



BrainBuzz

camh

February 2021

In this month's *BrainBuzz*, we share updates about CAMH's research vision for the future, and new research projects and findings. Please feel free to reach out to me at any time if you have any questions or feedback.

Aristotle Voineskos
VP Research, CAMH

Looking to the Future of CAMH Research - with hope and ambition

**A message from Dr. Aristotle Voineskos, VP
Research**

It's a tremendous honour to serve as the VP, Research and Director of the Campbell Family Mental Health Research Institute. I've had the privilege of working with teams from molecular science to health systems, and with patients and families from youth to late-life. The experiences, challenges, and opportunities facing mental health and brain science research are close to my heart.



From heart to mind, I'm confident that together, we can become the world's leading organization for research in mental health and addictions. But how do we get there, especially after such a tough year that has impacted all of us in ways both similar and different?

Fortunately, with perfect timing, all CAMHers, including researchers, came together to deliver a one-of-a-kind strategic plan, the One CAMH strategic plan, just before the pandemic hit. The research-related goals challenge us to deliver on best practices, and lay the groundwork for realizing our dreams. I will unpack some of this here, in the three strategic directions of Inspire and Include for Impact.

Include: It takes diverse teams of people to do great things. This means recruiting top talent from diverse communities, and nurturing that talent. We need to equip our trainees and scientists with skill-sets that are globally competitive, from the wet-lab to the community. There is room for patients and families in all aspects of the research pipeline, helping us rethink how questions are designed, and discoveries are made. The digital world is also upon us. For successful implementation into care, inclusion is about doing research to understand for whom virtual and digital care works, helping shape our approaches to remote data collection for all.

Inspire: Open data and open science are central to our research success. If scientists around the world can use data collected by others, it enhances confidence, leads to new discoveries, and bolsters our global impact. We must support transparent and reproducible science. The data in our learning algorithms require a lens of ethics and equity, to ensure they are generalizable for those whom we serve. At the heart of both Inspire and our research vision is a new state-of-the-art research centre at Queen Street that will research within the CAMH campus. Our plan for a new facility will inspire and attract the next generation of research leaders from across the globe.

Impact: We have research excellence across the board: in brain science, clinical trials, policy, and prevention. We provide clinical care to a large and diverse population across illnesses and the lifespan. Through research including people from historically under-represented groups earlier in the research pipeline, we can use molecular science, imaging, and digital data to modernize real-world care. Through open science practices, we can share our discoveries for wider benefit for all.

No other organization has our unique combination of strengths in mental health and addictions. We are all eager for an even greater impact for those whom we serve. By integrating our strengths, and implementing our vision and plan, I'm confident that we will make ground-breaking discoveries that form the future of mental health care.

Related thread on Twitter:

<https://twitter.com/AVoineskos/status/1345024782249635841>





International Day of Women and Girls in Science

This Thursday, February 11th, we are celebrating the **International Day of Women and Girls in Science** with a focus on empowering girls to become involved in STEM (Science, Technology, Engineering, Mathematics) at an early age.

According to UN data, less than 30 per cent of researchers worldwide are women, and only around 30 per cent of all female students select STEM-related fields in higher education.

We are asking female-identifying staff at CAMH to share a message of encouragement to their younger selves. On Thursday, the CAMH Research Twitter account [@CAMHResearch](#) and the [@CAMHNews](#) Instagram Account will share these messages of empowerment, using the hashtag [#WomenInScience](#).



Some (Muslims) wonder if something is wrong with their relationship to God, or something is wrong with their character. That is what we are trying to normalize with this program, making addiction less stigmatizing by dealing with it like any other medical treatment.

- Dr. Ahmed Hassan
Psychiatrist



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Reducing Addiction Stigma in Muslim Communities

A first-of-its-kind addiction awareness outreach program that took place inside mosques significantly reduced stigma surrounding substance use disorder among Canadian Muslims. This, according to a new study, "[Inspiring Muslim Minds: Evaluating a spiritually adapted psycho-educational program on addiction to overcome stigma in Canadian Muslim communities](#)," recently published in the Community Mental Health Journal.

Previous research has indicated that Muslims living in majority Western cultures are more likely to have addiction issues than those in Muslim majority populations. Furthermore, Muslim Canadians are less likely to access mental health services than the general population.

