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UNIVERSITY OF OTTAWA JOURNAL OF MEDICINE
JOURNAL MÉDICAL DE L'UNIVERSITÉ D'OTTAWA

JMUO

March 2022
Volume 11.2

SOCIAL JUSTICE IN HEALTHCARE

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ISNN: 2292-650X

UOJM
UNIVERSITY OF OTTAWA
JOURNAL OF MEDICINE

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JOURNAL MÉDICAL DE
L'UNIVERSITÉ D'OTTAWA

VOLUME 11 ISSUE 2 MARCH 2022

The student-run medical journal of the University of Ottawa

ABOUT US

UOJM is an international peer-reviewed journal led and published by the students of the Faculty of Medicine. We welcome submissions in a variety of areas in biomedical research and feature original research, review articles, news and commentaries, case reports and opinion pieces. Our articles are written in both English and French, and represent the only bilingual medical journal in Canada run by students.

Le JMUO est un journal revu, édité et publié par les étudiants de la Faculté de médecine. Nous encourageons les soumissions d'une variété de différents domaines en recherche biomédicale et publions des articles de recherche originale, des articles de revue, des nouvelles et commentaires, des rapports de cas et des pièces d'opinion. Nos articles sont écrits en français et en anglais et représentent le seul journal médical bilingue géré par les étudiants au Canada.

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Address:
University of Ottawa Journal of Medicine
Journal Médical de l'Université d'Ottawa
451 Smyth Rd
Ottawa, Ontario, Canada
K1H 8M5

Website: uojm.ca
ISSN: 2292-650X (print), 2292-6518 (online)

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Articles published in the UOJM can be digitally archived and indexed at uO Research:
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JOURNAL STAFF

University of Ottawa Journal of Medicine
Journal Médical de l'Université d'Ottawa
c/o UGME Room 2046
Roger Guindon Hall
451 Smyth Rd
Ottawa, ON K1H 8M5
Canada

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UOJM Reviewer Award

The contribution of dedicated peer reviewers is crucial for the publication of high-quality manuscripts. The UOJM editorial team is enormously thankful to all our reviewers who have volunteered to participate in the peer-review process for the UOJM. Their time and efforts have been integral to the editorial process, helping to ensure that the quality and standards that define the UOJM are upheld for every issue.

We are honouring an outstanding reviewer with the UOJM Reviewer Award. Key criteria for selection of award recipients included being readily available for peer review when invited and submitting constructive reviews in a timely manner that were demonstrative of critical appraisal. Upon careful review of all peer reviewers, we are pleased to announce **Melissa Reed** as the recipient of the UOJM Reviewer Award. Congratulations and well done, Melissa!

Managing Editor
Neel Mistry

Co-Editors in Chief
Zacharie Saint-Georges & Bryce Bogie

La contribution de pairs évaluateurs dévoués est essentielle à la publication de manuscrits de haute qualité. L'équipe éditoriale du JMUO est extrêmement reconnaissante envers tous les évaluateurs qui se sont portés volontaires pour participer au processus d'évaluation par les pairs du JMUO. Leur temps et leurs efforts font partie intégrale du processus éditorial et contribuent à garantir la qualité et les normes qui définissent le JMUO lors de chaque édition.

Nous rendons ainsi hommage à un évaluateur exceptionnel en lui décernant le Prix de l'Évaluateur du JMUO. Les principaux critères de sélection des lauréats sont les suivants : être disponible pour l'évaluation par les pairs lorsqu'il ou elle est invité à le faire et soumettre des évaluations constructives en temps opportun qui témoignent d'une évaluation critique. Après un examen attentif de tous les pairs évaluateurs, nous avons le plaisir d'annoncer que **Melissa Reed** est la lauréate du Prix de l'évaluateur du JMUO. Félicitations, Melissa!

Chef D'Édition
Neel Mistry

Co-rédacteurs en chef
Zacharie Saint-Georges & Bryce Bogie

Melissa Reed

Position: MD student (Class of 2023)

Interests: Health informatics, oncology, emergency medicine, medical education, and developing clinical predictive tools

Quote: "Scientific findings can have far-reaching impacts in every domain and the peer review process plays a vital role in this. I enjoy having the opportunity to read and provide feedback on articles submitted to UOJM to help ensure the publication of high-quality research. I have learned a lot working with the UOJM team, and I look forward to continuing to play a role in the peer review process."

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UOJM: Preface

As the second anniversary of the first confirmed COVID-19 case in Ottawa approaches, our medicine, research, and education communities continue to deal with emerging COVID-19 variants, hospitalization waves, and public health mandates. As we publish the current issue of the *University of Ottawa Journal of Medicine* (UOJM) during a time of continued uncertainty surrounding the COVID-19 pandemic, we wish to encourage Canadians to make every effort to lead by example in terms of respect, compassion, benevolence, openness, freedom of thought and belief, and inclusivity. The University of Ottawa community, and indeed the majority of the Canadian people, are committed to ending the current public health crisis.

The pandemic has brought injustices to the forefront of public health. In the current Issue **11.2: Social Justice in Healthcare,** we feature several articles that highlight gaps in the evidence regarding Canadian medicine and education that may exacerbate health inequities, differences in health that are unfair and unjust. These articles relate to current healthcare challenges faced by Canadians in vulnerable and minority groups. Each article presents practical information which can meaningfully advance the personal and professional development of all UOJM readers. We are delighted to share with our readers changes in executive and editorial teams of UOJM. We would like to welcome Bryce Bogie as the new co-Editor in Chief for the 2021-2022 cycle in replacement of Omar Dewidar.

Omar will continue to support UOJM as Consulting Editor. Bryce seeks to further develop the initiatives which were introduced to the UOJM throughout the past year, and increase the reach and impact of the UOJM within the scientific community. As of 2021, the UOJM editorial team will consist of six “Associate Editors” (replacing the former “Section Editor” roles), aligning with many other peer-reviewed scientific journals’ editorial team composition. In order to continue our efforts in indexing the UOJM in the PubMed database, we have recruited a Scholarly Indexing Director devoted to this process. Last but not least, we would like to welcome over 40 Reviewers to our editorial team from institutions across Canada.

In this preface, we would like to share with our readers our greatest accomplishments in the past year. The UOJM has further developed itself as one of Canada’s leading student-run academic journals. Our inaugural UOJM National Commentaries Contest was a huge success, with 26 commentaries published in a special issue and $4,500 awarded in prizes. Further, our annual Summer Research Scholarship Program awarded up to $5,000 to Cloudia Rodriguez and Mahmood Farhan in support of their research activities. We have also continued our UOJM Talks series, which highlights new and innovative research findings led by experts from the University of Ottawa. The most recent talk, by Dr. Tyson Graber, focused on the wastewater-based epidemiology of SARS-CoV-2. Finally, we have expanded our coverage of local conferences by publishing proceedings from the *Brain Health Research Day, the Faculty of Medicine Research Day*, *SEPH Student Research Day*, and the *Department of Psychiatry Research Day.*

To conclude, we would like to thank all members of our executive and editorial teams for their contribution. We wish to also thank our sponsors that have generously supported the UOJM through another year of pandemic. Finally, we warmly thank our readers for another successful year of biomedical knowledge dissemination.

Bryce Bogie, Omar Dewidar, and Zacharie Saint-Georges
Co-Editors in Chief
University of Ottawa Journal of Medicine

JMUO: Préface

À l'approche du deuxième anniversaire du premier cas confirmé de COVID-19 à Ottawa, nos communautés médicales, pédagogiques et de recherche continuent de faire face aux variants émergents de la COVID-19, aux vagues d'hospitalisations et aux mandats de santé publique. Alors que nous publions le numéro actuel du *Journal médical de l'Université d'Ottawa* (JMUO) pendant une période d'incertitude continuelle entourant la pandémie de la COVID-19, nous souhaitons encourager les Canadiens et Canadiennes à faire tout leur possible pour donner l'exemple en termes de respect, de compassion, de bienveillance, d'ouverture, de liberté de pensée et de croyance, et d'inclusivité. La communauté de l'Université d'Ottawa, et en fait la majorité de la population canadienne, s'est engagée à mettre fin à la crise de santé publique actuelle.

La pandémie a mis les injustices au premier plan de la santé publique. Dans l'édition **11.2: La justice sociale dans les soins de santé,** nous présentons plusieurs articles qui mettent en évidence les lacunes dans nos connaissances concernant la médecine et son enseignement au Canada qui peuvent exacerber les inégalités en matière de santé, les différences en matière de soins qui sont particulièrement injustes. Ces articles portent sur les défis actuels en matière de soins de santé auxquels sont confrontés les Canadiens et Canadiennes appartenant à des groupes vulnérables et minoritaires. Chaque article présente des informations pratiques qui peuvent faire progresser de manière significative le développement personnel et professionnel de tous les lecteurs du JMUO.

Nous sommes ravis de partager avec nos lecteurs l'évolution des équipes exécutives et éditoriales du JMUO. Nous souhaitons la bienvenue à Bryce Bogie en tant que nouveau co-rédacteur en chef du cycle 2021-2022, lequel remplace Omar Dewidar. Omar continuera à soutenir le JMUO en tant que rédacteur consultant. Quant à lui, Bryce vise à développer davantage les initiatives qui ont été introduites au JMUO au cours de la dernière année et à accroître la portée et l'impact du JMUO au sein de la communauté scientifique. À partir de 2021, l'équipe éditoriale du JMUO est composée de six « rédacteurs associés » (remplaçant les anciens rôles de « rédacteur de section »), s'alignant sur la composition de l'équipe éditoriale de nombreuses autres revues scientifiques. Afin de poursuivre nos efforts d'indexation du JMUO dans la base de données PubMed, nous avons recruté un directeur de l'indexation savante dédié à cette démarche. Enfin, nous souhaitons la bienvenue à plus de 40 examinateurs dans notre équipe éditoriale provenant d'institutions de partout au Canada.

Dans ce préface, nous aimerions partager avec nos lecteurs nos plus grandes réalisations de l'année écoulée. Le JMUO s'est développée pour devenir l'une des principales revues universitaires dirigées par des étudiants au Canada. Notre premier concours national de commentaires JMUO a été un énorme succès, avec 26 commentaires publiés dans un numéro spécial et 4 500 $ remis en prix. De plus, notre programme de bourses de recherche d'été a accordé jusqu'à 5 000 $ à Cloudia Rodriguez et Mahmood Farhan pour soutenir leurs activités de recherche. Nous avons également poursuivi notre série de séminaires JMUO, qui met en lumière les résultats de recherche novateurs menés par des experts de l'Université d'Ottawa. La conférence la plus récente, celle du Dr Tyson Graber, portait sur l'épidémiologie du SRAS-CoV-2 basée sur les eaux usées. Enfin, nous avons élargi notre couverture des conférences locales en publiant les actes de *la Journée de recherche sur la santé du cerveau*, *la Journée de recherche de la Faculté de médecine*, *la Journée de recherche étudiante de l'École d'épidémiologie et de santé publique* et *la Journée de recherche du Département de psychiatrie.*

Pour conclure, nous tenons à remercier tous les membres de nos équipes exécutives et éditoriales pour leur contribution. Nous tenons également à remercier nos commanditaires qui ont généreusement soutenu le JMUO à travers une autre année de pandémie. Enfin, nous remercions chaleureusement nos lecteurs pour une autre année réussie de diffusion de savoir et connaissances biomédicales.

Bryce Bogie, Omar Dewidar et Zacharie Saint-Georges
Co-rédacteurs en chef
Journal médical de l'Université d'Ottawa

Un cri à plus d'humanité

A cry for more humanity

Gaelle Bekolo[1,2,3,4], Salomon Fotsing[1,3,4], Kikelomo Akinbobola[5], Johanne Mathieu[6], Lolade Shipeolu[7], Kien Crosse[8]

[1] Department of Family Medicine, University of Ottawa, Ottawa, ON, Canada
[2] Department of Undergraduate Medical Education, Faculty of Medicine, University of Ottawa, Ottawa, ON, Canada
[3] Francophone Affairs, Faculty of Medicine, University of Ottawa, Ottawa, ON, Canada
[4] Institut du Savoir Montfort, Ottawa, ON, Canada
[5] Royal Columbian Hospital in New Westminster, Vancouver, BC, Canada
[6] Ophthalmology, Faculty of Medicine, University of Sherbrooke, Sherbrooke, Quebec, Canada
[7] Obstetrics and Gynecology, Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada
[8] Psychiatry, Faculty of Medicine, University of Toronto, Ottawa, ON, Canada

Date Submitted: March 22, 2021
Date Accepted: May 14, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11i2.5820

Keywords: *racism, medicine, medical education, ethnic minority*
Mots clés: *racisme, médecine, éducation médicale, minorité ethnique*

L'année 2020 a exposé plusieurs injustices longtemps restées dans l'ombre. Le 25 mai 2020, George Floyd est tué par un agent de police au Minnesota. La vidéo de ce meurtre rappelle au monde entier que le racisme systémique reste d'actualité.[1] Ainsi débute un mouvement mondialisé ayant pour objectif d'exposer et d'arrêter le racisme systémique. Parce que nous, cliniciens, médecins-chercheurs, médecins-enseignants et étudiants en médecine, ne pouvions pas rester indifférents à ces évènements, nous avons mis sur pied une équipe de recherche afin d'effectuer dans un premier temps, l'état des lieux de cette problématique en éducation médicale. C'est ainsi qu'avec le soutien de la faculté de médecine de l'université d'Ottawa, de l'Association Médicale Universitaire de l'Hôpital Montfort (AMHUM) et de la « Black Medical Students' Association of Canada » (BMSAC) nait un projet pancanadien : « L'exploration de l'expérience des étudiants noirs en médecine au Canada ». Notre étude transversale vise à investiguer si le racisme véhiculé dans notre société se reproduit au sein de nos institutions médicales. Pour y répondre, nous avons questionné des étudiants noirs en médecine au Canada sur leurs expériences académiques et cliniques. Nous avons utilisé un sondage quantitatif incluant quelques questions ouvertes permettant aux participants de raconter certains éléments de leurs vécus. Les dimensions explorées incluent la diversité et l'inclusion, le bien-être, la discrimination, l'avancement professionnel et l'enseignement de la diversité. Ce sondage a été distribué via « Survey Monkey » à l'ensemble des étudiants membres de la BMSAC. Nous sommes actuellement à l'étape d'analyse de données.

