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Protocol for a qualitative study exploring the pharmacist's role in supporting postsecondary students with psychotropic medication management

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ABSTRACT

Introduction Findings from the National College Health Assessment (2019) stated that anxiety and depression are the most prevalent diagnosed mental illnesses among Canadian postsecondary students with one-fifth of students self-reporting a lifetime diagnosis. Psychotropic medications can be an important component of a multifaceted approach to the management and treatment of mental illness and are the most commonly dispensed via community pharmacies. Community pharmacies provide an opportunity for pharmacists to have a prominent role in supporting patients' psychotropic medication management. However, there has been limited exploration of how pharmacists can address patients' psychotropic medication management needs, experiences and opportunities for improvements especially for emerging adults.

Methods and analysis This qualitative study will incorporate Thorne's approach to interpretative description. Purposeful snowball sampling will be used to identify students (18–25 years) taking psychotropic medication(s) to manage their mental health. Participants will be interviewed one on one using a semistructured interview guide virtually. Inductive thematic analysis is underway with data analysis being iterative and reflexive using NVivo. Information provided from the interviews will be reviewed and summarised into key themes.

Ethics and dissemination This study was approved by the University of Toronto Health Sciences Research Ethics Board (REB #43185). It is expected that there will be a very low risk for mild psychological and social harm for participants as they will have the ability to stop the interview at any time and will be aware of confidentiality. The results from this study will be used to create or adapt healthcare team services including the role of pharmacists within the healthcare ecosystem at the university and contribute to developing the next stage of research to evaluate feasibility and effectiveness of programmes at the university that help postsecondary students to manage psychotropic medication.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Semi-structured interviews from an interpretive description approach seek to discover associations, relationships and patterns resulting in an overall thematic description as views on the topic are not known.
⇒ Potential participants will be recruited through purposeful snowball sampling where enrolled participants will be asked to share details of the study with their circle which is an effective method to build trust with the researcher and participant(s).
⇒ Participation of postsecondary students through one-on-one interviews will help elicit the distinctive views of students on campus, which can be used to improve future student psychotropic medication management uptake and engagement, clinical knowledge, decision-making as well as shape interventions, to better reflect postsecondary students' own concerns and priorities in this area.
⇒ This study will focus on emerging adults at one university in one Canadian province, and therefore will not reveal experiences of people receiving care in other healthcare systems or who are living in different cultural societal contexts.
⇒ The recruitment process may have difficulty accessing participants due to the stigma of speaking of this topic to an outsider.

INTRODUCTION

Pharmacist provided medication management

Drug therapies can be complex. Medication management places an emphasis on managing drug therapies and patient medication safety.[1] Medication management is the process of selecting the right drug for therapy, ensuring the patient prescribed the medication has access to it and is taking it correctly and evaluating the medication's outcome on the patient.[2] As defined by the Institute for Safe Medication Practices,[3] medication management is patient-centred care provided by healthcare teams to optimise safe, effective and appropriate drug therapy. Pharmacists are ideally positioned to provide patient-centred medication management activities.

Pharmacists have expanded their scope of practice in many international jurisdictions[4 5] including Canadian provinces where they take on responsibilities beyond medication dispensing such as adapting prescriptions, prescribing, administering injections and performing medication reviews.[6] Pharmacists help patients achieve positive medication therapy outcomes by providing patient-specific services including: (1) providing information and safety resources for medication use; (2) flagging improper drug selection, inappropriate dosing and drug interactions; (3) reporting adverse drug reactions; (4) following up on patient compliance; (5) refilling prescription reminders and (6) education about medication.[1 7]

Emerging adulthood: a distinct period of time

As stated by Arnett, the time of life between ages 18 and 25 is a distinct period referred to as 'emerging adulthood'.[8–10] Emerging adulthood is a time when individuals are going through a life transition where they consider themselves too old to be adolescents but not yet fully adults. Emerging adults often explore a variety of possible life directions in healthcare, work, school, worldviews[11 12] and, possibly, medication management. There are many emerging adults who have finished high school and are postsecondary students, that is, those enrolled in university or college,[13] training for a long-term career goal. It is during this period of life that qualities are developed to become self-sufficient and to make independent decisions.[8]