According to study lead author CAMH psychiatrist [Dr. Ahmed Hassan](#), there are several reasons why addiction stigma is so prevalent in Muslim communities, including:

- Misconceptions or limited awareness about mental health services.
- Fears that treatment will be disclosed to employers.
- Beliefs that addiction is shameful and should not be discussed outside of families.
- Seeing addiction through a religious lens as a sin.

"I have found from my personal experience as a physician treating Muslim patients where some will say 'I'm a bad Muslim,'" said Dr. Hassan. "Some wonder if something is wrong with their relationship to God, or if something is wrong with their character. That is what we are trying to normalize with this program—making addiction less stigmatizing by dealing with it like any other medical treatment."

As part of the program, a 90-minute seminar on evidence-based addiction treatment was presented inside nine Toronto-area mosques, usually after Friday prayers. While the participating Imams were enthusiastic about bringing the seminar to their mosques, the topic was considered so stigmatizing that the participants were not told in advance what the subject matter would be.

The subsequent outreach program evaluation indicates a significant reduction in stigma among the Muslims who took part:

- Almost half of participants (47 per cent) expressed interest in learning more about addiction science.
- Nearly two-thirds (63 per cent) said they felt more motivated to help family or friends dealing with substance use disorder.

While fewer than one in five participants (18 per cent) said they would be likely to reach out for addiction services in the future if the need arose, Dr. Hassan believes that more ambitious direct outreach to Muslim communities could further reduce the stigma surrounding substance use disorder treatment, especially with older Muslims, who were less receptive to new ways of thinking about addiction than the younger cohorts who attended the seminars.

“Reaction to the seminar was very positive,” said Mohsin Syed, manager of a downtown Toronto mosque that participated in the study. “It really helped reduce stigma and many participants expressed a desire afterwards to learn more about options for addiction treatment.”

CAMH is working to place diversity, equity and inclusion at the centre of its work, including by supporting research that responds to the holistic needs of patients and adapting clinical care to incorporate a diversity of religious and cultural backgrounds. For example, through the pioneering work of CAMH scientists like [Dr. Kwame McKenzie](#) and [Dr. Farooq Naeem](#), CAMH is now an international leader in culturally-adapted cognitive behavioural therapy. CAMH also has mental health programs available to racialized communities, including the [Substance Abuse Program for African Canadian and Caribbean Youth \(SAPACCY\)](#).

Regarding his Muslim-centric addiction awareness outreach program, Dr. Hassan added: “We are not going to completely break the stigma with a few seminars, but we were very grateful to have some of the participants come up to us after the seminar and ask us privately about access to resources. And we were amazed at how receptive the Imams were. One of them has since referred some of their followers to CAMH.”

And that is certainly an encouraging sign.



First-of-its-kind CAMH study on why Young People Vape

Toronto teenager Ryan started vaping like most kids his age. A couple years ago he was hanging out with his friends, one of them brought a nicotine pod vape and he tried it out.

“That was my first experiment with vaping,” says Ryan, 17. “I thought it was fun doing tricks in the mirror and stuff.”

Two years later, he is an ex-vaper.

"I just decided it was something I didn't need in my life. I started realizing I was relying on it and it became less cool," says Ryan.

In a first-of-its-kind CAMH-led study, researchers have found significant differences in how young Canadians perceive the negative impacts of vaping compared to smoking, highlighting what the authors say is a critical need to develop unique vaping prevention and cessation public health strategies for this population.

The rate of vaping among Canadians under 30 has exploded in recent years. According to the most recent [CAMH Ontario Student Drug Use and Health Survey \(OSDUHS\)](#) released late last year, the rate of vaping among students between grades seven and 12 has more than doubled in just the past three years, from 11 per cent to 23 per cent.

In a study published in the journal [Addictive Behaviours](#), "Is vaping cessation like smoking cessation? A qualitative study exploring the responses of youth and young adults who vape e-cigarettes," the authors conclude that a better understanding of the key differences in perceived barriers to quitting vaping versus smoking, and the different motivations for wanting to quit, is needed to develop effective health policy strategies. The research is part of a larger project to study and eventually create vaping cessation programs for young Canadians under the age of 30.

Ryan is a case in point. Even though he was motivated enough to quit to attend one of the focus groups for the CAMH study, he can't pinpoint what kind of harm reduction messaging would work with other teenagers.

"I'm actually quite interested in marketing and honestly I have no idea how you would create a marketing message telling kids not to vape."

CAMH Youth Engagement Initiative Advisor Dan Davis believes that the rise in the popularity of youth vaping may be connected to the parallel spike in self-reports of higher psychological distress among teenagers in recent years.