Dans leur recensement démographique et socioéconomique des étudiants inscrits aux facultés de médecine canadiennes anglophones, Khan et Al. rapportent que les étudiants noirs sont sous représentés dans ces institutions.[2] Les résultats seraient-ils semblables au sein des facultés de médecine canadiennes francophones? Au-delà de ces chiffres, qu'en est-il de leur expérience? À l'heure actuelle, elle reste très peu relatée dans la littérature. À travers notre étude, en plus de décrire leurs expériences académiques et cliniques, nous allons également rapporter s'ils sont confrontés à la discrimination. Si tel est le cas, nous souhaitons offrir des pistes de solutions permettant de remédier et de pallier ces iniquités et ainsi promouvoir un environnement de travail équitable pour tous.

La littérature académique décrit qu'aux États-Unis les étudiants noirs ont moins de chance de trouver un mentor en milieu universitaire, de compléter leurs études médicales et rapportent un bien-être moindre.[3,4] Par ailleurs, il est également rapporté que ces étudiants noirs sont aussi confrontés à des micro-agressions quotidiennes et des traitements inéquitables de la part de leurs précepteurs, de leurs pairs ainsi que du personnel administratif de leurs facultés.[5] Des études sur les étudiants racialisés minoritaires, au sein d'une institution à majorité blanche, notent que ce statut minoritaire est associé au fait de vivre de l'isolement, d'avoir le sentiment d'être « étranger » et d'avoir difficilement le support des pairs.[6,7] Dans une étude transversale sur les étudiants de première année en médecine, Hardeman et Al. rapportent que, plus un étudiant à un sentiment d'appartenance fort à l'identité noire au sein d'une université à majorité blanche, plus son bien-être est appauvri.[4] Au Canada, peu d'études abordent ces questions.

Dans une étude qualitative récente effectuée par Mpalirwa et Al., portant sur l'expérience des médecins ontariens noirs en pratique et en formation, un participant rapporte ceci : « En tant qu'étudiant en médecine, moi et d'autres étudiants noirs, nous sommes faits dire que nous devions travailler plus fort pour paraître aussi compétents que nos collègues blancs. ».[8] D'autres participants ont également rapporté que certains patients ont déjà demandé à voir « un médecin plus clair » ou encore qu'un patient ait dit : « Je ne veux pas que ce Noir prenne soin de mon enfant. ».[8] Plusieurs participants ont également indiqué qu'en milieu clinique, ils ont à de nombreuses occasions été pris pour un travailleur de l'entretien ménager ou un préposé.[8] Nous nous questionnons donc à savoir si de tels exemples sont des expériences isolées. Nous espérons que notre étude descriptive basée sur un sondage national, nous permettra de rapporter les phénomènes qui sont diffus et d'apporter des pistes de solutions durables nécessaires à la construction d'un système équitable en éducation médicale. Alors que l'équité en éducation médicale continue de se concrétiser, il est essentiel d'examiner notre humanité individuelle et collective pour ce qui a trait à nos croyances et aspirations et le rôle qu'elles jouent dans les dynamiques de pouvoir de notre société.[9] C'est alors qu'on pourra briser les cycles d'iniquité durablement et davantage valoriser la diversité.

Grâce aux initiatives en cours, le cri de George Floyd « I can't breathe» ne sera pas vain. Désormais, c'est le monde qui hurle. Selon la métaphore du philosophe Michel Serres, il hurle parce qu'il est en train d'accoucher d'une meilleure humanité.[10]

REMERCIEMENTS

Nous tenons à remercier les Affaires francophones de la Faculté de médecine de l'université d'Ottawa pour leur contribution dans la coordination de l'ensemble du processus de recherche. Nous tenons aussi à remercier l'association médicale universitaire de l'Hôpital Montfort d'Ottawa pour le financement octroyé dans le cadre de ce projet.

English

The year 2020 has exposed several injustices, which have long remained in the dark. On May 25, 2020, George Floyd was killed by a police officer in Minnesota. The video of this murder was a reminder to the world that systemic racism is still very much alive.[1] This also marked the beginning of a global movement aimed to expose and stop systemic racism. We—clinicians, researchers, educators and medical students—could not remain indifferent to these events. Therefore, we created a research team in order to assess the state of this issue in medical education as a start. With the support of the University of Ottawa's Faculty of Medicine, the "Association Médicale Universitaire de l'Hôpital Montfort" (AMHUM) and the Black Medical Students' Association of Canada (BMSAC), a pan-Canadian project was born: "Exploring the Experience of Black Medical Students in Canada". This cross-sectional study aims to investigate whether the racism present in our society is reproduced within medical education. To address it, we have surveyed the academic and clinical experiences of Black medical students. We used a quantitative online survey with embedded open-ended questions allowing participants to narrate some elements of their story. Some dimensions that were assessed include diversity and inclusion, well-being, discrimination, career advancement and diversity-responsive medical curriculum. The survey was distributed through « Survey Monkey » to student members of BSMAC. We are currently at the data analysis stage.

In their demographic and socioeconomic census on medical students attending English-speaking Canadian medical faculties, Khan et Al. note that Black students are underrepresented in those institutions.[2] Would the results be comparable in French-speaking Canadian medical faculties? Beyond these numbers, what is the experience of these students? Currently, little is known about it. In addition to describing their academic and clinical experiences through our study, we will also report if they are confronted with discrimination. If so, we then hope to determine how these inequities can be addressed and mitigated to cultivate an equitable work environment for all.

According to the academic literature, Black medical students in the United States are less likely to find a mentor in academia and to complete medical school while also reporting lower well-being.[3,4] It describes that they face daily microaggressions and unfair treatment from their preceptors, peers and faculty members.[5] Studies on racialized minority students within a White-majority University note that this minority status is associated with an inherent feeling of isolation, leaving minorities feeling like an "outsider" and having difficulty acquiring peer support.[6,7] In their cross-sectional study on first-year medical school students, Hardeman et Al. describe that the more a student identifies as Black within a university of White majority, the more his mental well being is negatively impacted.[4] In Canada, few studies that explore these issues.

In a recent qualitative study by Mpalirwa et al. regarding the experience of Black Ontario physicians in practice and training, one of the participants describes that: "As a medical student, I and other Black students were told that we had to work harder to appear as competent as our White colleagues".[8] Other participants also reported that some patients have already asked to see "a lighter doctor" and one patient has said, "I don't want this Black guy to take care of my child".[8] Many participants also expressed that, in a clinical setting, they were often mistaken for floor clerks or housekeeping.[8] We are wondering if such examples represent isolated experiences. We are hopeful that our study, being centered around a national survey, will allow us to expose this phenomenon, if ubiquitous and provide avenues for sustainable solutions needed to build an equitable system in medical education. As medical education equity continues to be put into action, it is essential to understand our individual and collective humanity in relation to its beliefs and aspirations and how it feeds into the power dynamics in our society.[9] We can then break cycles of inequity for good and fully treat diversity as wealth.

With the ongoing initiatives, George Floyd's cry "I can't breathe" will not be in vain. From now on, it is the world that is screaming. In the words of philosopher Michel Serres, the world is screaming because it is in the process of giving birth to a better humanity.[10]

ACKNOWLEDGEMENTS

We wish to thank the Francophone Affairs of the faculty of Medicine of the university of Ottawa for helping in coordinating the research process as a whole. We also wish to thank the « Association Médicale Universitaire de l'Hôpital Montfort » based in Ottawa for financing our research project.

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Confronting Canada's overdose crisis: what's the deal with decriminalization?

Rebecca Seliga[1]

[1] Faculty of Medicine, University of Ottawa, Ottawa, ON, Canada

Date Submitted: October 7, 2021
Date Accepted: October 16, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11i2.6086

Keywords: *Opioid crisis, substance use, harm reduction*

ABSTRACT

The current overdose epidemic in Canada has only been exacerbated by the COVID-19 pandemic. Deaths from opioid-related overdose are increasing, and urgent response and action are needed to save the lives of people who use drugs. The concept of 'decriminalizing drugs' is not new, but discourse around it has been increasing recently, with major urban centres calling on the Canadian government to take action. This commentary discusses the meaning of decriminalization, recent progress that has been made in Canada, and its possible implications on the lives of people who use drugs.

RÉSUMÉ

L'épidémie actuelle de surdoses au Canada n'a été exacerbée que par la pandémie de COVID-19. Les décès dûs à une surdose liée aux opioïdes augmentent, et une réponse et une action urgentes sont nécessaires pour sauver la vie des personnes qui consomment des drogues. Le concept de « décriminalisation des drogues » n'est pas nouveau, mais le discours à son sujet s'est accru récemment, les grands centres urbains demandant au gouvernement canadien d'agir. Ce commentaire traite de la signification de la décriminalisation, des progrès récents qui ont été réalisés au Canada et de ses implications possibles sur la vie des personnes qui consomment des drogues.

Amidst the global COVID-19 pandemic, Canada's own overdose crisis has endured with no end in sight. Mortality from opioid-related overdose has increased by 88% since the onset of the pandemic, in part driven by the increase in social isolation and difficulty in accessing support services for people who use drugs.[1] This crisis is affecting people across Canada, and in response, major cities such as Vancouver, Montreal, Toronto, and Ottawa have called for the federal decriminalization of drugs.[2] The call to decriminalize drug use in Canada is not a new concept, but what does this actually mean, what steps have already been taken, and how will this impact the lives of people who use drugs?

WHAT DOES IT MEAN?

The decriminalization of drugs means that personal use and possession of these substances will no longer result in criminal penalties that appear on a permanent record.[3] Production, trafficking, and sale of these substances remains a criminal offense.[3] Currently, a charge for the possession of drugs is something that permanently appears on one's criminal record. The presence of such a charge on an individual's police check can then prevent them from engaging in future education, employment, or even stable housing opportunities.[3]

Decriminalization is not the same concept as legalization. In decriminalization, there are still administrative sanctions in place that could include warnings or even fines, but these sanctions do not appear on one's criminal record and certainly do not result in incarceration.[4] Decriminalization is also different than the concept of regulation, for example, what is currently done with the production and sale of alcohol and cannabis in Canada. Regulation ensures that the substance is of good quality and is safe, whereas this is not the case in decriminalization.[5]

WHAT IS ALREADY BEING DONE?

In August 2020 amidst the drastically increasing mortality from opioid-related overdose deaths in Canada, a revision was made to Canada's Controlled Drugs and Substances Act. This revision acknowledged that criminal sanctions on simple possession have very limited effectiveness at reducing substance use, and the harms of incarceration and criminal charges are considerable.[6] It urged prosecutors to only resort to criminal prosecution in 'serious manifestations of the offence', defined as those resulting in unsafe or violent conduct, impaired driving, or those associated with substance production, trafficking, etc.

The Canadian Association of Chiefs of Police have also come out in support of decriminalization, and they have voiced concerns about the inconsistency of law enforcement surrounding possession charges in Canada.[6] They have called for a decriminalization regime wherein the onus is taken off of the individual user, though investigation and prosecution of illegal drug manufacturers and traffickers would still persist. This means that police would still be involved in enforcing drug laws, but would shift their focus to those that aim to disrupt the illicit drug supply. They suggest that resources used to pursue criminal charges could be instead used to assist people with substance use disorder (SUD) in accessing care and linking with services.[7]

Several voices in the Senate of Canada are also advocating for change. Bill S-229, the Health-Centred Approach to Substance Use Bill, had its first reading in March 2021 and a second reading in May.[8] This bill recognizes the complex interface between mental health, addictions, and homelessness, and mandates that the minister of health work to create a national decriminalization strategy that repeals federal provisions set forth in the Canada Drugs and Substances Act. In these readings, a heavy emphasis was also placed on the importance of investing more heavily into treatment options.[8]

IS IT ENOUGH?

Observational studies from Portugal and other countries where drugs have been decriminalized do show substantial improvements in drug-related outcomes.[9] Portugal's model is that of decriminalization, not legalization. Drug use is not legal, but it is not a criminal offense either. People caught with possession are not sent to jail, but instead to the Ministry of Health where they are connected with a panel of psychologists, physicians, social workers, and other support staff. When Portugal first implemented this model in 2001, deaths from drug overdose fell substantially.[10] Since decriminalization, overdose death rates in Portugal have remained significantly lower than the European Union (EU) average. In 2019, there were 6 deaths per million in Portugal, compared to 23.7 deaths per million in the rest of the EU.[10] Furthermore, there was an increase in the number of people seeking treatment for substance use disorders, and rates of HIV/AIDS have decreased.[9]

In order to be most effective, decriminalization in Canada should be paired with increased investment into treatment options and social supports. Instead of criminal penalties, administrative penalties similar to those in Portugal could be imposed that redirect people to health services. Despite this however, decriminalization alone may not go far enough in Canada, where such a toxic drug supply is rampant and our system of social supports and treatment options is not as robust.[5] It is important to note that Canada's drug supply has become increasingly toxic since the onset of the COVID pandemic, perhaps due to disruption of the usual supply, and that fentanyl and other more potent opioids are now implicated in a higher proportion of drug overdose deaths.[1,11] Fentanyl has directly contributed to 87.2% of opioid-related deaths during the pandemic, compared to 79.2% of deaths in the year prior to the pandemic.[11]

Many experts are instead calling for legalization and regulation of a safe supply.[12,13] There is ample evidence that providing people with safe access to substances improves their social functioning and retention rates in various treatment and support programs, and also reduces the use of non-prescribed substances.[14,15] This evidence suggests that safe supply programs may effectively reduce opioid-related overdose deaths by reducing exposure to a toxic and unregulated drug supply. Treatment of opioid use disorder with injectable hydromorphone used under the supervision of health professionals is evidence-based and already approved in Canada,[16] and safe supply pilot programs exist throughout the country, though access remains a major barrier.[17,18]

WHAT WILL IT ACHIEVE?

