Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

200

MĀORI AND MEDICINES ADHERENCE – INDIGENOUS VOICES AND THE PHARMACISTS' ROLE IN ACHIEVING MEDICINES ACCESS EQUITY IN AOTEAROA NEW ZEALAND

Joanna Hikaka [1], Nora Parore [1], Robert Haua [1], Mariana Hudson [1], Kevin Pewhairangi [1], Anneka Anderson [2], Rachel Brown [2], Brendon McIntosh [1]. [1] *Ngā Kaitiaki o Te Puna Rongoā o Aotearoa - The Māori Pharmacists' Association, Taupō, New Zealand;* [2] *The National Hauora Coalition, Auckland, New Zealand*

Introduction. Māori experience inequities in medicines access compared to non-Māori. Little evidence exists regarding Māori and medicines adherence. Pharmacist effectiveness in improving medicines adherence is known[1] yet pharmacists' role in adherence support and achieving medicines access equity for Māori is understudied.
Aims. To explore Māori experiences of medicine adherence and non-adherence, and pharmacists' role in supporting adherence.
Methods. Eligible participants (Māori, 18 years plus, accessed medicines from pharmacy in last three years) took part in online or in-person focus groups (included short presentation, facilitated discussion, questionnaire). Participants could contribute in English and Māori. Data was thematically analysed using a general inductive approach, informed by kaupapa Māori theory[2] and situated in social, cultural, political and historical Māori contexts.
Results. Sixty-two participants (71% female, median age range 35-44, median number medicines=2.0) took part in 13 focus groups (September 2021-February 2022). Four themes were identified: Māori wellbeing - medicines as a component of holistic wellbeing; whanaungatanga (relationships); knowledge; and *whānau* (family and support network) advocacy and problem solving.
Discussion. Improving medicines adherence improves clinical outcomes and this study privileged Māori voices to better understand adherence, and pharmacists' role in supporting Māori to experience the best possible medicine-related outcomes. Adherence is particularly relevant for Māori who experience inequities in access to quality health care across the spectrum of clinical contexts, and are likely to experience earlier onset of chronic co-morbidity than non-Māori. Pharmacists can support medicines adherence by developing authentic and caring relationships, providing good quality information, and supporting Māori to exercise autonomy through informed decision-making regarding medicine treatment.
1. Milosavljevic A, Aspden T, Harrison J. The impact of a New Zealand community pharmacy service on patients' medication adherence and ambulatory sensitive hospitalizations. Res Soc Adm Pharm. 2020;16(7):904–13.
2. Smith LT. Decolonising methodologies: Research and indigenous peoples. 2nd ed. London: Zed Books; 2012.

201

IDENTIFYING VACCINATION DESERTS: THE AVAILABILITY AND DISTRIBUTION OF PHARMACISTS WITH AUTHORIZATION TO ADMINISTER INJECTIONS IN ONTARIO CANADA

Nancy Waite [1], Sherilyn Houle [1], Patrick Timony [2], Alain Gauthier [2]. [1] *School of Pharmacy University of Waterloo, Waterloo, Canada;* [2] *Centre for Rural and Northern Health Research (CRaNHR), Laurentian University, Sudbury, Canada*

Introduction. Allowing pharmacists to immunize has been associated with improved vaccination rates; however, little is known whether areas with little to no access to this service ('vaccination deserts') exist.
Aims. To determine the geographic availability of pharmacists with authorization to administer injections in the province of Ontario, Canada.
Methods. Ontario College of Pharmacists' registry data was used to identify patient care-providing pharmacists in community pharmacies who had completed injection certification. Number of hours worked were converted into full-time equivalents (FTEs). Practice site(s) were mapped by postal code and presented by Public Health Unit (PHU) area. Communities were further categorized as urban or rural, and northern or southern, with ratios of FTEs/1000 population calculated for both injection-trained and non-injection-trained pharmacists.
Results. 74.6% of Ontario's practicing community pharmacist are authorized to provide injections. Northern PHUs had slightly better access to immunization pharmacists (0.61 FTEs/1000 overall vs 0.56/1000 in the south), while rural communities had lower availability (0.41 FTEs/1000) than urban communities (0.58 FTEs/1000). PHUs with greater population size and density had greater availability of pharmacist immunizers, while PHUs with greater land area were more likely to not have any immunization pharmacists present ($p<0.05$).
Discussion. As pharmacists increasingly become preferred vaccination providers, awareness of disparities related to access to pharmacy-based immunization and collaboration with public health and primary care providers to address these geographic vaccination deserts will be required to ensure equitable access.
1. Houle SKD, Timony P, Waite NM, Gauthier A. Identifying vaccination deserts: The availability and distribution of pharmacists with authorization to administer injections in Ontario. Can Pharm J (accepted)