Managing mental health

Mental health is the state of an individual's psychological and emotional well-being[14] and affects our daily lives.[15] Good mental health allows an individual to feel, think and act in ways that help make life enjoyable while coping with challenges. Mental health can be influenced by life experiences, relationships with others, work/school environments, physical health and the community you live in.[16] Mental illness is characterised by a disturbance brought on by influences listed above and is usually associated with distress or impairment in important areas of functioning such as cognition, emotional regulation or behaviour.[17] There are many different types of mental illnesses. Depression and anxiety disorders often occur during emerging adulthood, as this period of life is a critical window for psychological and social development.[18 19] de Lijster *et al* identified the mean age of onset of anxiety disorders to be 21.3[20] years and Solmi *et al* reported the peak age of onset of depression as 20.5 years.[21] Chronic stress in students brought on by the setting of a postsecondary environment is correlated with negative mental health outcomes.[22] Poor mental health can have an impact on academic performance, substance misuse, relationships, dropping out, engagement in risk behaviours and suicide.[22] Findings from the National College Health Assessment stated that anxiety and depression are the most prevalent diagnosed mental illnesses among Canadian postsecondary students with one-fifth of students self-reporting a lifetime diagnosis of depression.[23] Intervention in the early stages of onset may provide an opportunity to enhance and support outcomes in postsecondary students.[24] As the onset of mental illnesses, such as anxiety and depression, primarily occur in the age range of postsecondary students, should mental health concerns remain untreated, the risk for enduring mental illness into adulthood increases.[25] Within this transition, attempting to navigate the healthcare system may result in psychotropic medication management being negatively affected with many postsecondary students unable to identify if signs of a problem are present or when professional help is needed.[26–29]

Technology is becoming an important mode of interaction for finding information on health questions or meeting virtually with healthcare providers.[30] The number of postsecondary students seeking health information online is increasing,[30] as is the tendency for users to prefer use of the internet to find health information.[31] Not to mention, there is an abundance of health information available online.[32] Online mental health resources exist, but their effectiveness in response to mental health needs of postsecondary students has not been determined.[33]

Psychotropic medications and pharmacy support

Psychotropic medications can be important in the treatment of mental illnesses,[34] including anxiety and depression.[35] Despite high accessibility, there has been limited focus on how psychotropic medication management needs of postsecondary students could be addressed by pharmacists as part of the broader community-based healthcare team.[36 37] Going through life changes and transition places postsecondary students in a unique time of life where an emphasis on the promotion of mental health alongside treating the symptoms of mental illness might require specific age-related care.[38 39]

When postsecondary students obtain prescription medication from pharmacies, there are opportunities for the team of pharmacy professionals to support them with their psychotropic medication use and promote mental health. Previous research provides insight into the need for pharmacists to move towards a better approach to connect with, and support, postsecondary students.[39–41] However, there is a research gap in the exploration of relationships among postsecondary students' state of mental health, psychotropic medication management knowledge/needs and pharmacy services.

Postsecondary students may experience limited interactions with pharmacists due to the student's unfamiliarity with the pharmacist's role.[39 40] Students in postsecondary settings may benefit from increased access to medication management and resources for mental health. For the development and introduction of new pharmacy programmes dedicated to mental health, it is critical to understand the perspectives and needs of postsecondary students as pharmacy users.

Study aim

This study aims to explore what postsecondary students, aged 18–25 years, identify are their psychotropic medication management experiences and needs that may be addressed by pharmacists.

Research questions

The primary research question is: What experiences do postsecondary students describe with psychotropic medication management and what do they identify as needs? The secondary research questions are: How can pharmacists support postsecondary student psychotropic medication management needs? And how can digital technologies be optimised to help pharmacists support postsecondary student psychotropic medication management needs?