While some may argue that decriminalization is just a buzzword alone, we already know that its counterpart: criminalization, does not work.[13] Decriminalization is not the final solution to Canada's drug-related harms, but it is an important step forward and will no doubt have many positive impacts. It sends an important message to the public and has the potential to shift how drug use is viewed in society, from a legal issue to an issue of public health. It can be a push towards development and expansion of treatment methods and programs. It can allow for more open conversation between people who use drugs and their friends, families, and healthcare providers. It can make it easier for people who use drugs to achieve important milestones, including applying for stable housing and securing jobs. Ultimately, it has the potential to have a major impact on reducing stigma towards people who use drugs.

In a time where feelings of social isolation are so high, decriminalizing drugs is one way that our government can help support people living with SUDs.

ACKNOWLEDGEMENTS

I would like to thank Dr. Jeffrey Turnbull for his feedback and guidance in preparing this manuscript, and for his invaluable support and mentorship in both my personal and academic development.

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Racial discrimination, cultural processes, and mental health among Asian university students in Canada during COVID-19: a study protocol

Cloudia Rodriguez[1,2], **Ruo Ying Feng**[1], **Irene Vitoroulis**[1]

[1] School of Psychology, University of Ottawa, Ottawa, ON, Canada
[2] Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, ON, Canada

Date Submitted: July 9, 2021
Date Accepted: August 5, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11i2.6065

Keywords: *Asian discrimination, acculturation, coping*

ABSTRACT

Introduction: Since the outbreak of the coronavirus disease 2019 (COVID-19) pandemic, an increase in racial discrimination and xenophobia directed towards Asian individuals has been documented in several Western countries. The consequences of the COVID-19 pandemic have also led to increases in mental health problems among people worldwide. Individuals from Asian backgrounds are at high risk for experiencing a dual-threat, due to the added risk for racial discrimination, in addition to general life and COVID-19-specific stressors. In Canada, the largest population of first and second-generation immigrants are from Asian origins, while 74.9% of international students in Canadian universities come from Asian countries.

Aims: The goals of this study are to investigate the associations between in-person and online racial discrimination and mental health among university students from Asian backgrounds in Canada, the extent to which general coping strategies (e.g., problem-focused, emotion-focused) contribute to better mental health outcomes, and the extent to which cultural processes (i.e., acculturation, cultural identity) affect the associations between racial discrimination and mental health.

Methods and Analyses: University students from East Asian backgrounds in Canada will be asked to complete an online survey examining in-person and online racial discrimination, coping strategies, and cultural processes (i.e., acculturation, cultural identity), and mental health. Hierarchical multiple regressions will be conducted to examine the associations between racial discrimination and mental health and the moderating role of coping strategies and cultural processes.

The coronavirus disease 2019 (COVID-19) pandemic has resulted in significant declines in the physical and mental health of people worldwide, disproportionately affecting the well-being of individuals from disadvantaged backgrounds, children and youth, and university students who experienced extended school closures.[1–9] An emerging social problem that has affected individuals belonging to cultural minority groups, specifically those from Asian backgrounds, has been increased reports of racial discrimination.[10–15] Accordingly, this protocol outlines a study that will investigate the extent to which experiences of racial discrimination are associated with mental health problems among university students from East Asian backgrounds, and whether individual and cultural processes moderate their association (i.e., coping strategies, cultural identity).

The impact of actual and anticipated racial discrimination on individuals' mental health is well-documented in the literature.[16–19] Racial discrimination during the COVID-19 pandemic may represent a high-risk context for individuals from Asian backgrounds that may increase the risk for negative mental health outcomes.[20] Although evidence on this topic is still emerging, some findings support that individuals from East, South, and Southeast Asian origins experience higher rates of COVID-19-related racial discrimination compared to White and other ethnically diverse groups due to the origins of the coronavirus.[21] Moreover, other studies show that individuals experiencing COVID-19-related racial discrimination reported an increase in mental health problems.[2,22]

During the COVID-19 pandemic, people have used various strategies to cope with stressors (e.g., school closures, working from home) related to pandemic uncertainty and restrictions.[1,6] Broadly, coping can be categorized into engagement and disengagement strategies, referring to actions taken to confront or avoid stressors, respectively.[23] Within these two categories, coping goals are identified as either: problem-focused, which helps manage stressors by targeting their cause to consequently reduce the stress, or emotion-focused goals, which helps manage the emotional response to stressors.[23,24] Commonly reported coping strategies include problem-focused physical activity and emotion-focused social network connections.[1,6] Coping orientation can be specifically beneficial for dealing with experiences of racial discrimination and can therefore help mitigate their impact from inflating mental health problems.[21,25,26]

Considering the heterogeneity in the demographic and immigration characteristics among Asian student groups in Canada, it is important to address cultural factors that may affect the associations between racial discrimination, coping, and well-being. Asian Canadians who are more acculturated (i.e., socially and culturally integrated) to Canadian culture experience better mental health compared to Asian Canadians less acculturated.[27] Individuals from immigrant backgrounds who are more acculturated to Canadian society can access a wider variety of resources from both their heritage and mainstream cultures.[28–35] Additionally, a strong heritage cultural identity plays a protective role against negative outcomes (e.g., depression) in the face of racial discrimination.[36–43] Therefore, cultural processes, length of residence in Canada, and immigration status may differentially affect the associations between racial discrimination and mental health among Asian Canadians in our study.

In addition to normative university-related stressors, students from Asian backgrounds may cope with COVID-19-related stressors, such as fear of experiencing racial discrimination. As such, the purpose of the current cross-sectional study is to examine the extent to which: (1) incidents of in-person and online racial discrimination are associated with mental health problems (depression, anxiety) among East Asian university students; (2) coping strategies used by students during COVID-19 and (3) cultural processes relevant to immigration, such as acculturation orientation and cultural identity, moderate the association between racial discrimination and mental health.

We hypothesize that racial discrimination will have a negative impact on the mental health of university students from Asian backgrounds (specifically East Asian; i.e., Chinese, Japanese, and Korean backgrounds) due to media portrayals of the origin of COVID-19. We also hypothesize that students who use beneficial coping strategies, such as positive reframing, will report lower levels of depression and anxiety. We expect those who report high levels of acculturation to Canadian culture and strong heritage cultural identity to experience less racial discrimination and lower levels of depression and anxiety compared to those who are less acculturated to Canadian culture or who do not identify strongly with their heritage culture.

METHODS

Design and Setting

This study is a cross-sectional survey investigating the experiences of in-person and online racial discrimination and mental health among university students from Asian backgrounds. The survey will be implemented through Qualtrics and accessible to students through a link and/or QR code. Participants will be recruited starting September 2021 from university classes, student associations, and the participant pool. Poster advertisements will also be posted by the Culture, Diversity and Youth Development (CDYD) lab on social medias. All participants will complete the same questionnaires and provided with a list of free and low-cost psychological services and resources in case they experience emotional discomfort.

Participants will be presented with a consent form before completing the survey. Upon completion, participants may provide their email to enter a draw to win one of 20 $50 Visa gift card. We aim to reach our target sample calculated via power analysis (see below).

Participants

The survey is part of a larger study open to university students between the ages of 17-24 years old. Data for this study will be analyzed from participants who meet these requirements and who self-identify as East Asian.

Measures

Demographics

Respondents will be asked to fill out a demographic questionnaire which will include questions about age, gender, ethnic background, and living situation.[44,45] They will also be asked to provide information regarding whether they are an international student, country of birth, years lived in Canada, and household income.

Predictors

In-person racial discrimination will be evaluated with the Everyday Discrimination Scale (9 items).[46] The 9 items are rated on a 4-point Likert-type scale (0 = never, 1 = rarely, 2 = sometimes, 3 = often). A maximum score of 27 indicates a high level of everyday discrimination and, a minimum score of 0 indicates no discrimination.

Online racism will be measured with the Perceived Online Racism Scale – Very Brief (PORS-VB) (6 items).[47] Participants will rate how often they have experienced online racism in the past six months by answering six items rated on a 5-point Likert-type scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always). A maximum score of 30 indicates persistent online racism experienced and, a minimum score of 6 indicates no online racism experienced.

Outcomes

Levels of anxiety will be assessed with the Generalized Anxiety Disorder (GAD-7) scale. The seven items are scored on a 4-point Likert-type scale (0 = not at all, 1 = several days, 2 = more than half of days, 3 = nearly every day). A maximum score of 21 indicates very high anxiety symptoms and, a minimum score of 0 indicates very low/no anxiety symptoms.

Levels of depression will be assessed with the Centre for Epidemiological Studies Depression Scale (CES-D).[49] This measure asks how participants have felt in the past week with 10 items rated on a 4-point Likert-type scale (0 = rarely or none of the time (less than 1 day), 1 = some or a little of the time (1-2 days), 2 = occasionally or a moderate amount of time (3-4 days), 3 = most or all of the time (5-7 days)). A maximum score of 30 indicates very high depression symptoms and, a minimum score of 0 indicates very low or no depression symptoms.

Moderators

Three components of ethnic identity (exploration, resolution, affirmation) will be assessed using the Ethnic Identity Scale-Brief (EIS-B) (9 items).[50] This scale is composed of 9 items rated on a 4-point Likert-type scale (1 = does not describe me at all, 2 = describes me a little, 3 = describes me well, 4 = describes me very well), with 3 items assessing each component. Subscale scores range from 3 to 12, indicating lower to higher exploration, resolution, or affirmation.

The independent dimensions of heritage and mainstream culture identity will be examined to measure acculturation using the Vancouver Index of Acculturation (VIA).[51] The VIA contains 20 items rated on a 5-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = neutral/depends, 4 = agree, 5 = strongly agree) with 10 items assessing each subscale. A subscore with a mean of 5 for a subscale indicates strong heritage or mainstream culture identification.

The Coping Strategies Inventory Short Form (CSI-SF) (16 items)[23] will be used to examine 4 types of coping strategies used to handle a stressful event: problem-focused engagement, problem-focused disengagement, emotion-focused engagement, and emotion-focused disengagement. The scale has 4 items assessing each subscale. Each item is rated on a 5-point Likert-type scale (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = almost always). Subscale scores range from 4 to 20, indicating from never to often when using that coping strategy.

Biases

Non-response bias

Non-response bias represents researchers' expected error in examining a population based on a sample study, which, due to non-response, there will be certain types of respondents who are under-represented in the results.[52] The incentive to enter a draw to win a Visa gift card or to obtain ISPR points after survey completion is provided to reduce non-response.[53] Questions in our survey will be randomized and the scales used are well-validated, including reverse-scored items and an equal balance of positive and negative items.[54] We have included attention check items, such as "This is an attention check question. Please select (Very true) if you are paying attention to identify careless responses and encourage motivated responses.[55] Participants may actively skip questions which indicates that they are refusing to answer. During data cleaning, if we identify participants who skipped all the questions, we will eliminate their data.

Social desirability bias

People tend to show this bias when they would like to be viewed positively and disguise their true feelings. In survey research, this translates into managing their responses and maximizing favourability.[56] This social desirability is related to individualistic and collectivistic cultural dimensions. For example, participants from collectivistic societies, such as East Asian groups, are likely to deliver socially desirable information to avoid stigma.[56,57] We will attempt to reduce this bias with the self-administered survey format while maintaining the anonymity and confidentiality of responses outlined in the consent form.[58]

Acquiescence bias

This bias outlines the tendency to agree with questionnaire items regardless of the respondents' views.[59] Individuals from collectivistic cultures, where "saving face" and maintaining group harmony is important, and individuals from low socioeconomic backgrounds tend to show this bias.[60] We will provide participants with reverse-scored items and positive and negative items to counterbalance the questions and reduce this bias.[61,62]

Convenient and selective sample

Our sample will not be representative of the Canadian population due to sampling from the University of Ottawa alone; however, we focus on an urban-centred university and are pursuing a large sample size to reduce this bias.

Study sample size

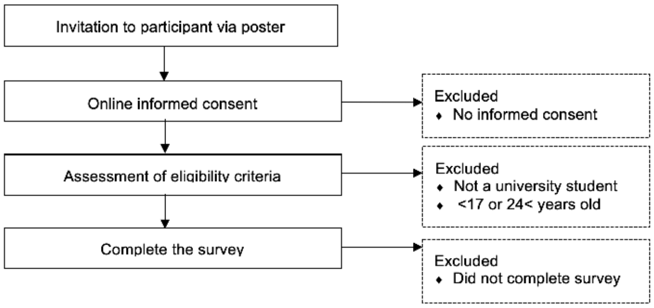
A G*Power a priori power analysis was conducted for multiple regression analysis and revealed that, for a small effect size of .02, 80% power, and an alpha level of .05, the minimum sample size would be 111 participants.[63]

Statistical methods

Upon completion of the study, all data will be screened to ensure quality while invalid responses (e.g., failing to correctly answer attention check questions, incompletion of survey) will be excluded (Fig 1). Data will be analyzed using SPSS v.28.

Upon data cleaning, we will examine data for missingness and conduct appropriate analyses depending on observed patterns of missing data. Univariate analyses will be conducted to provide descriptive statistics for the sample. For example, proportions and chi-squared tests will be used to describe the demographic characteristics of the sample (e.g., gender, income, immigrant status). Means and standard deviations (e.g., one-sample t-tests) will be used for all continuous variables (e.g., acculturation, mental health scales). Pearson's correlations will be calculated for continuous variables to examine the associations between acculturation, coping, racial discrimination, and mental health scales. Spearman's Rho will be calculated to examine correlations between categorical and continuous variables (e.g., gender, mental health). Hierarchical multiple regressions will be conducted to examine Objectives 2 and 3 (as outlined in the Introduction section). Categorical predictors will be dummy coded (e.g., age, sex, international student status, born in Canada), and continuous predictors will be mean-centerd before conducting the multiple regressions. Step 1 will include demographic characteristics, Step 2 will include in-person and online racial discrimination, Step 3 will include coping strategies and cultural processes.

Fig 1: Flow of Participants.



