconomic areas in the US, suggesting lower SES chose not to participate. Given this underrepresentation, it can be inferred that the psychosocial effects on adolescents would likely be more severe and include a wider distribution of symptoms than present study findings. Therefore, the true spectrum of ADHD may not have been fully captured by the findings.

Moving forward, it will be important to use multimodal interventions when addressing the emotional and

behavioural challenges of ADHD individuals. We need additional research focused on parental psychopathology, academic support at home, effectiveness of telepsychiatry, and access to technology.¹⁰ It is also important to take into consideration the need for a supportive domestic environment for individuals with ADHD. This requires engaged parents who are responsible for providing both academic and parental support during home confinement. Insights on how to best support vulnerable individuals with ADHD will guide caregivers toward a more holistic approach to care. Therefore, longitudinal studies that investigate long term consequences of pandemic conditions should continue to provide insight into the types of support individuals with ADHD need.

This will also provide policy makers with evidence-based information to determine the potential risks of pandemic restrictions, which will help caregivers build better support systems for individuals with ADHD during COVID-19 and future pandemics.

Edited by Jeffrey Lynham & Curtis D'Hollander

References

1. Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., & Rohde, L. A. (2007). The worldwide prevalence of ADHD: a systematic review and metaregression analysis. *The American journal of psychiatry*, 164(6), 942–948. <https://doi.org/10.1176/ajp.2007.164.6.942>

2. Bobo, E., Lin, L., Acquaviva, E., Caci, H., Franc, N., Gamon, L., Picot, M. C., Pupier, F., Speranza, M., Falissard, B., & Purper-Ouakil, D. (2020). Comment les enfants et adolescents avec le trouble déficit d'attention/hyperactivité (TDAH) vivent-ils le confinement durant la pandémie COVID-19 ? [How do children and adolescents with Attention Deficit Hyperactivity Disorder (ADHD) experience lockdown during the COVID-19 outbreak?]. *L'Encephale*, 46(3S), S85–S92. <https://doi.org/10.1016/j.encep.2020.05.011>
3. Cortese, S., Asherson, P., Sonuga-Barke, E., Banaschewski, T., Brandeis, D., Buitelaar, J., Coghill, D., Daley, D., Danckaerts, M., Dittmann, R. W., Doepfner, M., Ferrin, M., Hollis, C., Holtmann, M., Konofal, E., Lecendreux, M., Santosh, P., Rothenberger, A., Soutullo, C., Steinhausen, H. C., ... European ADHD Guidelines Group (2020). ADHD management during the COVID-19 pandemic: guidance from the European ADHD Guidelines Group. *The Lancet. Child & adolescent health*, 4(6), 412–414. [https://doi.org/10.1016/S2352-4642\(20\)30110-3](https://doi.org/10.1016/S2352-4642(20)30110-3).
4. Zhang, J., Shuai, L., Yu, H., Wang, Z., Qiu, M., Lu, L., Cao, X., Xia, W., Wang, Y., & Chen, R. (2020). Acute stress, behavioural symptoms and mood states among school-age children with attention-deficit/hyperactive disorder during the COVID-19 outbreak. *Asian journal of psychiatry*, 51, 102077. <https://doi.org/10.1016/j.ajp.2020.102077>
5. Breaux, R., Dvorsky, M. R., Marsh, N. P., Green, C. D., Cash, A. R., Shroff, D. M., Buchen, N., Langberg, J. M., & Becker, S. P. (2021). Prospective impact of COVID-19 on mental health functioning in adolescents with and without ADHD: protective role of emotion regulation abilities. *Journal of child psychology and psychiatry, and allied disciplines*, 10.1111/jcpp.13382. Advance online publication. <https://doi.org/10.1111/jcpp.13382>
6. Becker, S. P., Breaux, R., Cusick, C. N., Dvorsky, M. R., Marsh, N. P., Sciberras, E., & Langberg, J. M. (2020). Remote Learning During COVID-19: Examining School Practices, Service Continuation, and Difficulties for Adolescents With and Without Attention-Deficit/Hyperactivity Disorder. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 67(6), 769–777. <https://doi.org/10.1016/j.jadohealth.2020.09.002>
7. Thorell, L.B., Skoglund, C., de la Peña, A.G. et al. (2021) Parental experiences of homeschooling during the COVID-19 pandemic: differences between seven European countries and between children with and without mental health conditions. *European Child & Adolescent Psychiatry*. <https://doi.org/10.1007/s00787-020-01706-1>
8. Hai, T., Swansburg, R., MacMaster, Frank, & Lemay, J.F., (2021). Impact of COVID-19 on Educational Services in Canadian Children With Attention-Deficit/Hyperactivity Disorder. *Frontiers in Education*, 25. <https://doi.org/10.3389/feduc.2021.614181>
9. Melegari, M. G., Giallonardo, M., Sacco, R., Marcucci, L., Orecchio, S., & Bruni, O. (2021). Identifying the impact of the confinement of Covid-19 on emotional-mood and behavioural dimensions in children and adolescents with attention deficit hyperactivity disorder (ADHD). *Psychiatry research*, 296, 113692. <https://doi.org/10.1016/j.psychres.2020.113692>
10. Spencer, T., Noyes, E., & Biederman, J. (2020). Telemedicine in the Management of ADHD: Literature Review of Telemedicine in ADHD. *Journal of attention disorders*, 24(1), 3–9. <https://doi.org/10.1177/1087054719859081>



