
CONFERENCE ABSTRACT**Patient Involvement in a Scoping Review of Patient-Oriented Machine
Learning Research**

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Introduction

The Patient Oriented Predictive Modelling of Healthcare Utilization (POPMHU) project is an exploration of how data science methods can be used to understand and predict transitions in health in a regional context: the northern and central interior regions of British Columbia. These regions include a mixture of urban, rural, and remote communities and a distinctly diverse and changing population. Innovative data science methods such as machine learning and information visualization hold great promise for providing insight and decision support when dealing with the challenges of aging care, particularly due to their ability to recognize idiosyncratic and special features.

Aims Objectives Theory or Methods

One goal of our project has been establishing the current level of patient involvement in data science and machine learning research in healthcare. To this end, our group has performed a scoping review of the academic literature on this topic. It is important to us that this process also be patient oriented. To that end, our patient partners have been involved in vetting challenging inclusions, discussing key findings (particularly regarding our own work), and developing conclusions.

Highlights or Results or Key Findings

The Arksey and O'Malley's (2005) scoping review methodology was used to identify and describe the current landscape of relevant literature. In our presentation we will highlight the process we took to authentically involve and engage all members of our research team including older adult patient partners, researchers, and trainees. We took a unique step-by-step approach to introduce this scoping review framework and process through example of our previous team activities to develop a shared understanding of the methodology, and what the process and outputs have looked like on past projects. We then engaged in dialogue to refine and guide the current review incorporating feedback from all team members. We will highlight the strengths and challenges to

co-producing a scoping review on machine learning and artificial intelligence data science with older adult and caregiver patient partners.

Conclusions

Our team has sought to uphold the values of patient-oriented research in all aspects of our research collaborations, from identification of the research question and literature review through to analysis and knowledge dissemination, are co-designed to include and engage all team members including older adult and caregiver members.

Implications for applicability/transferability sustainability and limitations

We provide insight for other teams considering undertaking a scoping review which authentically engages non-academic research team partners.