DISCUSSION

Key results

This study aims to investigate racial discrimination experienced by university students from East Asian backgrounds during the COVID-19 pandemic, as well as the extent to which coping strategies and cultural processes moderate the association between experienced racial discrimination and mental health. Findings from this study will help elucidate how this population has managed during the pandemic and their mental health in the Canadian context.

Limitations

Some of the limitations of the study pertain to the design and limited sample pool. Specifically, we will recruit a convenience sample of university students, therefore, the results may not be generalizable to students from Asian backgrounds across the country. Students will volunteer for this study therefore, there may be valuable information missing from students who do not choose to participate. Participants may choose to not respond to certain questions, therefore missing data may fluctuate results; however, we have taken measures to address non-response bias as explained above.

Finally, the study design is cross-sectional, which does not allow us to examine rates of racial discrimination and mental health from before the pandemic or the changes in these associations over time.

Interpretation

This study will provide insight into the experiences and the mental health of students from Asian backgrounds during the COVID-19 pandemic. Evidence from this study will examine how varying levels of acculturation to Canadian culture and coping strategies may impact participants' relationship between mental health and racial discrimination.

Generalizability

Participants attending the University of Ottawa primarily reside in the Ottawa-Gatineau area. According to the 2016 Statistics Canada census, the Ottawa-Gatineau region is the sixth largest immigrant-receiving region in Canada.[64] Although there is substantial ethnic and immigrant diversity in the population, results may not be generalizable or comparable to the largest metropolitan cities with immigrant communities, such as Toronto, Montreal, or Vancouver.[65] The results may also not be generalizable due to potential municipal- or federal-level differences in multiculturalism policies and social norms regarding immigrants.

ETHICS AND DISSEMINATION

This project has received ethics approval from the University of Ottawa Research Ethics Board (#: H-06-21-7101). Results of the study will be published in the

University of Ottawa Journal of Medicine (UOJM), and it may be submitted later for internal or external conference presentations or other journals, recognizing UOJM as the primary publisher.

CONFLICTS OF INTEREST

There are no conflicts of interest for this study.

FUNDING

Funding for this study is provided by the Seed Funding Opportunity (SFO) awarded to Irene Vitoroulis, Ph.D., by the faculty of Social Sciences at the University of Ottawa.

ACKNOWLEDGEMENTS

The author would like to thank the Culture, Diversity, Youth and Development lab for their assistance in revising and editing this narrative review, and UOJM for the Summer Scholarship.

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Racial discrimination, cultural processes, and mental health among individuals from Asian backgrounds during COVID-19: a narrative review

Cloudia Rodriguez[1,2], **Ruo Ying Feng**[1], **Zoe Campbell**[1], **Marilou Poitras**[1], **Irene Vitoroulis**[1]

[1] School of Psychology, University of Ottawa, Ottawa, ON, Canada
[2] Interdisciplinary School of Health Sciences, University of Ottawa, Ottawa, ON, Canada

Date Submitted: July 9, 2021
Date Accepted: November 8, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11iS1.5975

Keywords: *COVID-19, Asian discrimination, mental health*

ABSTRACT

Objective: We reviewed literature on racial discrimination and mental health among young adults from Asian backgrounds during COVID-19, and whether cultural processes and coping strategies can play a protective role in mental health.

Background: Since the COVID-19 outbreak in 2019, there has been an increase in discrimination and xenophobia directed towards people from Asian backgrounds. These incidents have been observed most prominently in Western countries and they can have a significant impact on the mental health of those affected.

Methods: Articles were retrieved from Google Scholar, PsycINFO, and PubMed. Research on COVID-19 was examined from 2019-onward. Articles on acculturation, coping, and discrimination were considered from 1999-2021.

Discussion: Since the emergence of the COVID-19 pandemic, there has been a decline in mental health worldwide. Xenophobic attacks and blaming for the pandemic have strongly affected the social and mental health outcomes of Asian individuals. Young adults have also experienced a massive shift in their daily routines, increasing their isolation and, thereby, affecting their mental health. Individuals' coping strategies during times of stress may play a particularly adaptive role against mental health problems, particularly for those at risk for experiencing racial discrimination.

Conclusion: Experiencing COVID-19-related racial discrimination can have implications for significant mental and physical health outcomes among Asian groups. Primary research studies are needed to address specific cultural processes, risk and protective factors that can help mitigate the impact of discrimination on mental health.

RÉSUMÉ

Objectif: Nous avons examiné la littérature sur la discrimination raciale et la santé mentale chez les jeunes adultes d'origine asiatique pendant COVID-19, et si les processus culturels et les stratégies d'adaptation peuvent jouer un rôle protecteur dans la santé mentale.

Contexte: Depuis l'épidémie de COVID-19 en 2019, il y a eu une augmentation de la discrimination et de la xénophobie à l'encontre des personnes d'origine asiatique. Ces incidents ont été observés le plus souvent dans les pays occidentaux et peuvent avoir un impact significatif sur la santé mentale des personnes touchées.
Méthodes: Les articles ont été extraits de Google Scholar, PsycINFO et PubMed. La recherche sur COVID-19 a été examinée à partir de 2019. Les articles sur l'acculturation, l'adaptation et la discrimination ont été examinés de 1999 à 2021.

Discussion: Depuis l'émergence de la pandémie de COVID-19, il y a eu un déclin de la santé mentale dans le monde. Les attaques xénophobes et le blâme pour la pandémie ont fortement affecté les résultats sociaux et de santé mentale des individus asiatiques. Les jeunes adultes ont également connu un changement massif dans leurs routines quotidiennes, augmentant leur isolement et affectant ainsi leur santé mentale. Les stratégies d'adaptation des individus pendant les périodes de stress peuvent jouer un rôle particulièrement adaptatif contre les problèmes de santé mentale, en particulier pour les personnes à risque de subir une discrimination raciale.

Conclusion: Subir une discrimination raciale liée à la COVID-19 peut avoir des conséquences sur la santé mentale et physique des groupes asiatiques. Des études de recherche primaires sont nécessaires pour aborder des processus culturels spécifiques, des facteurs de risque et de protection qui peuvent aider à atténuer l'impact de la discrimination sur la santé mentale.

The Coronavirus (COVID-19) pandemic has been negatively framed as originating from China and associated with Chinese cultural practices.[1] This has resulted in negative attitudes generalized towards individuals from Asian backgrounds and Asian cultural practices, along with an increase in xenophobia among individuals living in the United States (US).[1-3] Asian populations have been increasingly vulnerable to xenophobia and discrimination, posing a threat to their health.[2,4,5]

Racial/ethnic discrimination (henceforth referred to as discrimination) refers to covert or overt perceptions of disparate, unjust treatment of racial/ethnic groups or group members based on racial prejudice that may occur at individual, group, or institutional levels.[6,7] Social media has publicized anti-Asian attacks during COVID-19, targeting Asian groups with xenophobic messages and possibly reinforcing beliefs of racially dominant groups that immigrants pose a threat to the nation.[1,2,8] Due to the negative connotations assigned regarding the origins and worldwide impact of COVID-19, there have been multiple reports of increased anti-Asian prejudice and discrimination.[1,2,4,9-11]

According to meta-analytic findings, bias-based discrimination, including racial/ethnic and weight- or gender-based discrimination, can affect health across the lifespan with varying effect sizes observed across racial/ethnic or sexual minority groups.[12,13] Recent work has examined Canadians' experiences during the COVID-19 pandemic and individuals from Asian backgrounds' experiences of COVID-19-related discrimination, respectively. However, less is known about the mental health of young adults from Asian backgrounds during COVID-19, a population affected not only by COVID-19-related-discrimination but also changes in daily routines due to social distancing regulations.[4,9,14-16] Accordingly, this review will focus on recent literature on discrimination experiences among young adults from Asian backgrounds during the COVID-19 pandemic and the impact these experiences have had on their mental health. In addition, we will address the importance of cultural processes that might help mitigate the effects of discrimination on mental health.

METHODS

This narrative review focused on North American studies, with some additional sources from the UK. The target population was young adults aged 17-25 years old, living in Canada and the US, primarily from East Asian backgrounds

(Chinese, Korean, Japanese, Taiwanese), due to COVID-19 being portrayed in the media as originating in East Asia. The databases searched were Google Scholar, PsycINFO, and PubMed. A specific focus was placed on the literature surrounding the COVID-19 pandemic published between 2019-2021, using keywords including "Asian students" and "racial discrimination." Within the COVID-19 context, the discrimination experiences and well-being of East Asians were examined to investigate whether cultural processes were associated with perceptions of racial discrimination, coping strategies, and acculturation orientation.

DISCUSSION

Social Determinants of Mental & Physical Health

Social determinants of health include socioeconomic status (SES) and migration.[17,18] Lower SES is considered as a fundamental correlate of disease and associated with increased morbidity.[19] Groups from low SES backgrounds often lack access to resources, placing them at greater risk of disease and adverse consequences.[20] COVID-19 disproportionately affects families from low SES backgrounds who experience health and social inequalities.[21] During the COVID-19 pandemic, 38.2% of Canadians reported that their mental health deteriorated, with more pronounced effects in individuals with pre-existing mental health conditions, disabilities, and a household income of <$25,000.[22] Moreover, exposure to COVID-19 and experiencing COVID-19-related discrimination can contribute to mental distress.[23-26]

Xenophobia Towards Individuals from Asian Backgrounds

The COVID-19 pandemic is not the first public health crisis to have instigated poor, discriminatory treatment towards individuals from Asian backgrounds.[2,27] Similar patterns were also seen during the SARS epidemic in 2002-2004. Hate crimes and xenophobia towards racial/ethnic groups who are perceived as dangerous (e.g., Asians perceived as spreading a virus) can lead to 'othering'. It describes a phenomenon that is augmented during pandemics where nationwide fear of being infected causes prejudice against racial/ethnic minority groups.[2,28,29] Placing blame on groups that are different from the perpetrators' own national, ethnic, or religious identity has been seen in past pandemics, where fear of morbidity drives the search for a scapegoat.[2,3,10,27,29-31] Xenophobic comments regarding COVID-19 created an environment in which individuals from Asian backgrounds are vulnerable to discrimination and hate crimes.[2,3]

Discrimination and Health

Discrimination has a significant impact on health and well-being.[12,13,32,33] Adverse experiences during adolescence, such as discrimination or a pandemic, might predict early adult physical health, highlighting the importance of investigating the continuation of these effects in vulnerable populations from adolescence to adulthood to prevent later morbidity.[33] The COVID-19 pandemic may be particularly detrimental for East, South, and Southeast Asian individuals who experience higher rates of COVID-19-related discrimination.[34] Repeated experiences of discrimination are contributing factors to worse health outcomes and disease.[11,14,33,35-39] Individuals from Asian backgrounds during COVID-19 may, therefore, be at a heightened vulnerability of health decline.[1,2,11] Moreover, heterogeneity in characteristics among Asian populations, such as immigrant status and length of residence in Canada, may be differentially associated with mental health outcomes when facing discrimination.[16,35] Findings from American literature suggest that American- and foreign-born Asian individuals report similar levels of discrimination during COVID-19, but Asian Americans reported worse mental health outcomes than foreign-born Asians. This potentially suggests that rates of discrimination alone may not be sufficient to explain health disparities between these two populations.[4] Other processes pertinent to cultural and immigration experiences need to be considered.

Discrimination and Mental Health

Discrimination also affects mental health, with increased levels of depression, anxiety, psychological distress, and lower self-esteem reported as the most common outcomes.[13,33,38,40,41] In the current context, it is important to assess the extent of perceived discrimination among individuals from Asian backgrounds. Meta-analytic findings suggest that recent experiences of discrimination (i.e., within the past year) have a larger negative effect on mental health compared to lifetime experiences.[39] These differences may be attributed to lower salience of a discriminatory experience over time or to individual differences related to coping ability.[40] The xenophobic framing of the COVID-19 pandemic created an environment in which Asian Canadians have been subjected to more experiences of discrimination than encountered in the past, both online and in-person, which can negatively affect their well-being.[23,34,42,43]

While these observations have been made in adults, the specific experiences of university students and emerging adults in Canada have not been examined. Emerging adulthood is a period marked by developmental transitions from adolescence to young adulthood.[44,45] Moreover, for international students, this period reflects an additional layer of cultural transitions acting in conjunction with identity exploration, including ethnic identity, which can still be developing in this age group.[44-46] Ethnic identity, a topic discussed later in this paper as a possible buffer between discrimination and mental health, also needs to be considered. Because emerging adults are more likely to be in the process of establishing their identities compared to individuals later in adulthood, a developing ethnic identity may or may not be a protective factor against mental health problems when experiencing discrimination.[45,47,48] Further, international university students are not only exploring their beliefs and feelings about their ethnicity, but they have the additional adjustment, such as concerns of acculturation, facing discrimination, and loss of identity.[49,50] This population is also affected by the transition to online schooling and increased isolation during the COVID-19 pandemic.[4,22,42,51] With much of university students' lives happening online, it is important to understand the vulnerability of being exposed to discrimination, both in-person and online, which can lead to feeling a lack of safety across contexts. Specific aspects of discrimination need to be examined, such as the multiple domains where discrimination can occur (e.g., in-person versus online), taking into account their distinct characteristics and associations.[52] Online discrimination has been associated with depression and anxiety in 14- to 18-year-old Black and Latinx adolescents before the pandemic.[53] The same association has been identified in Chinese American adults and 10- to 18-year-old children/adolescents who experienced online discrimination during the pandemic.[43] Additionally, being subject to in-person discrimination is a predictor of increased online discrimination in adolescents.[54] With the co-occurrence of offline and online discrimination, examining these experiences both individually and simultaneously is necessary to provide exhaustive evidence regarding ethnic discrimination and its effects on health.[15]

Discrimination can be chronic and may, therefore, be a significant determinant of psychological distress (e.g., hopelessness, worthlessness, anxiety).[55] In a few studies examining psychosocial impacts of the COVID-19 pandemic on Asian American college students, individuals reported significantly greater experiences of discrimination compared to a sample of participants who were surveyed prior to the COVID-19 pandemic.[9,48,56] Further, physical shunning was positively associated with anxiety symptoms.[48]

The COVID-19 pandemic has exacerbated the relationship between discrimination and anxiety symptoms. Significant distress in the first few months of COVID-19 is evident, but data regarding the stability of COVID-19-related distress throughout the pandemic is lacking.[57]

Although a 'healthy immigrant effect' is often observed among recent immigrants during the first 5-10 years upon resettlement, a phenomenon that refers to lack of mental health problems despite experiencing significant adversity, this advantage tends to dissipate over time.[58-61] Explanations underlying this apparent paradox are not yet well understood. However, some researchers have found that factors, such as high cost of living, language barriers, and stigma towards mental illness, may relate to initial underreporting of symptoms and lower usage of mental health services.[62] Regardless, immigrants and refugees from East Asia and West Asia consistently report worse mental health than European Canadians.[63] The immigrant paradox is more evident in visible minority groups, including individuals from Black and Filipino backgrounds.[59-61, 64]

Evidence on the mental health of foreign- and Canadian-born Asian individuals during COVID-19 is still emerging. Irrespective of immigration status, mental health may have deteriorated similarly among these two groups. Although these similarities might also be associated with important cultural processes, such as acculturation factors, that can affect the impact of discrimination on health.