SOUTH ASIAN CANADIAN HELP-SEEKING BEHAVIOURS AND BARRIERS TO MENTAL HEALTH SERVICES

ASHLYN JAMES

More than half of the people in the South Asian community with a mental illness do not seek help.¹ Specifically, South Asian immigrants have higher levels of life stress and anxiety in relation to other Canadian populations.² Furthermore, the ongoing mental health stigma experienced by South Asian communities is linked to poorer personal wellbeing.³ These startling statistics show a need for care that is not being met for the South Asian community.

The South Asian community is growing considerably and makes up one of the largest non-European ethnic origin groups in Canada.⁴ According to the federal census, the South Asian community refers to those with ancestry that originates in South Asia, a region that includes but is not limited to the nation-states of

Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh, the Maldives, and Sri Lanka.⁴ I hope this article opens the minds of its readers and raises awareness for members within South Asian communities who face service access barriers that include personal beliefs of services, language incompatibility, culturally insensitive services, and culturally dissimilar styles of interaction.⁵

In terms of post-secondary experiences, South Asian college students have less positive attitudes towards counseling than Caucasian college students.⁶ This could be due to self-stigma, anticipated beliefs, and self-disclosure that is shown to influence help-seeking behaviours in college students from varied ethnic and racial backgrounds.⁷ Self-stigma and perceived stigmatization can be compounded by ethnic minorities'

relationships with the dominant society, other ethnic groups, and their own ethnic groups.⁸ These barriers for South Asian college students are not being addressed by universities. As a student who has worked at mental health resource centers in Canadian universities, I can attest to services being tailored to the wider university demographic, in turn overlooking the specific needs of minority students in the South Asian community.

Gender should also be considered when creating specific and accessible mental health programs. South Asian women have higher levels of distress when they have low extended family support, and men have higher levels of distress when they have a low community position and conflict within the family culture.⁹ Moreover, personal stigma and being male are negatively associated with help-seeking behaviour.¹⁰ This exemplifies that different genders face different unmet needs for service in South Asian communities and these gender differences are not acknowledged within the mental health community. This lack of knowledge in combination with service barriers is negatively affecting the South Asian community.

Mental health services are tailored to a white heteronormative patriarchal society in terms of language, advertising, accessibility, and cultural fit. Various findings and real-life examples demonstrate the implications of this reality. A 2008 Canadian study which included over 16,000 ethnic minorities found that





South Asian immigrants were less likely to use mental health services than Caucasian populations.¹¹ In addition, a 2013 telephone survey of a random sample of the South Asian community aged fifty-five and older found cultural incompatibility, negative personal attitudes about using services, administrative problems, as well as circumstantial challenges to all create barriers to accessing services.⁵