The study authors conducted a series of focus groups among youth aged 16 to 18 and young adults between 19 and 29. All participants were self-identified consumers of e-cigarettes (most of them using nicotine pods) who expressed interest in quitting.

Among the key differences in perceived barriers to quitting e-cigarettes compared to smoking are:

- **Enjoyment of vaping flavours.** Some participants noted that they would be less inclined to want to vape if vaping products did not have the flavours

they enjoyed most, suggesting that the regulation of vaping flavours may help with cessation efforts. "I personally think that for me to quit vaping at this moment in time, I would just need, like, vapes that don't taste good. The flavour is what keeps me there," said one participant.

- **Convenience and discreetness.** The ability to vape anywhere at any time, including first thing in the morning in bed, at school or even in the shower, was another perceived barrier to quitting. "Honestly everywhere, just anytime I'm at school, at home in my room, when I'm with my friends, when I'm driving, watching a movie in a movie theatre, in a class, anything, just it's always there," said another.
- **Social acceptability of vaping.** The authors state that the kind of stark public health messaging about the health dangers of smoking that has been so effective in bringing the rate of youth smoking to historic lows may be "alienating" to young people who vape, particularly among teenagers. "They are a very informed cohort but they are suspicious about messaging, especially from government," says Dr. Chaiton, who compares it to what young people saw as inconsistent messaging about COVID, where teens were told to socially distance from their friends in the summer while bars and restaurants for adults were open. "The 'do as I say, not as I do message' doesn't work."
- **Lack of self-awareness of vaping behaviours.** While on one level being media-savvy and cynical about public health messaging about vaping, some young people who vape say they do not know some of the basics about what they are ingesting. "Honestly I don't even understand the difference between milligrams and that because JUUL it's like either three per cent or five per cent and I don't fully understand how much nicotine I'm using... I don't know, which is like kind of scary to think about, that I don't even know what I'm doing."

Part of the reason for this lack of awareness, the authors say, is that publicly available information on vaping cessation strategies for young people is virtually non-existent.

That presents a tricky challenge for public health messaging on vaping cessation, Dr. Chaiton says, because the promotion of vaping as an alternative to smoking remains a key harm reduction strategy for adults who smoke. Meanwhile, most young Canadians who vape have never smoked.

Study co-author CAMH Research Analyst Sherald Sanchez says that separate from the potential physical harm, nicotine addiction due to vaping can be detrimental to mental health.

“Dependence itself is something you have to take seriously. There is an element with nicotine dependence where there is an escalation in use that can lead to a worsening of mood problems, including anxiety and depression,” says Sanchez. “You think you are helping yourself, controlling your stress through vaping, while making it worse over time because you are lacking autonomy over your choices. The greater our ability to control our feelings and behaviours, the happier we are.”

That is part of the dilemma Malcolm, 18, is now facing. A first-year university economics student, Malcolm has tried to quit, but says with the stress of school, now is not the right time.

“I thought of quitting in the summer, but I decided there was no point because once I went back to school I would start up again,” says Malcolm. “There is too much on my plate right now for there to be other things going on in my mind that could affect my performance at school.”

Malcolm says the addictive nature of vaping crept up on him (something Dr. Chaiton referred to as “insidious”). He started to notice that when he had a busy week at school, his rate of vaping would go way up.

“I knew it was addictive but not to the extent it actually is,” says Malcolm. “You don’t realize you are getting addicted until you are way in it. If I could go back and stop, if I could take back all that money I’ve spent over the last four years, I definitely would.”



Buzz-worthy News

- SSHRC grant awarded to Sophie Soklaridis (and her collaborators across Canada) for a project aimed at addressing the intersecting barriers of gender, sex and race to academic productivity that medical scholars are experiencing during COVID-19. Of the 111 grants which were funded, Sophie's proposal was ranked #1! [@SSoklaridis](#)
- Congrats to Paul Kurdyak on his appointment as Chair in Addiction and Mental Health at UofT's Institute of Health Policy, Management and Evaluation

<https://twitter.com/ihpmeuoft/status/1349084170979602435>

- Review highlighting behavioral/neurobiological underpinnings of altered eating behaviour in patients living with psychosis
<https://twitter.com/SanjSockalingam/status/134794332144920576>
- Study on individuals with a first diagnosis of schizophrenia are 9-13 times more likely to die after 5 yrs than youth and young adults without schizophrenia
<https://twitter.com/KurdyakP/status/1351695546659069957>

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