Acculturation

The process of acculturation describes the psychological and cultural accommodation to new cultural contexts, values, and experiences that occur after intercultural contact.[65,66] The bidimensional model of acculturation is characterized by two components: maintenance of heritage culture and participation in mainstream culture, which yield four acculturation orientations: integration, separation, assimilation and marginalization.[66] Heritage and mainstream cultures are perceived as orthogonal dimensions, with individuals varying in their endorsement of each culture on a continuum constructed through social interactions.[65,67-70] Integration, defined as adopting values from, and engaging with, both heritage and mainstream cultures, is supported as the most adaptive acculturation orientation and is associated with higher life satisfaction, better mental health, and less stress among Asian adolescents and adults in Canada.[66,67,71] In North America, younger age at immigration and increased length of stay predict increased mainstream acculturation among Asian immigrants. [65,72-74]

Acculturative stressors, including homesickness, financial difficulties, and learning a new language, can affect immigrants' mental and physical health.[75-77] The impact of such stressors on individual outcomes can vary based on one's acculturation orientation, immigrant generational level, degree of social support, and age.[73-75,78] For instance, Asian Americans who are less acculturated to Western values reportedly experience increased social stress, depression, and lower self-esteem, whereas those who are more acculturated to Western values report less psychological distress, suggesting better mental health outcomes.[77-82] These health disparities could be linked to associations between degree of acculturation and better awareness of and access to health resources, including cultural barriers, language barriers, or difficulties adapting to the Western health system.[75,81,83-85] A higher degree of acculturation to Western culture is associated with access to a wider variety of resources, which can be associated with an ability to cope with multiple stressors and cultural transitions.[67,85–91] In the current context, the impact of COVID-19-related discrimination might have distinctly affected Asian young adults, varying in their acculturation orientation. Individuals, who are more integrated to both mainstream and heritage cultures, may have access to resources from both that can help them cope with the negative experiences of discrimination. Hence, attention should be drawn to newcomer groups who might experience social isolation and have less access to social support and other resources.[41,69,70,73,77,88,92,93]

Furthermore, ethnic identity, a principal component of the acculturation process which focuses on the strength of group identification, is associated with cultural behaviours, values, and general attitudes that can be conducive to how individuals respond to negative experiences such as discrimination.[94–96] Yet, the role of ethnic identity in the association between discrimination and health for individuals from Asian backgrounds has yielded conflicting results.[47,97,98] On the one hand, meta-analytic and primary studies consistently indicate that a strong ethnic identity is protective for adolescents' mental health.[46,56,99–101] For example, a stronger ethnic identity has been found to buffer experiences of discrimination on mental health, such as anxiety and depression.[50,56,57,99–102] On the other hand, findings within adult populations have been more mixed, with some studies showing associations to worse mental health outcomes.[47,97,98] As university students develop at a transition from late adolescence to early adulthood, it is important to understand the interaction between acculturation orientation and ethnic identity stage and how these processes are associated with individuals' responses to social stressors that have emerged during the COVID-19 pandemic.

Coping

Individuals across Canada experienced a decline in their ability to cope with stressors and COVID-19 restrictions during the pandemic.[22,23,51,103,104] Commonly reported coping strategies include both positive and negative behaviours, such as connecting with family and friends, exercise, and alcohol use.[21,22] Social support is a particularly beneficial strategy associated with better mental health, decreased distress, less loneliness, and less depression.[105,106,106–108] During the pandemic, youth in Canada faced increased pressure and unstable social support while not always being able to rely on family.[21,103]

Fig 1: Coping strategies.

	Engagement	Disengagement
Problem-focused	Engagement-problem-focused	Disengagement-problem-focused
Emotion-focused	Engagement-emotion-focused	Disengagement-emotion-focused

Coping can be categorized into engagement and disengagement strategies, which are used to confront and avoid stressors, respectively.[109] Coping goals can be further defined as problem-focused, targeting the cause of stressors, or emotion-focused, managing the emotional response to stressors (Fig. 1).[109,110] Coping strategies have been shown to vary by gender, context, cultural values, and acculturation level.[39,111–117] Individuals from Asian backgrounds who are more acculturated to mainstream Western culture tend to use confrontation, an engagement problem-focused coping strategy that is more normative of assertive North American cultural values.[36,38,57,101,111,118–120] In contrast, Asian individuals who are less acculturated to mainstream Western culture, report using passive or emotion-focused coping strategies, such as emotional self-control and forbearance (i.e., minimizing problems to avoid burdening others), which are more aligned with their heritage cultural values.[57,111,114,115,121–123] Similarly, Asian university students' coping strategies may vary depending on their degree of acculturation to heritage and mainstream cultures. Although passive coping strategies may be associated with depression symptoms among university students in the general population, for less acculturated or foreign-born Asian students, they may be beneficial when encountering certain situations.[39,115,116,124,125] For example, confrontation, as a problem-solving coping strategy, is suggested to be generally beneficial but is often not used in incidents of racism, especially since these occurrences often include a public social status imbalance.[120]

Asian culture historically focuses on forbearance and other emotion-focused strategies to reduce the impacts of discrimination, compared to the engagement-focused problem-solving coping strategies observed in North American culture.[39,57,93,111] For Asian young adults, forbearance has been reported to negatively moderate the relationship between discrimination and mental health, reducing mental health problems associated with experiences of discrimination.[112] Furthermore, increased social support might mitigate psychological symptoms when facing discrimination, especially in the COVID-19 context.[38,112,113,122,126] Social support from co-ethnic group members can help individuals deal with experiences of discrimination and promote coping strategies through socialization processes.[122,127] The COVID-19 pandemic has presented a multitude of challenges including, discrimination, changes to routines, and other life stressors. Therefore, the efficacy of coping strategies applied to manage each of these challenges may be distinct for specific stressors.[128]

CONCLUSION

The COVID-19 pandemic has negatively affected the mental health of all populations.[129] The mental health issues arising due to COVID-19 have been shown to disproportionately affect individuals from cultural minority groups, low SES backgrounds, and those who are systematically oppressed. Individuals from Asian backgrounds are one such group who have the added threat of vulnerability to stigma, discrimination, and violence due to the othering that has occurred during COVID-19. Asian young adults may be managing a multitude of stressors, such as acculturative stress, exploring ethnic identity, changes in school routines, and separation from family. During the pandemic, individuals from Asian backgrounds experience discrimination and report mental health problems, but only a few studies examine how they have coped. A cultural lens can be applied to examine the coping strategies and the cultural processes, negatively moderating the relationship between discrimination and mental health problems.

While substantial rapid research has been conducted on youth mental health, the impact of COVID-19-related discrimination experienced by Asian young adults is limited. As responses to the global pandemic may vary greatly on an individual and political level, generalizing findings across Western countries and different Asian populations may not sufficiently capture the experiences of Asian groups in Canada today.[130–132] Additionally, most studies have focused on the first few months of the COVID-19 pandemic. Evidently, the association between discrimination and correlates, such as health, acculturation, and coping during COVID-19, is complex and needs to be evaluated holistically. Future research would benefit from investigating the mental health of Asian youth in the Western context, who are having to manage the accumulating factors of both parts of their identity. Furthermore, research into the long-term effects of COVID-19 would be beneficial to guide recommendations to support populations whose health has declined due to COVID-19.

ACKNOWLEDGEMENTS

The author would like to thank the University of Ottawa Journal of Medicine for the Summer Research Assistantship

Award.

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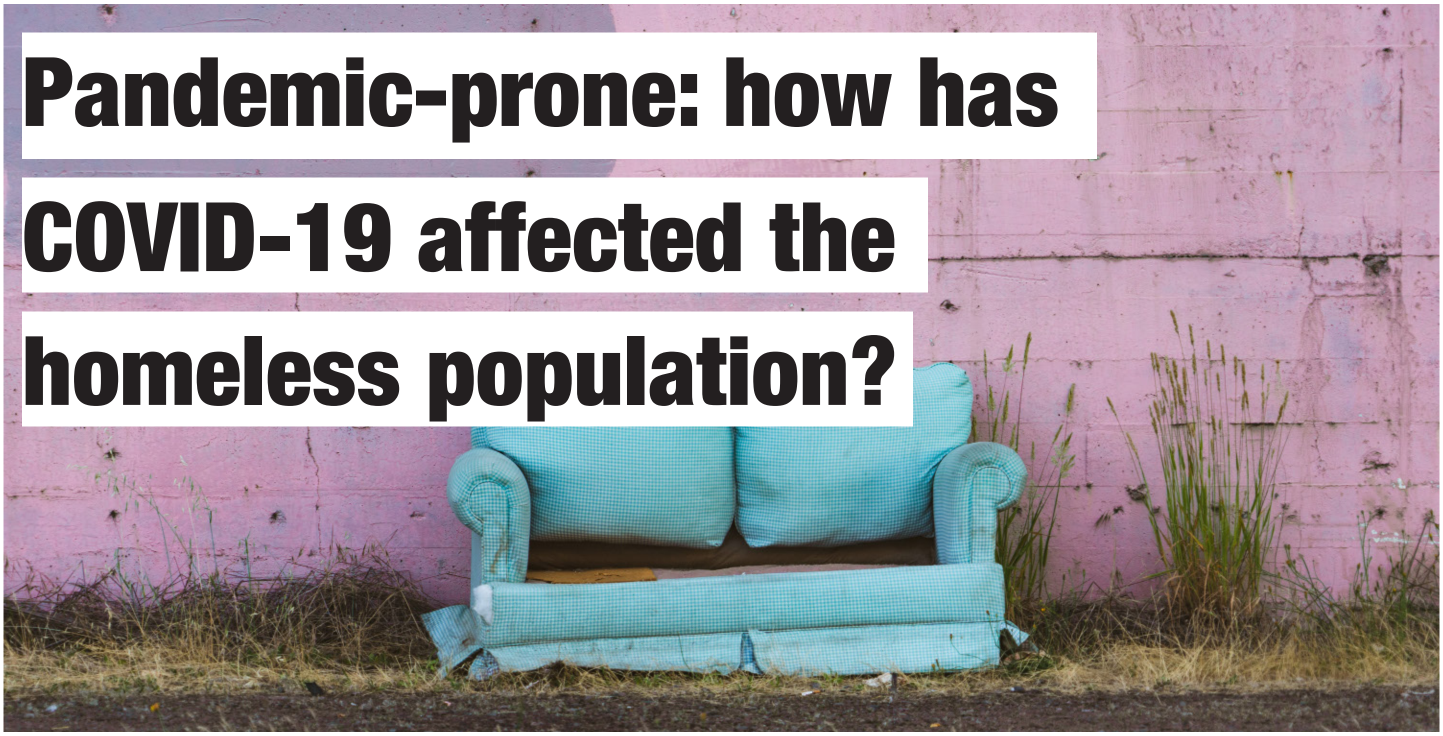
Pandemic-prone: how has COVID-19 affected the homeless population?



Neel Mistry[1]

[1]Faculty of Medicine, University of Ottawa, Ottawa, ON, Canada

Date Submitted: June 7, 2021
Date Accepted: September 1, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11i2.5957

Keywords: Homelessness, *COVID-19, health risks*

ABSTRACT

Homelessness is defined by a lack of stable and permanent housing. Homeless shelters serve as epicentres of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission, given shared living spaces, lack of physical distancing and inadequate access to healthcare resources. Individuals experiencing homelessness are not only inherently at greater risk of contracting COVID-19, but they are also more likely to engage in unsafe substance use and high-risk sex work, further augmenting this risk. This paper aims to explore the unique impact of COVID-19 on individuals experiencing homelessness and changes that should be implemented to mitigate these challenges.

RÉSUMÉ

Le problème des sans-abris est défini par un manque de logement stable et permanent. Les refuges pour sans-abri servent d'épicentres de la transmission du coronavirus du syndrome respiratoire aigu sévère 2 (SRAS-CoV-2), compte tenu des espaces de vie partagées, du manque de distanciation physique et d'un accès inadéquat aux ressources de santé. Les personnes sans domicile fixe sont non seulement intrinsèquement plus à risque de contracter la COVID-19, mais elles sont également plus susceptibles de consommer des substances dangereuses et de se prostituer à haut risque, ce qui augmente encore ce risque. Cet article vise à explorer l'impact unique de COVID-19 sur les personnes sans domicile fixe et les changements qui devraient être mis en œuvre pour atténuer ces défis.

Infectious disease outbreaks often shed light on longstanding disparities within healthcare systems. This was illustrated during the COVID-19 pandemic, where individuals experiencing homelessness were disproportionately affected compared to the general public.[1,2] According to the Canadian Mental Health Association (CMHA), homelessness refers to a lack of stable, permanent, and appropriate housing exacerbated by factors such as low income or chronic illness.[3] Homeless shelters serve as epicentres of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission, given shared living spaces and lack of access to healthcare resources.[2] These individuals are not only at a greater risk of contracting COVID-19, but they possess several social and health adversities. This paper explores the unique consequences of COVID-19 on individuals experiencing homelessness, the underlying challenges, and the implementation of changes to help reduce viral transmission.