Most recently, as the COVID-19 pandemic unfolded, Canadians witnessed a disproportionate number of the black, indigenous, and people of color (BIPOC) community contracting COVID-19 due to long-standing systemic health and social inequities.¹² The South Asian community, particularly immigrants, have limited access to many of the social determinants of health. This limited access in turn increases the

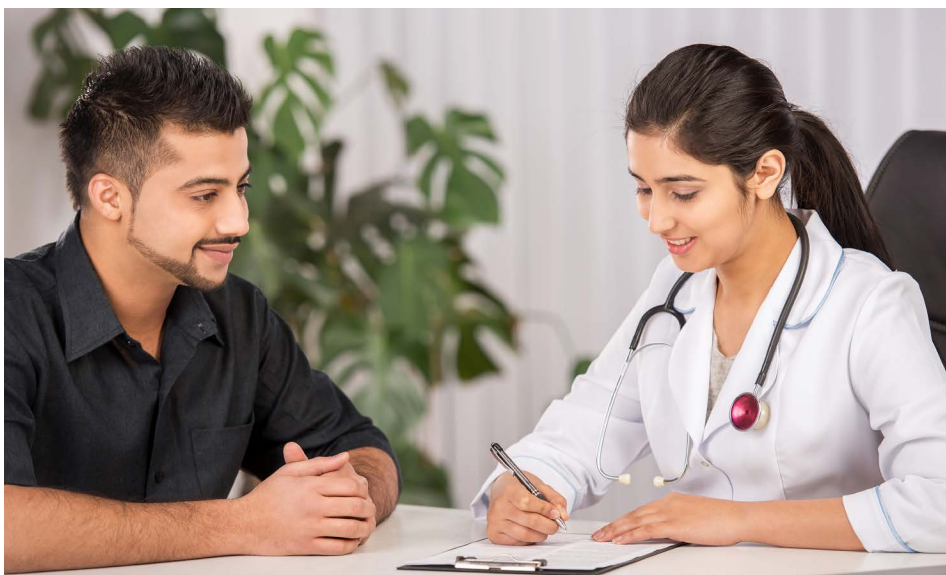
risk of not having fair opportunities for economic, physical, and emotional health.¹³ A lack of mental health resources for the South Asian community only compounds the oppression experienced.

These research trends indicate there is a need to address the inequality created by an unmet need for care exhibited by the alarming amount of South Asian community members with a mental illness not seeking help. A culturally appropriate plan of action should be developed and implemented. Firstly, a plan which aids South Asian communities in overcoming barriers related to personal attitude. Secondly, a plan to give South Asian communities better access to needed services.⁵ Fortunately, the blueprints for such a plan do exist. In 2013, the Council of Agencies Serving South Asians had their third annual Health Equity Conference where they created

a plan called Building an Effective South Asian Health Strategy in Ontario.

More broadly, policymakers should reduce service barriers affecting South Asian communities by setting policy targets, focusing on health promotion information, creating gender equality programs empowering both men and women in the South Asian community, and put in place services for cultural needs and language barriers.⁵ Unfortunately, health disparities remain unaddressed and there continues to be structural inequalities that are detrimental to the health and safety of BIPOC communities across Canada. This article allowed me to display one of many inequalities that must be addressed.