METHODS AND ANALYSIS

This qualitative study will incorporate Thorne's approach to interpretative description.[42] The interpretative description studies acknowledge reality as socially constructed and that reality involves multiple constructed realities while also recognising that researcher and participant influence one another.[42] Interpretive description studies provide a thematic description of a phenomenon of interest, in this case, psychotropic medication management. In doing so, a semistructured interview guide has been developed to ensure that the value of expressed experiences is recognised. The interpretative description approach is chosen for this study because it seeks to discover associations, relationships and patterns within a phenomenon.[42] This study has followed guidance offered by the Consolidated criteria for Reporting Qualitative research checklist[43] (online supplemental appendix A) for developing the background and methods and will follow checklist guidance for reporting and interpreting findings.

As the study proceeds, patterns and themes will be derived in the analysis phase to generate knowledge on postsecondary students' psychotropic medication management in a report that will be meaningful as a foundational block to the development of practices by pharmacy professionals within a healthcare ecosystem that integrates with other primary healthcare providers. The intent is to uncover knowledge that may be relevant for pharmacist clinical practice and not to develop a formal theory.

Participants

To be included, participants must currently be:

1. Registered as a postsecondary university student at the participating university.
2. Between 18 and 25 years of age.
3. Have taken psychotropic medication to manage their mental illness in the past 12 months.
4. Currently live in the province where the study is taking place.

In Canada, each province and territory is responsible for their own delivery of healthcare services resulting in differences in healthcare experiences across the country. Therefore, the inclusion criteria include those who are currently living in Ontario.[44] This self-reported information will be gathered through a screening survey to determine if they meet the inclusion criteria once the participant consents to participate in the study. Postsecondary students taking psychotropic medication for something other than mental illness (eg, to manage sleep apnoea) will be excluded.

Recruitment and consent

Potential participants will be invited through recommendations and outreach by the tricampus student union groups/representatives and through recruitment efforts in collaboration with the campus health ecosystem including the academic pharmacy at the university and the university health centre, where email invitations, social media posts, virtual and physical posters will be disseminated. Through the invitational email or QR code on the posters, interested participants will click the link and consent to being contacted by the researcher. If interested, the potential participant will provide informed consent through a Research Electronic Data Capture (REDCap) link. REDCap is a secure, web-based software platform designed to support data capture for survey research studies. All consent forms will be downloaded from REDCap as a PDF file and kept on file on a secure, password-protected desktop computer. Consenting students will complete the screening questionnaire and if they do not meet the inclusion criteria, they will receive an email notification stating they are not eligible for this study. If the consenting participant meets the inclusion criteria as provided in the screening questionnaire, they will be contacted through email and given the choice of an online interview or a phone interview that will be conducted on Microsoft Teams based on their preference. If the participant chooses an online or phone interview, consent for audio recording will be obtained through RedCap. If they choose to participate in an online interview, the participant will have the option to consent for video recording. An interview will then be scheduled at a time that is suitable for the participant. At the start of the interview, the consent form will be reviewed, the participant will be asked if they have any questions, then the participant will complete a short demographic survey before beginning the recording. The demographic survey's purpose is to determine variability in the sample. Once that is complete, the interview will begin.

Sampling

It is expected that a total of 20–25 interviews will be conducted. This study will be an in-depth exploration of postsecondary students' experience with psychotropic medication management. Due to the subjective experiential nature of this study, 20–25 individuals who have experience with this and are willing to share their experience

are expected to provide enough data to draw themes.[42] A process of ongoing reflection and interpretation of the data will occur as the study proceeds, to identify a point when data saturation is achieved, meaning no new information or themes have emerged from the interviews but rather there is repetition of the same comments in the transcripts again and again.[45] An approximation of sample size is necessary for planning while it is important to note that the need for additional participants will be regularly evaluated during the research process.[42] Participants will have a shared experience (psychotropic medication management) but vary in characteristics and in their individual experiences.

This study will use a purposeful snowball sampling method to recruit participants which is a good approach when seeking access to a specific population. Snowball sampling is a type of convenience sampling method that includes research participants who are readily available to the researcher. In snowball sampling, the existing participants help recruit future participants by spreading the word about the study to their social circles.[46 47] This method is most effective when particular members of society are not easily accessible. After the first few interviews, the participants will be asked to share the study details with others who they think might be interested and the snowball effect will continue until data saturation. This type of sampling is an effective method for this study, as it may be difficult to recruit postsecondary students taking psychotropic medication to manage their mental health due to the stigma of speaking about this topic openly to an outsider.[27] This method will build trust with participants who can tell others in their circle about the relevance of this study.