HOW HAS COVID-19 AFFECTED THE HOMELESS POPULATION?

Individuals experiencing homelessness are inherently disadvantaged by the environment they inhabit. A large proportion of homeless persons live in underprivileged settings conducive to illness. Of the 200,000 Canadians affected by homelessness, 65% permanently reside in emergency shelters.[4] Congregate settings, such as shelters, encampments, and abandoned buildings, have limited access to standard hygiene and sanitization facilities, including poor ventilation and lack of physical distancing between individuals.[1] When combined with infrequent health and social services, this augments the risk of SARS-CoV-2 transmission.

Individuals experiencing homelessness are more likely to have risk factors that make them vulnerable to COVID-19 than the general population. An increasing number of persons, who are homeless. are older than 65 years of age and have numerous comorbidities (i.e., cancer, chronic kidney disease, respiratory illness, diabetes, etc.).[5-7] The presence of underlying disease not only aggravates their risk of contracting COVID-19 due to their weakened immune system, but it also leads to poorer clinical outcomes if they were to contract the virus.[7] According to researchers at the University of California, Los Angeles (UCLA), those homeless persons were 30% more likely to die from COVID-19 than the general population.[8] It is evident that homelessness results in unique challenges that may amplify the effect of COVID-19. For instance, homeless persons are more likely to engage in substance abuse and unsafe sex work, putting them at a high risk of contracting the virus through the exchange of blood or bodily fluids.[9]

Individuals experiencing homelessness encounter a lack of stability and tend to have more transient housing, making it difficult to follow them and provide effective patient care. Infrequent access to healthcare resources leads to delayed management of preventable illnesses, including COVID-19. The pandemic has made healthcare services more difficult to access. For instance, many primary care services are available via telemedicine which individuals experiencing homelessness may struggle to access.[10] This inherently puts homeless persons at a disadvantage of receiving timely and effective medical care.

WHAT SPECIAL CHALLENGES ARISE IN MANAGING COVID-POSITIVE INDIVIDUALS?

Despite efforts to resolve, challenges exist in the management of homeless persons with COVID-19. First, individuals experiencing homelessness are more likely to experience mental illness compared to those with stable housing. The CMHA estimates that between 25-50% of homeless persons are living with a mental condition.[11] This may make them less apt to seek medical care and, in return, may make it difficult for clinicians to provide safe and appropriate intervention. Similarly, individuals experiencing homelessness may be unable to self-isolate following confirmed or suspected COVID-19. In many U.S. hospitals, a self-quarantine screening tool has been implemented to identify whether homeless persons can safely return to emergency shelters without compromising their health or the health of others.[12] Community outbreaks in emergency shelters resulting in the rapid increase in COVID-19 could overwhelm the healthcare system. Inadequate personal protective equipment (PPE) and lack of spacing limit the availability of healthcare services in proportion to the growing needs of homeless persons. These individuals are also challenged by limited access to real-time, evidence-based public health information, and acquiring proof of vaccination, or acquiring a vaccine passport for that matter.

This can be overcome by collaboration at the municipal, provincial, and federal levels to ensure that the needs of homeless persons are prioritized, including providing a PPE kit and distributing up-to-date infographics to those residing in emergency shelters and elsewhere. Without efforts to resolve, these factors may impede timely screening and management in this high-risk population.

WHAT CHANGES CAN BE MADE TO REDUCE THE SPREAD OF COVID-19?

Changes must be made on all levels to combat the disparaging effect of COVID-19 on individuals experiencing homelessness. At the structural level, healthcare professionals (HCPs) must advocate for priority testing for vulnerable persons. While work on this front is currently underway, cities like Ottawa are still struggling to provide rapid testing for the homeless.[10] Dr. Jeff Turnbull, medical director for Ottawa Inner City Health, notes that homeless persons feel incapable of doing anything within their means to alleviate viral transmission.[10] Priority testing would allow early intervention to take place, including organizing adequate living arrangements in hotels and motels for those who test positive for COVID-19. In addition to frequent screening, individuals experiencing homelessness should be prioritized for vaccination. In December 2020, Ontario shortlisted a select group of high-risk populations, notably those in long-term care homes, retirement homes, and frontline healthcare workers, for phase 1 of vaccination.[13] It is unfortunate that individuals without stable housing, who are known to be at high risk for COVID-19, were initially overlooked and included in the priority list after much thought and deliberation. Given that homeless persons generate high costs for the healthcare system, it is prudent to offer them priority medical services before hospitalization is required.[14-16] In May 2021, vaccination among individuals experiencing homelessness was halted due to outbreaks in emergency shelters and a lack of supply.[16] The provincial government must do whatever it can to expedite the vaccination process for this marginalized group as delaying care will only overwhelm the healthcare system in the long run.

With more individuals turning to emergency shelters to seek refuge from intimate partner violence, significant crowding has started to occur in these settings. Currently, a growing number of homeless persons who test positive for COVID-19 are hesitant to return to shelters for fear that they will spread the virus.[10] The same is true among those afraid to move to the shelter out of fear of contracting the virus. People experiencing homelessness often reside in communal living spaces with limited isolation facilities. To prevent outbreaks in congregate settings, adequate physical distancing must be achieved, in line with public health guidelines. This should be done by opening new shelter spaces and increasing the spacing between beds. In San Francisco, homeless individuals, who tested positive for COVID-19, were told to self-isolate in repurposed hotels with adequate support and monitoring.[17] The results were remarkable; 81% of patients completed their quarantine while only 4% required hospitalization for subsequent complications, contributing to a lower transmission rate.[15] A similar approach should be adopted in Canada, although it would require an unwavering commitment to increased funding and active lobbying among clinicians.

At the institutional level, HCPs must communicate and collaborate with all stakeholders involved in patient care. This includes: implementing a transitional support program that screens for homelessness during an assessment, identifying a patient's living conditions, following up with the shelter to verify if there is a capacity for safe isolation practices before discharge, involving other care providers as needed (i.e., caseworker, community outreach team, social worker, addiction services), and constantly communicating with public health units. At the individual level, HCPs must educate the public about the myths and realities of COVID-19. In October 2020, Dr. Naheed Dosani, a palliative care physician and founder of Palliative Education and Care for the Homeless (PEACH), took to TikTok to educate youth about the importance of wearing masks, hand-washing, and physical distancing.[18,19] By informing individuals of all ages about the dangers of COVID-19, precautionary measures can be taken to prevent the spread of SARS-CoV-2 into the community and subsequently to homeless persons. Medical professionals have a moral duty to share scientific evidence and counter misinformation in the media. We must all work together to achieve this shared goal.

CONCLUSION

Housing is a major social determinant of health that significantly affects one's well-being. Before the pandemic, individuals experiencing homelessness were disproportionately affected by a lack of access to healthcare services. The COVID-19 pandemic has only made this situation worse as homeless persons are forced to share living space. Under these conditions, homeless persons are more likely to be infected by as well as suffer serious complications from SARS-CoV-2 than the general population. As leaders of the healthcare system, medical professionals must advocate on behalf of marginalized groups. At the structural level, priority testing and vaccination, along with increased shelter space, should be made available for the homeless. Hospitals must institute a transitional support program that includes screening for poverty and communicating with shelters to ensure safe isolation practices before discharge. At the individual level, healthcare providers must continue to educate the public about preventative measures to overcome COVID-19. Change, on all levels, must occur to tackle the disproportionate effect of COVID-19 on the homeless population. The COVID-19 pandemic has highlighted disparities in access to healthcare for many marginalized groups, including those experiencing homelessness. Policymakers must respond to future healthcare crises by prioritizing the needs of those with unstable housing before shifting their response to the general population.

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Reporting and analysis of sex and gender in transitions of care for older adults: a methods study

Hanbyoul Park[1], **Omar Dewidar**[2,3], **Elizabeth Tanjong-Ghogomu**[3], **Vivian Welch**[2,3]

[1] Translational Molecular Medicine, University of Ottawa, Ottawa, ON, Canada
[2] School of Epidemiology and Public Health, University of Ottawa, Ottawa, ON, Canada
[3] Bruyère Research Institute, Ottawa, ON, Canada

Date Submitted: June 13, 2021
Date Accepted: August 23, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11i2.5945

Keywords: *Elderly care, transitional care, health determinants*

ABSTRACT

Objectives: Sex and gender-based analysis may improve understanding of transitions from long-term care to community or health services. Our study aims to assess how sex or gender was reported and analyzed in studies about care transitions for older adults.

Methods: We identified longitudinal studies from a 2017 scoping review on factors affecting care transitions of older adults (participants 60 years and older) and assessed transitions from long-term care to community or health services. We used a pretested coding sheet to assess the reporting of sex or gender in 5 sections of the studies: title and abstract, introduction, methods, results, and discussion.

Results: We included 20 longitudinal studies conducted in 3 countries (United States, Germany, and Finland) with the study durations ranging from less than 1 year to 10 years. Almost all of the studies reported a sex distribution of the sample (18/20; 90%). Sex or gender was discussed in the background and rationale by three out of 20 studies (15%). Twelve studies (60%; 12/20) planned to control for sex or gender in their statistical analysis. Association of sex with outcomes was reported by 45% (9/20) and 3 studies (15%; 3/20) provided disaggregated data on sex or gender.

Conclusion: Almost half of the studies assessing transitions from long-term care to community or health services did not control for sex or gender in their statistical analysis. This may be a missed opportunity for understanding potential sex or gender differences in the transitions in care for older adults.

There has been a growing recognition in the importance of integrating sex and gender in health research to better understand biological and sociological differences in patterns of health conditions and their management.[1] Sex is defined as the biological aspect of being male or female, while gender constitutes the social roles that individuals hold in society.[2] . Sex and gender are integrally related; thus research needs to consider sex, gender and intersecting identities.[2]

Globally, research funders require that research analyzes sex and gender considerations, including the National Institutes of Health in the USA, the Canadian Institutes of Health Research (CIHR), and the European Commission.[1,3,4] For example, the CIHR expect researchers to integrate sex and gender into research by following Sex and Gender research guidelines, such as Gender-Based Analysis Plus (GBA+), an analytic tool to assess if intersecting identity factors, including sex and gender, could impact policies, programs, and services.[5] Health Canada's Sex and Gender 2017-2020 Action plan aimed to facilitate consideration of sex and gender in all health research and policies by promoting Sex and Gender-based Analysis (SGBA).[6] In addition, global efforts are in place by the World Health Organization (WHO) to promote the consideration of sex and gender in guideline development. In their latest guideline development handbook,[7] the WHO recommends that researchers include disaggregated data on sex and gender because they influence the uptake of health services and health outcomes. Furthermore, the Cochrane handbook for systematic reviews recommends using the PROGRESS (Place of residence, Race, Occupation, Gender/Sex, Education, Social Capital, Socioeconomic Status) framework for health equity analysis in systematic reviews.[8,9]

There are known differences between men and women when transitioning to or from institutional long-term care (LTC) facilities that provide medical care and living assistance for dependent individuals.[10,11] Transitions are defined as the care a patient receives as they move from one care setting to another.[12] Older adults in LTC experience many transitions, including LTC facility to the community, LTC facility to health services (rehabilitation, hospital, ED use, first acute care use), and health services to LTC facility. Lack of family support for women in LTC has been associated with a higher incidence of discharge to home or community compared to men.[10] There is no clear linear relationship between sex and the proportion of being hospitalised to long-term care. Investigating the role of sex and gender in LTC hospitalizations is important to develop person-tailored interventions and to optimise care.[13] The relationship between sex or gender and health is complex and intersects with other drivers of inequities, discrimination, marginalization and social exclusion. The WHO categorized this relationship in three categories, including the interaction of sex and gender with other determinants of health, health behaviors, and the health system's response to gender.[14]

Proper integration of sex and gender in research can contribute to a better understanding of the relationship between LTC transitions and sex and gender. The objective of this study is to assess the reporting and analysis of sex and gender in longitudinal cohort studies of long term care transitions.

METHODS

Study Selection

Studies that evaluate transitions from LTCs to the community were identified from a scoping review summarizing the literature on the transition from LTCs to the community.[12] A scoping review was identified from an evidence gap map of systematic reviews and studies which identified all relevant studies that met our interests. Evidence gap map is "a systematic search of a broad field to identify gaps in knowledge and/or future research needs that presents results in a user-friendly format".[15] For example, Welch's 2021 evidence gap included studies and reviews related to the effectiveness of home health services for older adults and assessed sex and gender as health inequity outcomes.[16] The scoping review included 36 studies of various study designs: cross-sectional, quasi-experimental controlled trials, randomized control trials, case-control, and quality studies. The authors conducted a comprehensive search of six databases (SCOPUS, PubMed, CINAHL, PsychInfo, Embase and Web of Science) to identify relevant studies. We evaluated the longitudinal cohort studies included in the review as they are the most appropriate for assessing long-term effects in subgroups.[17]

We included studies that involved participants 60 years and older as transitions in care for younger adults are often related to individuals with disabilities.[18] We selected studies that reported any transition of care for older adults as an outcome which includes long-term care, community, acute care, and rehabilitation.

Data Extraction

A pretested coding sheet was used to collect characteristics of studies, their analyses and reporting of how sex gender was considered. We developed a data collection form based on the Sex and Gender Equity in Research (SAGER) guidelines and previous studies assessing sex and gender.[19-21] Data was collected independently and in duplicate (by AP and OD). Conflicts were resolved through discussion. We recognize that sex and gender are sometimes used interchangeably or incorrectly. Even though sex and gender are independent entities, they may be interrelated. Therefore we use the term 'sex or gender' in this article to refer to 'sex and/or gender' or 'sex and gender', where the slash indicates that sex and gender are distinctly defined but may be associated.[22-27] Our focus is on whether sex or gender was considered in analysis and reporting, thus we assessed reporting of either sex or gender for each item below. We assessed if articles identified sex or gender accordingly:

1. *Title and abstract*: Was sex or gender mentioned?
2. *Introduction and rationale:* Were sex or gender issues discussed?
3. *Methods:*
    a. Did the authors plan to control or adjust for sex or gender in their statistical model? Adjusting for sex or gender was defined as including sex or gender as a covariate in the statistical model.[28].
    b. Did the authors explicitly plan to report the size of association for sex or gender with outcomes?
4. *Results:*
    a. Did the authors report the proportion of male or female participants?
    b. Did the authors report the size of association for sex or gender with outcomes?
    c. Did the authors report the outcome data disaggregated by sex or gender?
5. *Discussion:* Did the authors discuss sex or gender issues related to their research?