Edited by Maverick Smith and Curtis D'Hollander



References

1. Cruwys, T., & Gunaseelan, S. (2016). "Depression is who I am": Mental illness identity, stigma and wellbeing. *Journal of Affective Disorders*, 189, 36-42. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1016/j.jad.2015.09.01
2. Islam, F., Khanlou, N., & Tamim, H. (2014). South Asian populations in Canada: Migration and mental health. *BMC Psychiatry*, 14, 13.
3. Chiu M, Amartey A, Wang X, Kurdyak P. (2018). Ethnic Differences in Mental Health Status and Service Utilization: A Population-Based Study in Ontario, Canada. *The Canadian Journal of Psychiatry*. 2018;63(7):481-491. doi:10.1177/0706743717741061
4. Statistics Canada. (2007). The South Asian Community in Canada. Retrieved October 30th, 2020. http://www.statcan.gc.ca/pub/89-621-x/89-621-x2007006-eng.htm.
5. Lai, D. W. L., & Surood, S. (2013). Effect of service barriers on health status of aging south Asian immigrants in Calgary, Canada. *Health & Social Work*, 38(1), 41-50. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1093/hsw/hls065
6. Loya, F., Reddy, R., & Hinshaw, S. P. (2010). Mental illness stigma as a mediator of differences in Caucasian and south Asian college students' attitudes toward psychological counseling. *Journal of Counseling Psychology*, 57(4), 484-490. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1037/a0021113
7. Nam, S. K., Choi, S. I., Lee, J. H., Lee, M. K., Kim, A. R., & Lee, S. M. (2013). Psychological factors in college students' attitudes toward seeking professional psychological help: A meta-analysis. *Professional Psychology: Research and Practice*, 44(1), 37-45. https://doi.org/10.1037/a0029562
8. Cheng, H., Kwan, K. K., & Sevig, T. (2013). Racial and ethnic minority college students' stigma associated with seeking psychological help: Examining psychocultural correlates. *Journal of Counseling Psychology*, 60(1), 98-111. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1037/a0031169
9. Masood, N., Okazaki, S., & Takeuchi, D. T. (2009). Gender, family, and community correlates of mental health in south Asian Americans. *Cultural Diversity and Ethnic Minority Psychology*, 15(3), 265-274. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1037/a0014301
10. Arora, P. G., Metz, K., & Carlson, C. I. (2016). Attitudes toward professional psychological help seeking in south Asian students: Role of stigma and gender. *Journal of Multicultural Counseling and Development*, 44(4), 263-284. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1002/jmcd.12053
11. Tiwari, S. K., & Wang, J. (2008). Ethnic differences in mental health service use among white, Chinese, south Asian and south east Asian populations living in Canada. *Social Psychiatry and Psychiatric Epidemiology: The International Journal for Research in Social and Genetic Epidemiology and Mental Health Services*, 43(11), 866-871. doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1007/s00127-008-0373-6
12. Stokes EK, Zambrano LD, Anderson KN, et al. Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:759–765. DOI: http://dx.doi.org/10.15585/mmwr.mm6924e2external icon.
13. U.S. Department of Health and Human Services. Social Determinants of Health [online]. 2020[cited 2021 March 3]. available from https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-healthexternal icon



NEUROPLASTICITY AND MENTAL WELLBEING

USING THE ADAPTIVE QUALITY OF THE MIND TO CREATE AN UPWARD SPIRAL

MILENA BRATICEVIC, PhD

We all experience a level of worry in our lives. By the time an average person starts their day, they will experience innumerable worrying thoughts: How will I take care of my family? Will I do well at my job today? What if something comes up that I am not able to handle?, etc. According to the latest Mental Health Research Canada poll, Canadians are experiencing unprecedented mental distress due to the pandemic, with common mental disorders reaching the highest levels ever. Young adults, women, and ethnic minorities have been disproportionately affected with anxiety and depression, while suicidal ideation among young people has reached a catastrophic rate of 20%.

It seems that the constant chatter in our mind is here to stay... But is there a better way to understand the worrying mind? Can we gain a more

direct access to the mind by looking into the mechanisms of worry, thereby opening a window into a new way of thinking and being?

Neuroplasticity and the Worrying Mind

The human brain is incredibly plastic — it has a great ability to adapt and change. *Neuroplasticity* is the brain's ability to constantly create new neural connections through learning and life experiences. While some neural connections become stronger, other connections become weaker. What does this mean for our tendency to worry? It means that if we start worrying, and if we worry more each day, we will be essentially wiring our system for worry, and the state of worry will become more accessible to us.

To illustrate neuroplasticity, you can think of a path in the forest. While some paths are difficult to walk, those that have been walked many times have turned into trails. It is much easier to walk on a well-paved trail, and for this reason we typically don't bother going into the unpaved sections of the forest. Similarly, our repeating worrying thoughts become so engrained and established that the brain goes to them by default, hence the moment we wake up we start experiencing the repetitive chatter of the mind. In his book *"The Brain That Changes Itself,"* Norman Doidge explained both the positive and the negative aspects of the adaptive quality of the brain:

Neuroplasticity renders our brain not only more resourceful but also more vulnerable to outside influences. Neuroplasticity has the power to

produce more flexible but also more rigid behaviours... Ironically, some of our most stubborn habits and disorders are the products of our plasticity. Once a particular change occurs in the brain and becomes well established, it can prevent other changes from occurring. It is by understanding both the positive and negative effects of plasticity that we can truly understand the extent of human possibilities.