202

COMMUNITY PHARMACY PROVISION IN ENGLAND DURING COVID-19: LEARNING FOR FUTURE PANDEMIC PREPAREDNESS

Harriet Warr [1], Syed Hussain [1], Ankesh Gandhi [1], Daniel Greenwood [1]. [1] *School of Medicine, Anglia Ruskin University, Chelmsford, United Kingdom*

Introduction. The COVID-19 pandemic placed increased pressure on community pharmacy in England e.g. a 22% increase in dispensing volume in March 2020 (1), and changed the scope of services with the emergence of new services such COVID-19 test distribution, vaccination and extensive medicines delivery (2). These changes should be explored to learn how pharmacy could and should respond to any future pandemic.
Aims. To explore community pharmacy service provision in England during the COVID-19 pandemic for future pandemic preparedness Methods. Telephone interviews with 9 pharmacists (including 4 managers and 2 owners), 1 dispenser and 9 patients between April and September 2021, from a mixture of rural, semi-rural or city settlements. Interview schedules (for providers/patients) were informed by literature and piloted. Transcripts were analysed thematically.
Results. Providers (pharmacists and dispenser) and patients contributed 8 and 6 themes respectively. Some examples, providers described changes in prescribing habits e.g. patients being given several inhalers for the first time in years, with such changes considered a cause of medicines shortages. Although providers felt more trusted by General Practice [GP] and vice versa, double standards were suggested: "we were being asked to take patient's blood pressure... why couldn't the surgery [GP]?". Patients also described service double standards *"you couldn't see a doctor, but you could see a nurse to have a blood test"*. Regarding medicines use, the only change described by patients was self-monitoring blood pressure at home and informing GP of readings.
Discussion. Differences in how different professionals provided care should be further explored to ensure an effective and equitable service delivery in any future pandemic. To support appropriate medicines use and supply chains, protocols should be developed to guide pharmacy services and healthcare more broadly.
1. The Pharmaceutical Journal. Items dispensed from electronic prescriptions increase by 22% in March 2020.
[Internet]. London: The Pharmaceutical Journal; [updated 2022 Jun 02; cited 2022 Mar 21]. Available from: https://pharmaceutical-journal.com/article/news/items-dispensed-from-electronic-prescriptions-increase-by-22-in-march-2020#:~:text=By%20Carolyn%20Wickware&text=Of%20the%20items%20dispensed%20in,the%20EPS%20in%20February%202020.

2. Maidment I, Young E, MacPhee M, et al Rapid realist review of the role of community pharmacy in the public health response to COVID-19 BMJ Open 2021;11:e050043. doi: 10.1136/bmjopen-2021-050043.

203

AFRICAN-BORN PERSONS LIVING WITH HIV IN MINNESOTA AT THE INTERSECTION OF CULTURE AND US HEALTHCARE SYSTEM

Assist Alina Cernasev [1], William Larson [2], Cynthia Peden-McAlpine [3], Paul Ranelli [4], Olihe Okoro [4], Jon Schommer [4]. [1] *The University of Tennessee Health Science Center, Nashville, United States of America;* [2] *Allina Health Uptown Clinic, Minneapolis, United States of America;* [3] *University of Minnesota, School of Nursing, Minneapolis, United States of America;* [4] *University of Minnesota, College of Pharmacy, United States of America*

Introduction. African-born people have been disproportionately affected by HIV/AIDS in Minnesota. Previous studies have demonstrated pharmacist's roles in adherence to the Antiretroviral (ART) regimen. Little is known about pharmacist's role in adherence and non-pharmacological interventions of African-born persons living with HIV[PLWH] when interacting with the U.S. healthcare system.
Aims. To uncover the experiences of African-born PLWH who receive ART medications and their interactions with the U.S. healthcare system.
Methods. Narrative Interviews were used as a qualitative approach for this study. Conceptual frameworks were used in designing the interview guide. Recruitment via fliers for in-person interviews with African-born PLWH in Minnesota continued until saturation was achieved. Conventional content analysis was used to analyse the data. Dedoose, a qualitative software program facilitated the data analysis. Codes were inductively derived, and similar codes were grouped into categories.
Results. Fourteen participants were from seven different African countries. Eight of the participants were diagnosed and started treatment for HIV in the U.S., while the remaining did so in their country of origin. The findings revealed two major themes.
Theme 1: Lessons from interacting with the U.S. healthcare system. Participants are still learning how to use the US healthcare system. They rely mostly on physicians for medical advice. Participants seemed unaware of the pharmacist role in their medication management.
Theme 2: Diagnosis secrecy. Participants faced the dilemma of revealing their secret to their loved ones and friends. The fear of disclosing the secret with the healthcare professionals, including pharmacists, was expressed by the participants.
Discussion. Participants seemed willing to better understand and use the healthcare system for their own benefits. Participants are not using the pharmacists as a key resource for medication information and might not seek pharmacist's advice on ART or non-pharmacological options. Pharmacists could use this opportunity to engage this population to maximize outcomes.