We also collected the measures of association between sex on any transition of care for older adults.

RESULTS

Search Results

Out of 36 articles identified from the scoping review, 16 studies were excluded for not meeting our eligibility criteria. Fourteen studies were not longitudinal studies and, two studies included participants younger than 60 years.

Description of Sample

As shown in Table 1, the 20 included studies were conducted in 3 countries: Germany, Finland, and the United States, with 18 studies (90%, n=20) conducted in the United States. The duration of the studies varied from less than one year to 10 years long. The most common transition type assessed in the studies was a discharge from a nursing home to the community. Fourteen out of twenty (70%) studies included more female participants than male participants. Patient information was primarily collected from LTC institutions (12/20 studies) and population databases (i.e. national longitudinal survey) (4/20 studies). Health service (2/20 studies) and insurance databases (2/20 studies) were also utilized.

As shown in Table 2, five out of 20 studies reported the association of sex or gender transition of care for older adults from LTC to home or community. Five out of 20 studies included other outcomes, such as the likelihood of transitioning from LTC to living alone.

Reporting of Sex or gender in included studies

Title/Abstract and Introduction section

As shown in Table 3, four studies (20%, n=20) mentioned sex or gender in the title and abstract and, three studies (15%, n=20) discussed sex or gender issue in the introduction. For example, Mudrazija et al. included "gender differences" in the title while discussing the need for studies to consider how sex or gender is linked to LTC transitions as this may be an important factor.[10]

Methods section

Twelve studies (60%, 12/20) planned to control for sex or gender in analysis. Of those, nine studies (9/12) planned to report a measure of association for sex or gender with outcomes of interest and, three studies planned to control for sex or gender (3/12). The remaining eight studies (40%, 8/20) did not report methods to control for sex or gender or report a measure of association of sex or gender with outcomes. For example, Mudrazija et al. used gender as the main predictor variable in their analytic model, along with race, age, and education.[10]

Results section

The majority of the studies (90%, 18/20) reported the distribution of the sample by sex; 13 studies only reported the proportion of females, and 5 studies reported the proportion of both females and males. All of the studies that planned to control and report measures of association for sex or gender with outcomes of interest, reported these analyses as planned. Eight studies (40%, 8/20) did not control for sex or gender. Only three studies (15%, 3/20) disaggregated their outcome data by sex or gender. For example, Martikainen et al. found a 34% lower age-adjusted risk of death for women and a fully-adjusted 10% less likely for women to return to the community.

Discussion section

In the discussion section of these studies, only four studies (20%, n=20) mentioned sex or gender in the interpretation of the results. For example, Martikainen et al. found that older adults enter an institution. However, after adjusting for various factors including age and living arrangement (living with a spouse or alone), the female gender provided a slight protective effect.[11]

Findings on association of sex or gender with transition outcomes

As shown in Table 2, a total of nine out of twenty studies (45%, n=20) reported the association of sex or gender with transition in care outcomes using different measures of association, including relative risk (1 study), odds ratio (5 studies), and hazard ratios (3 studies). Five studies (25%, n=20) reported an association of sex or gender for the transition from LTC to home or community while, four studies (20%, n=20) reported an association of sex or gender for other transition outcomes. There was variation in direction and size of association across sex or gender.

DISCUSSION

Main Findings

Twelve studies (60%, n=20) controlled for sex or gender in their statistical models. Since authors were not contacted, we are uncertain whether the authors of the remaining eight studies attempted to control for sex or gender analyses or completely omitted sex or gender from their analysis. Nine studies (45%, n=20) adjusted for sex or gender in their statistical analysis model and reported a measure of association for sex or gender with an outcome. Three studies (15%, n=20) only adjusted for sex or gender, and eight studies (40%, n=20) did neither. The three studies (15%, n=20) that only adjusted for sex or gender have data on sex or gender but do not report an association of sex or gender. This is a missed opportunity to help understand potential differences across sex or gender, as required by NIH and expected by CIHR and WHO.[1,3,7]

Strengths and Limitations

This was a pilot study to assess sex and gender reporting and analysis in longitudinal studies assessing the determinants of LTC transitions including, sex or gender and age. These studies were identified from a scoping review which used a comprehensive search of 6 databases.[12] We included the studies using predetermined inclusion criteria. Data extraction was conducted independently in duplicate to minimize the bias in the research process.

One of the limitations of our study is that we relied on what was reported in the studies and we did not attempt to contact authors. Authors may have considered sex or gender in their analysis but may not have reported it. Our assessment was conducted using a small sample size of studies that may be unrepresentative of sex or gender reporting in longitudinal studies of long-term care transitions.

Implications

The inadequate reporting on sex or gender in these longitudinal studies could undermine understanding of the association of sex and gender with transitions in care for older adults. Improved reporting and analysis of sex and gender could better inform the design of policies and programs to optimize transitions for older people. Including sex and gender in research has many benefits such as cost savings for health care, better policies and programs, and better health outcomes.[29] Throughout history, scientific research failed to account for sex and gender in research, harming vulnerable individuals, especially women. The European Union's decision to require integration of sex and gender in research strengthens scientific research by promoting a research design that is more inclusive for both men and women.[4] Incorporation of sex and gender in research could be improved by disaggregating data by sex and gender, including equal numbers of each sex and gender in the sample, and reporting all data with sex and gender variables.[30] Multiple factors may influence the reporting of sex and gender including, funding policies, journal policies, training on sex and gender analysis in academic training.[31]

Our pilot study was on methods and analysis of observational studies related to sex and gender. Future studies should promote sex and gender analysis in observational studies such as policies by funders and journals. Future research could include investigating the development and the evaluation of reporting guidelines on sex and gender analysis.[32]

Conclusion

Over half of studies reported or controlled for the association of sex or gender to some extent. However, there remains a gap in meeting the SAGER guidelines for reporting and analyzing sex or gender differences in these studies. There is a need for better reporting of analysis of sex or gender in research so that healthcare can be designed to meet the needs of diverse populations.

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Table 1. Baseline Characteristics (N= 20)

Characteristics	**N(%)**
Study Design	
Prospective longitudinal cohort	6(30)
	14(70)
Age (eligibility)a	
≥60 years	2(10)
≥65 years	8(40)
≥70 years	1(5)
≥75 years	2(10)
Not reported	7(35)
Proportion of females	
>50% females	14(70)
≤50% females	4(20)
No information	2(10)
Country	2(10)
Germany	1(5)
Finland	1(5)
United States	18(90)
Study Duration	
<1 year:	4(20)
1 to 5 years	8(40)
5 to 10 years	6(30)
Not described	2(10)
Primary Transition Type (primary outcome)	
LTC facility to community:16	16(80)
LTC facility to health services (rehab, hospital, ED use, first acute care use)	2(10)
Health services (i.e. rehab, hospital, ED use, first acute care use) to LTC facility	2(10)
Source of Sample	
Population	4 (20)
Long-term Care institutions	12 (60)
Health Services	2 (10)
Medicare and Long-term Care institutions	2 (10)

The majority of participants in this study were older than 60. The study also included younger cohort who had developmental disabilities (Thorn).

Table 3. Sex or gender Reporting LTC discharge in articles (N=20)

Article Section	**Sex or gender Assessment**	**N (%)**
Title and Abstract	Sex or gender noted in title and abstract	4 (20)
Introduction	Sex or gender issue discussed in introduction	3 (15)
Methods	Planned to provide association with outcomes of sex or gender in transitions	9(45)
	Adjusted or controlled for sex or gender in analysis	12 (60)
	Adjusted or controlled for sex or gender but did not provide association with outcomes for sex or gender	3 (15)
	Neither planned to provide association with outcomes or adjust for sex or gender in analysis.	8 (40)
Results	Provided association with outcomes of sex or gender in transitions	9(45)
	Provided disaggregated data on sex or gender	3 (15)
	Reported proportion of male and/or female participants	18 (90)
Discussion	Sex/ gender issues discussed	4 (20)

TABLE LEGENDS

Table 1. Baseline Characteristics (N= 20). Characteristics of 20 studies form the scoping review.

Table 2. Findings on association of sex or gender with transition outcomes (N=20). Data disaggregated by article.

Table 3. Sex or gender Reporting LTC discharge in articles (N=20). Data collection following SAGER guidelines.

Table 2. Findings on association of sex or gender with transition outcomes (N=20)

Author, Year	Country	Source of Sample	Reported Association of sex or gender (yes/no)	Sex or gender adjusted or controlled for (yes/no)	Association of sex or gender with LTC discharge to home or community, discharge time (reference group: measure of association (95% CI, if available), duration)	Association of sex or gender with other outcomes (reference group: measure of association (95% CI), duration, explanation of other outcome)
Mudrazija, 2015	US	Population	Y	Y	Female: Relative risk ratio, 1.17, < 1 month 1.19, > 1 month 1.22, < 3 Months 1.19 , > 3 month	Female: relative risk ratio, 2.37, < 1 month 1.95, >1 month LTC to living alone
Martikainen, 2009	Finland	Population	Y	Y	Female: unadjusted, hazard ratio, 0.81 (0.78 – 0.84), 90 days or greater.	Not reported
Gassoumis 2013	US	Nursing Home	Y	Y	Female: Adjusted odds ratio,	Not reported
Toles 2014	US	Medicare, SNF's	Y	Y	Not reported	Male: adjusted hazard ratio, 1.11 (1.07- 1.16), within 30 days, home Care Use, SNFa, ED use or hospitalization within 30 Days.
Thomas 2010	US	Medicare and nursing home	Y	Y	Female: Adjusted odds ratio 1.36, (1.17 -1.59), within 90 days.	Not reported
Gozalo 2015	US	Skilled Nursing Facility	Y	Y	Female: Adjusted odds ratio, 1.08 (1.06-1.11), within 30 days.	Not reported
Graessel, 2014	Germany	Stroke patients in Rehab Clinic	Y	Y	Not reported	Female: Adjusted odds ratio, 0.69 (0.31 -1.55), 2.5 years, discharge from rehab to nursing home.

Wysocki 2015	US	nursing home	Y	Y	Not reported	Female: Adjusted hazard ratio, 0.79 (0.61–1.01), 90 days, nursing home to any type of hospitalization after 90 days
Bardo 2014	US	Population (Medicaid waiver users and non-users)	N	N	Not reported	Not reported
Penrod 2000	US	Nursing home	Y	Y	Not reported	Female: Adjusted odds ratio including visiting 1.05, (0.461, 2.37), 6 weeks, discharge from hospital to nursing home Adjusted odds ratio including amount of care 0.88 (0.43, 1.8), 6 weeks, discharge from hospital to nursing home
Arling 2000	US	Nursing Home	N	N	Not reported	Not reported
Chen 2012	US	Population	N	Y	Not reported	Not reported
Callahan 2012	US	Nursing home and electronic medical data	N	Y	Not reported	Not reported
Thorn 2009	US	Nursing Home	N	N	Not reported	Not reported
Aaland 2006	US	Hospital	N	N	Not reported	Not reported
Arling 2011	US	Nursing Home	N	N	Not reported	Not reported
Arling 2010	US	Nursing Home	N	N	Not reported	Not reported
Robinson 2015	US	Nursing home	N	Y	Not reported	Not reported
Meador 2011	US	Nursing home	N	N	Not reported	Not reported
Wodchis 2005	US	Nursing Home	N	N	Not reported	Not reported
Aaland 2006	US	Hospital	N	N	Not reported	Not reported
Arling 2011	US	Nursing Home	N	N	Not reported	Not reported
Arling 2010	US	Nursing Home	N	N	Not reported	Not reported
Robinson 2015	US	Nursing home	N	Y	Not reported	Not reported
Meador 2011	US	Nursing home	N	N	Not reported	Not reported
Wodchis 2005	US	Nursing Home	N	N	Not reported	Not reported

The stigmatization of schizophrenia

Maria Ivanova[1]

[1] Faculty of Medicine, University of Ottawa, Ottawa, ON, Canada

Date Submitted: September 21, 2021
Date Accepted: October 8, 2021
Date Published: March 22, 2022

DOI: https://doi.org/10.18192/UOJM.V11i2.6078

Keywords: *Mental healthcare, virtual reality, self-stigma*

ABSTRACT

The objective of the following systematic literature review was to analyze the current stigma surrounding schizophrenia in North America, its implications, as well as to suggest potential interventions. The current societal climate reveals that many individuals lack an understanding of the etiology and symptoms of schizophrenia, leading to a general negative bias towards individuals with this disease. Additionally, many misperceptions such as enhanced violent tendencies surround patients with schizophrenia, exacerbating negative bias and actions such as avoidance. Suggestions to minimize stigma and its effects were made and include the renaming of schizophrenia, the use of virtual reality programs, the refinement of education programs, and an overall switch in how the media presents schizophrenia.

The concept of stigma has been applied to a vast array of circumstances and can be composed of a multitude of definitions. For the purpose of this paper, the term stigma will be referred to using the following commonly cited definition: “a mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society”.[1] Schizophrenia, a severe psychotic disorder, is defined in the 2013 Diagnostic and Statistical Manual of Mental Disorders (DSM) by 5 key symptoms: delusions, hallucinations, disorganized speech, disorganized or catatonic behavior, and negative symptoms.[2] Schizophrenia affects more than 21 million people worldwide, and one in every two schizophrenia-afflicted subjects does not receive care for the disease.[3] One pertinent factor that affects the prognosis of schizophrenia is the stigma surrounding the disorder. Schizophrenia, although potentially debilitating, maintains the possibility for recovery, with early intervention and a well-developed treatment plan. In one study, psychosocial functioning, defined as a patient’s ability to fulfill their role in society as a member of a family or a professional career, was considered an essential outcome measure in the recovery process of schizophrenia.[4] Psychosocial rehabilitation was considered to be “of major relevance to reduce negative symptoms, a crucial barrier towards a better quality of life”.[4] This indicates that although neurological functioning and genetics may play a large role in the development of schizophrenia, it remains a condition with many contributing psychosocial factors outside of the realm of biological processes.