Becoming increasingly *aware* of the quality of our thoughts, and emotions produced by thoughts, is therefore extremely important. Once we are aware of thoughts, we can create a bit of a distance and start to observe and examine them from various angles. Is the thought true? Is it helpful in resolving the situation? How do we feel when we think this thought? How do we act? These questions are at the core of Cognitive Behavioural Therapy, which helps us connect the way we think to our behaviour.

Ultimately, the goal of examining our thoughts is to deliberately choose the ones that are going to be helpful in

resolving challenges. Since thoughts are simply representations of reality (similar to a picture from a particular angle), in order to attain a more realistic view we need to create a more comprehensive, 360-degree view of reality.

Once we are more aware of our thoughts, we can use the adaptive quality of the mind to introduce alternative thoughts and create new opportunities to feel and act in ways that are going to be beneficial for our wellbeing. Of course, this is easier said than done, and can feel almost impossible when we find ourselves on the well-paved trail of the worrying mind.

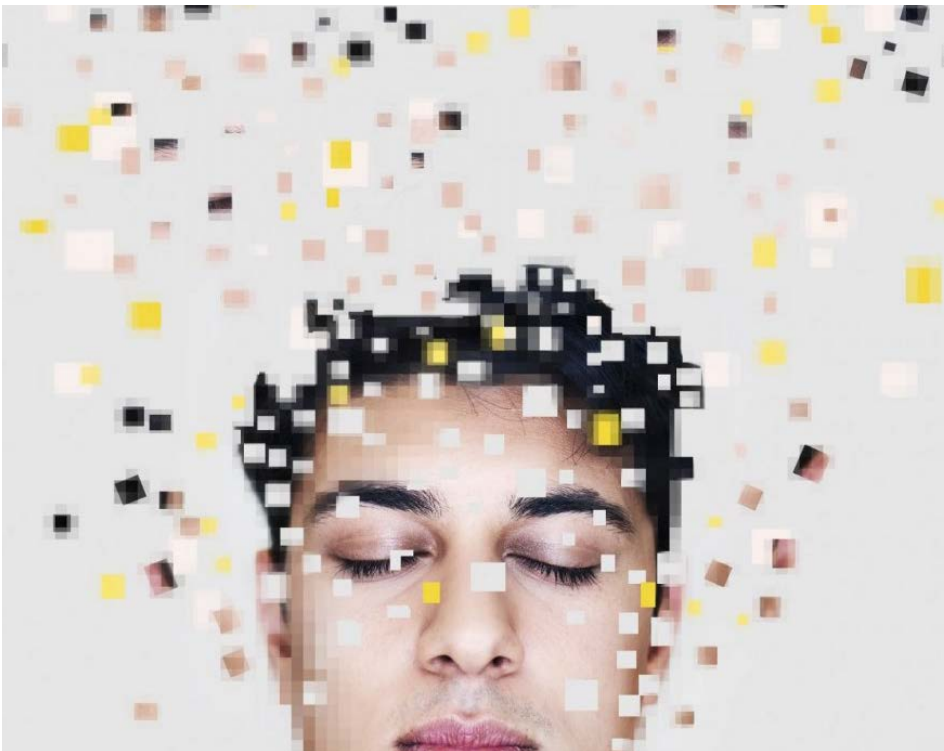
The Most Difficult Thing You'll Ever Do

When we understand neuroplasticity, we realize that the worrying mind actually follows a perfectly natural process. It's not that there is something wrong with you if you are caught in the loop of worrying thoughts — your brain is doing exactly what it is

supposed to do! If you are 40 years old and have been wiring your brain for worry for the past 20 years, those neural connections will be so strong and well-established that it will feel excruciating, and nearly impossible to stop. When people become aware of their worrying thoughts, they often become impatient with how quickly they revert back, even though they have taken a more active role as an observer of thoughts. The key here is patience and understanding that re-wiring the brain really takes time. In fact, this process will likely be *the most difficult thing you will ever do*, but also the most rewarding and freeing, as there is no greater freedom than becoming the master of your mind.