204

PREDICTING CONFIDENCE TO MANAGE SYMPTOMS AND SEEK MEDICAL CARE IN PATIENTS TAKING ORAL ONCOLYTIC THERAPY

Amna Rizvi-Toner [1], Emily Mackler [1,2], Kelly Procailo [1,2], Vincent Marshall [1], Karen Farris [1,2]. [1] *University of Michigan College of Pharmacy, United States;* [2] *Michigan Oncology Quality Consortium, Ann Arbor, United States*

Introduction. Oral oncolytics have transformed cancer care by allowing patients to self-administer cancer treatments. Although convenient, these drugs cause side effects that require frequent monitoring. Importantly, patients must now recognize and assess their symptom severity and comprehend and use symptom management strategies.
Aims. To assess the relationship between symptom severity and patients' confidence to manage their most bothersome symptom and patients' confidence to seek medical care for any symptom.
Methods. The Michigan Oncology Quality Consortium (MOQC) created a 19-item patient reported outcome measure (PROM) survey to assess symptom severity, confidence to manage symptoms, and adherence to therapy. Symptoms are rated from 0 (none) to 10 (worst possible), and confidence is rated from 0 (not confident) to 10 (confident). MOQC-PROM surveys were completed across multiple sites in Michigan from July 2016 to December 2018 by adult patients taking an oral oncolytic. Patients' first completed PROM was analysed (n=653) using simple linear regression.
Results. Patients that reported experiencing more severe symptoms of tiredness, shortness of breath, lack of appetite, tingling/numbness, constipation, pain, drowsiness, depression, anxiety, nausea, and overall well-being had statistically significantly lower confidence to manage their most bothersome symptom ($p<0.05$). The largest effect sizes were observed for depression ($b_1=-0.39$) and anxiety ($b_1=-0.36$); for each one-point increase in depression symptom severity, confidence score decreases by 0.39. Confidence to seek medical care for any symptom was significantly lower ($p<0.05$) in patients rating symptoms of pain, depression, anxiety, and mouth sores as more severe, and the largest effect size was observed for mouth sores ($b_1=-0.27$).
Discussion. A better understanding of symptoms that predict confidence to manage symptoms will allow clinicians to identify patients that require more education and/or support during cancer treatment. Future research should explore ways to enhance confidence and how to use a confidence measure in clinical settings to provide optimal treatment.

205

PHARMACISTS' VIEWS OF THEIR ROLES: RESULTS FROM A NATIONAL SURVEY

Marcia M. Worley [1], Anandi Law [2], Eunhee Kim [2], Amanda Mercadante [2], Jammie Luong [2]. [1] *The Ohio State University, Columbus, United States;* [2] *Western University of Health Sciences, Pomona, United States*

Introduction. Pharmacists' roles have advanced but it remains to be seen if pharmacists' perceptions of their roles have evolved alongside these expanded opportunities.
Aim. Examine pharmacist role perceptions in the medication use process (MUP).
Methods. Cross-sectional survey design with a Qualtrics online pharmacist panel. A 15-item survey was developed using a role theory framework to explore pharmacist role perceptions in the 5-step MUP: prescribing, transcribing, dispensing, administering, and monitoring, and in direct patient care services and interprofessional collaboration. Data collected included pharmacist characteristics and perceptions regarding effectiveness of and best choice for improving the MUP step (Likert-type responses) and open-ended questions explaining rationale for responses. Descriptive and content analysis were performed.
Results. A panel of 205 pharmacists, representative of practicing U.S. pharmacists in terms of age, gender, and ethnicity, completed the survey during October-November 2021. Half the sample (42.9-59.5%) believed that prescriptions are written error-free, patients use their medications as directed most of the time and are monitored and followed-up as needed. Pharmacists believed that patients first connect with them about health-related problems, and can best help patients with counselling, taking medications as directed, and medication-related monitoring. Pharmacists selected staffing, working conditions/environment, and time to be the best choices to reduce medication dispensing errors; open-ended comments additionally showed themes such as pharmacist burnout, competing demands, technology, and insurance. Almost all respondents (97.7%) agreed that pharmacist-physician collaboration is important to improve patient care/outcomes; pharmacists believed that lack of time and appropriate setup, as well as interprofessional communication challenges were barriers to collaboration.
Discussion. Pharmacists believe their roles have evolved to align with changes in expanded opportunities. This study is part of a larger project that examined physician and patient perceptions of pharmacist's roles. Clarity in role expectations amongst these stakeholders is critical to optimizing the pharmacist's role on the healthcare team.