DISCUSSION

Current misperceptions

The current social stigma that exists may make it difficult for patients to seek treatment due to the negative attitudes that surround receiving a schizophrenia diagnosis. By altering the harmful public perception towards schizophrenia, the potential for improvement in symptomatic outcomes and management of schizophrenia may be seen. Research has revealed that an important way to minimize the burden of disease in schizophrenia is to "reduce the stigma associated with the illness itself".[5] The Schizophrenia Society of Canada indicates that currently, 92% of Canadians have heard about schizophrenia.[6] However, an accurate understanding of this mental disorder is lacking. Many Canadians still confuse dissociative identity disorder (DID) with schizophrenia.[6] This is interesting to note, as the defining feature of DID in the DSM-5 is "the presence of two or more distinct personality states".[7] Schizophrenia, on the other hand, is not defined by the presence of multiple personality states, rather, the primary symptoms are hallucinations and delusions. Evidently, these disorders are accompanied by distinctive symptomology, making the current public confusion a mystery.

Individuals with schizophrenia as assailants

One common misconception held by society is that most patients with schizophrenia tend to act dangerously or violently. The Leger Marketing Survey of 2008 examined the beliefs held by Canadians regarding schizophrenia. Participants were asked if "schizophrenia patients are likely to act violently toward others" to which 60% responded yes.[5] Another Canadian study revealed a similar result: participants "significantly overestimated the risk of violence among schizophrenia and depression".[8] This study also concluded that "those with schizophrenia had the lowest occurrence of violence over the course of the year (14.8%), compared to those with a bipolar disorder (22.0%) or major depressive disorder (28.5%)".[8] Finally, delusions, a major symptom of schizophrenia, were "not associated with violence".[8] Researchers in Europe and Australia performed one of the largest systematic reviews and meta-analyses to date on this topic, reviewing the risk of violence in psychotic disorders. This meta-analysis included 20 studies with a total of 18,423 individuals who met the inclusion criteria and were diagnosed with either schizophrenia or other forms of psychosis.[9] The investigators found that although schizophrenia and other psychoses are associated with violent offending, most of the excess risk appears to be mediated by substance abuse disorder comorbidity.[9] Succinctly, the risk in patients who have schizophrenia comorbid with substance abuse disorder is similar to that for substance abuse disorder without psychosis.[9] Another significant study revealed a similar conclusion: "the prevalence of violence among those with a substance abuse disorder appears to be a major determinant of violence and this is true whether it occurs in the context of a concurrent mental illness or not".[8] It is important to note that this study reserved the term mental illness for major mental illnesses including schizophrenia and depression, and as such the sample included severe and non-psychotic mental disorders. In any case, these findings reveal an evident misconception regarding a supposed tendency towards violence in individuals with schizophrenia, and a lack of emphasis on the contributions of substance abuse disorders. As a method to combat common misperceptions, the media should shift their focus to the relevance of substance abuse disorder comorbidity in schizophrenia, rather than framing schizophrenia in a way that makes it seem as if violence is an unavoidable outcome.

Individuals with schizophrenia as victims

The current emphasis placed on violent crimes committed by people with schizophrenia has taken headline attention away from violent crimes committed against this group of people. A systematic review article done by Roberto Maniglio explored four databases, analyzing articles published from 1966-2007 on criminal victimization in severely mentally ill persons with schizophrenia, psychosis, depression, and bipolar disorder10. According to this review, numerous studies have discovered similar conclusions: rates of violent victimization in individuals with schizophrenia tend to be significantly higher than those of the general population.[10] Similarly, a study in The United States found that "the rate of violent victimization was 75 to 120 percent higher among individuals with schizophrenia than among the general public".[11] These studies provide several examples of correlations between victimization rates and schizophrenia diagnosis; however, it is difficult to draw direct conclusions. For example, researchers often used different definitions of victimization, and due to the multifactorial nature of this topic, many confounders such as substance abuse disorder and delay in treatment may interfere with causal conclusions. Nonetheless, there is an explicit need for shifting the paradigm that individuals with schizophrenia tend to be excessively violent.

Avoidance of individuals with schizophrenia

Another relevant concern with the current perspective on individuals with schizophrenia involves the belief that avoidance is an acceptable behaviour. In the previously cited study by Leger marketing, 40% of respondents felt as if discrimination is too strong of a term to describe avoiding someone who has a mental illness.[5] People may dislike the implications associated with the term 'discrimination', even though their mindset may indeed be discriminatory. This avoidance is highly detrimental and may lead to social exclusion. It is evident that society's current perspective may be based on incorrect sentiments. These attitudes must change in order to more accurately and holistically understand the population living with schizophrenia.

The effects of stigma

In 2002 in the British Medical Journal, Norman Sartorius, the former director of the WHO's Division of Mental Health stated that "stigma remains the main obstacle to a better life for the many hundreds of millions of people suffering from mental disorders".[12] It is evident in the literature that many individuals with schizophrenia are aware of the presence of stigma in their daily lives. A cross-sectional study that included 1229 surveys from 14 different sites indicated that 41.7% of the total sample with a schizophrenia diagnosis reported moderate or high levels of self-stigma.[13] The majority of participants (69.4%) felt that the public held negative attitudes towards mental health service users.[13] The negative effects of stigma may primarily be seen in the delay associated with seeking treatment. Obtaining a diagnosis early on remains a vastly important factor in the likely course of schizophrenia. In a study published by Yale University, it was found that detecting and treating schizophrenia rapidly improves the patients' response to treatment.[14] An article published by the Canadian Psychiatric Association determined that treatment is delayed for an average of one to two years in schizophrenic patients.[15] Delays may happen at any point in the course of the disease, either initially in terms of getting help, or delays surrounding the actual execution of a treatment plan.[15] Researchers in the United States studied the relationship between perceived stigma and delays in seeking treatment for first-episode of psychosis (FEP) in patients diagnosed with one of the following psychotic disorders: schizophreniform disorder, schizophrenia, schizoaffective disorder, brief psychotic episode, or psychosis.[16] The findings of this study indicated that "independent of symptom severity, perceived stigma may contribute to delay in seeking treatment for FEP".[16] Several meta-synthetic reviews have identified, "either self-stigma or perceived stigma as a common reason for not seeking treatment".[16] In the course of their treatment, individuals with mental illness often report feeling devalued, dismissed, and dehumanized by health professionals.[17] Patients also indicate feeling excluded from decisions, dealing with coercive treatment, not being given enough information about their condition, and being spoken to with stigmatizing language.[17] It must be noted that there are many barriers that individuals with mental health conditions face when seeking treatment; therefore, the overall individual contribution of stigma is difficult to quantify, especially with a lack of quantitative studies addressing this nuanced question. What can be concluded definitively, however, is that stigma may be one of the reasons why individuals delay seeking treatment for schizophrenia.

SUGGESTIONS FOR FUTURE INTERVENTIONS

Renaming of the disorder

Many interventions have been attempted to minimize stigma, some of which have shown success. One method which has been successfully implemented in East Asia is the renaming of schizophrenia. Japan was the first country to change the name schizophrenia "Seishin-Bunretsu-Byo" to the new name of integration disorder or "Togo-Shitcho-Sho".[18] The goal of this change was to remove the stigma associated with the previous name. This name change was implemented by 78% of psychiatric practices, so it is safe to assume that the change was not ignored, rather, a great effort was made by Japan to reinvent the term. This new name was also accompanied by an updated concept of the disorder that emphasized a full and lasting recovery if treated with modern pharmacotherapy and psychosocial care.[18] Although these findings are preliminary and require additional investigation and improved generalizability, the alteration of the term schizophrenia could potentially recreate society's perspective on the disease. Whilst this change may require a great deal of effort, it could potentially minimize negative biases and misconceptions and introduce an ability to form new and more positive associations with the term.

Virtual reality

Another potential method by which stigma could be reduced is through the use of virtuality reality (VR) to create opportunities for perspective-taking. Research in the field of social psychology has shown perspective-taking to be a reliable method in reducing negative social stereotyping.[19] Additionally, research in psychology has shown that "one approach to reducing stigmatization is to establish meaningful encounters between those who are affected by a mental disorder and those who are not".[20] Currently, there is a lack of experimental research in the realm of VR and mental illness stigma; however, preliminary research has been conducted and suggests that virtual environments can serve as effective proxies in battling implicit stereotypes.[21] Novel research in Europe has been performed to discover whether destigmatization of mental disorders, specifically, schizophrenia, could be enhanced through intergroup contact using VR.[20] Successful destigmatization was seen in a few conditions such as when "the encountered person appears likeable to the target audience".[20] Additionally, it was imperative that the contact was not "superficial once-off contact"[20] and that "repeated, positive intergroup contact such as friendships"[20] were stimulated, in order to decrease measures of stigmatization after the interaction. Ample research has shown that contact is an important strategy to decrease stereotypes and mental health stigma.[22] However, not everyone has encounters with schizophrenia firsthand, and as such, VR provides a direct way to experience the dimensions of schizophrenia and shows the potential to reduce stigma. As VR is a relatively recent development, further research must be done on the effects of its usage for mental health phenomena. One issue with VR is that due to its novelty and complex features, it is rather expensive.[23]

Re-shaping education

The more traditional, and highly effective method to destigmatize schizophrenia is the re-shaping of the current educational climate for healthcare workers. Currently, psychiatric education programs in the West focus predominantly on the neurobiological models of mental illnesses, emphasizing the biological causes of the disease.[24] Although a thorough understanding of the biochemical and anatomical processes surrounding schizophrenia is necessary for the healthcare field, a reductionist perspective may minimize the importance of several determinants of health. Specifically, an understanding of sociodemographic factors that may lead to or exacerbate schizophrenia. Research has shown that "describing mental illness in medical instead of psychosocial terms actually led to harsher behavior towards people with mental illness".[24] There may be many negative consequences of viewing disorders strictly through a biological lens. If everyone were to look at mental illnesses as simply a malfunctioning of the brain, the approach to treatment would be to regain functioning to a 'normal' level. Being diagnosed with a mental disorder is much more complex than this. Research indicates that "integrated pharmacological and psychosocial treatments, such as psychoeducation and shared decision-making, have been shown to significantly improve outcomes for people living with schizophrenia".[25] A more holistic, biopsychosocial approach should be integrated with the current perspective, specifically in educational settings of healthcare workers. Further research should examine the results of this integration and may assess whether there are benefits of extending this education outwards in more generalized educational settings such as high schools.

CONCLUSION

Schizophrenia is a debilitating and severe mental disorder; whose etiology needs to be regarded through a biopsychosocial lens, rather than a strict biological lens. The current stigma surrounding schizophrenia contributes to a difficult recovery process, and rapid measures should be taken to decrease the amount of negative stigma surrounding schizophrenia. It is difficult enough to have to manage the physical symptoms, and as such numerous stakeholders including government representatives, health care teams, and mental health researchers must come together and find ways to minimize this negative bias towards mental illness. Some areas for future research could focus on the reshaping of education and media, development of objective methods of understanding the stigma experience, and potentially a renaming of the term schizophrenia. Society should work towards reaching an atmosphere where a schizophrenia diagnosis is not accompanied by additional stigma in everyday life, rather a healthy support system that allows for a recovery process or the ability to manage symptoms successfully.

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Appel De Soumissions

APPEL GÉNÉRAL AUX SOUMISSIONS

Le Journal médical de l'Université d'Ottawa (JMUO) est une revue à comité de lecture dirigée par des étudiants diplômés et des étudiants en médecine de la Faculté de Médecine de l'Université d'Ottawa. Le JMUO accepte les manuscrits portant sur tous les **sujets cliniques, biomédicaux ou liés à la santé.** Nous utilisons maintenant un modèle de publication continue en ligne tout au long de l'année, complété par des éditions imprimées thématiques semestrielles. Nous accueillons des soumissions de haute qualité dans les deux langues officielles, soit en anglais ou en français, sous la forme de recherches originales (y compris les protocoles d'étude et les méta-recherches), de revues et de pratiques cliniques, de nouvelles et de lettres, d'articles commentaires, d'entrevues et de rapports de cas et de stage à option.

APPEL AUX SOUMISSIONS POUR L'ÉDITION PRINTEMPS/ÉTÉ

Nous continuons à publier des éditions régulières afin de souligner les développements de la recherche dans des domaines spécifiques. Ces éditions sont offertes à notre lectorat sous la forme d'un contenu imprimé exceptionnel et en ligne. Le JMUO accepte actuellement les soumissions pour sa prochaine **édition printemps/été 12.1** sur ***les innovations dans la prestation et l'enseignement des soins de santé.*** Nous considérerons les articles concernant les innovations liées à la pandémie ou tout autre domaine. La date limite de soumission pour notre édition d'automne est **le 6 mai 2022 à 23h59.** Les auteurs et les critiques de haute qualité seront récompensés par les prix JMUO. Les soumissions se font par le biais de notre site internet au http://fr.uojm.ca/ et les questions peuvent être adressées à l'adresse courriel suivante: ***contact@uojm.ca.***

APPEL AUX ILLUSTRATIONS POUR LA COUVERTURE DE L'ÉDITION PRINTEMPS/ÉTÉ

Le JMUO a également le plaisir de lancer un appel aux illustrations pour la couverture de son **édition printemps/été 12.1 :** ***Les innovations dans la prestation et l'enseignement des soins de santé.*** Nous recherchons des images photographiques de haute qualité qui représentent l'éducation, la recherche ou la pratique de la médecine en contexte canadien.

Nous sommes impatients de recevoir vos soumissions !

Zacharie Saint-Georges et Bryce Bogie
Co-rédacteurs en chef
Journal médical de l'Université d'Ottawa


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