On the positive side, once the brain becomes more familiar with new, more positive, constructive, and helpful thoughts, these will become more accessible as new neural connections become strengthened and old, worrying connections become weaker. In my workshop on building mental resilience, I often see incredible shifts in people's patterns of thinking even after a couple of weeks, as they start using the adaptive ability of the mind to experience new thoughts, emotions, and behaviours. One workshop participant reflected:

I had never thought of myself as an anxious person, but I believe that 2020 has brought that out in me. I have been doing some reflection on this and realized that I have been wiring my system for worry for quite a while. I now understand that I have to mentally stop overthinking things, that I cannot control everything, and accept the situation to propel myself towards a positive outcome.





Creating Positive Outcomes

While understanding neuroplasticity and observing our thoughts can be highly beneficial to reducing the chatter in the mind, there is another step in the process towards creating more positive outcomes. This step involves finding a new focus of attention, something that can replace the worry and fear that we were used to experiencing for such a long time in the past.

Creating better outcomes involves more than 'just thinking positive.' It includes becoming more present and aware of the here and now. Shifting our attention to the present moment, to our sensations and breath, can provide the gateway into new experiences and opportunities, thereby creating new neural connections in the brain.

Once we are present in the now, we can become more creative and identify our needs, desires, passions, strengths, goals, and dreams. None of these are available to the worrying mind because it is preoccupied with

the past or the future. In the present moment we can have access to our true self, and the things that make us come alive. Ask yourself: What do you genuinely need? What are you passionate about, or what do you remember being passionate about when you were a child? What are you good at, what do people tell you your strengths are? Ideally, how do you see yourself 5 years, 10 years from now? What would you regret not doing if you were at the end of your life?

One of the best tools for creating positive outcomes is our imagination. Imagining ourselves as resilient, resourceful, joyful, and excited about life can help rewire the brain and set us up for a growth-oriented way of thinking and being. Visualizing positive outcomes can create the blueprint in the mind for making our dreams into reality. Believing that we can learn from setbacks and develop our abilities can create an upward spiral that we need in order to overcome the grip of worry and fear. In the process of healing, the first and most important step is deciding

to be better. As another workshop participant stated:

I attended your workshop last year at the request of a friend (after being let go from my job and being in a really depressed state) and the benefits were great. Since, I've been reading a lot of stories on reddit and watching a lot of Youtube videos, commenting and relating with many young people my age on a variety of topics like growing up, self-help, self-reflection, spirituality and meditation... Basically I decided to be better.

While it can seem impossible to overcome our tendency to worry, and the process of re-wiring thoughts can feel excruciating, once we start, the mind is on our side.

—

This article was previously featured on [Medium](https://medium.com).

To find out more about Milena Braticevic's work, visit: nondualperspectives.com

THE ELEMENTAL TEAM

EDITOR-IN-CHIEF

JEFFREY LYNHAM

EXECUTIVE EDITORS

CURTIS D'HOLLANDER
EMILY MASTRAGOSTINO

MAGAZINE DESIGNER

JEFFREY LYNHAM

PHOTOGRAPHER

VINEETH RAVEENDRAN

JOURNALISTS

MILENA BRATICEVIC
AMY CHAN
CURTIS D'HOLLANDER
PALAK DESAI
CLAIRE HALLETT
ASHLYN JAMES
SHAMANTHA LORA
JEFFREY LYNHAM
NORZIN SHRESTHA
AGNES WONG

EDITORS

ISAYAH ALMAN
STACEY BUTLER
AMY CHAN
ANGLIN DENT
ELIZABETH KARVASARSKI
REEBA KHAN
MAVERICK SMITH
EMMA SYRON
EMILY VECCHIARELLI

WANT TO CONTRIBUTE TO OUR NEXT ISSUE?

We are always looking for enthusiastic journalists, editors, and designers!

For more details, send an email to mentalhealth@utgsu.ca

Previous issues available at elementalmag.ca





ELEMENTAL