Data collection

An online or phone interview will be scheduled at a time that is convenient for the participant and will be approximately 30 min in length. A semistructured interview guide has been developed (online supplemental appendix B) and includes broad questions with probes. The interview guide was pilot tested with three students which informed the final semistructured interview guide. One-on-one interviews will be conducted on Microsoft Teams to provide the participant flexibility with scheduling and the ability to conduct an interview in the comfort of a setting where they are at ease. The audio (and video if patient consents for online interview) of the interviews will be recorded, anonymised and transcribed verbatim using the automatic transcription tool in Teams. The automatic transcript generated by Teams will then be reviewed and cleaned by the researcher. Close attention will be attributed to the early interviews conducted to assess what has worked well and what has worked less well.

The following criteria as suggested by Green and Thorogood were used when phrasing the qualitative interview questions for the semistructured interview guide[48]:

- Avoid asking respondents the research question(s).
- Use every day rather than technical and professional vocabulary.
- Check that questions do not lead the participant by suggesting a preferred answer.
- Be careful of questions which imply a judgement.
- Use open questions in preference to closed.
- Ask about concrete experiences rather than abstract.

Data analysis

The analysis will follow the process described by Braun and Clarke for inductive thematic analysis.[49] Thematic analysis is a useful analysis tool and well suited for this study because it allows the researcher to present qualitative data in a way that can be accessible to those who are involved in non-academic areas such as policy or practice. A benefit of thematic analysis is its flexibility as a method for identifying, analysing and reporting themes within data. A theme in this context is defined as capturing something important about the data in relation to the research question representing patterned response or meaning within the data set.[49] Inductive analysis is appropriate for this study as it will involve coding the data without using or trying to fit into a prior coding frame, rather the codes will be data driven. The research topic under investigation is under researched and the participants' views on the topic are not known. Therefore, rich thematic analysis of the entire data set will result in an accurate description. This analysis method was chosen because the data is not intended to produce a theory but rather to describe patterns, report experiences, meanings and the reality of participants.

As outlined by Braun and Clarke, the analysis will involve six steps[49]: (1) familiarising oneself with the data through repeated reading; (2) generating initial codes that appear interesting; (3) searching for themes by thinking about the relationship between codes; (4) reviewing themes to confirm the themes work in relation to the data set; (5) naming themes and (6) producing the report which will be identification of themes and patterns in the data set.

Data analysis will begin during the data collection phase. Time will be built in to complete 2–3 interviews a week with the following week used to transcribe and analyse data, make any changes to the semistructured interview guide and go back into the field. Data analysis will be iterative and reflexive. An audit trail will be maintained to document decisions made through the analysis process. Analyses will be aided with the use of NVivo, a software programme used for technical coding and sorting data in qualitative research.

ETHICS AND DISSEMINATION

This study has received approval from the University of Toronto Health Sciences Research Ethics Board (REB #43185). The study population is comprised of postsecondary students and thereby is considered a vulnerable population as they often explore a variety of possible independent life directions and responsibility

transitioning from youth to young adults. However, there is a very low risk for mild psychological and social harm for those participating in the interview as all participants will be aware of the identity of those in attendance (just interviewer and participant), the ability to stop at any time, and the confidentiality of their thoughts provided. Some people may feel uncomfortable sharing their opinions; however, a participant will be informed that they do not need to answer any questions that they do not want to answer. Respecting a participant's right to decide whether to participate in the research will be outlined in the informed consent process. On the consent form, the participant will be accurately informed about the aim of the research, benefits and risks, data confidentiality and voluntary participation. The consent process will continue at the start of the interview by going through the parameters of confidentiality and consent while allowing the participant to ask any questions they may have. The participant will be made aware that if they are uncomfortable to answer a question, they may simply say 'pass'. If at any point in the interview, the participant feels uncomfortable or it is evident that the participant is in distress, the recording will be stopped. Mental health resources at the university will be shared with all participants at the conclusion of the interview. The participant can stop the interview at any time if they are uncomfortable. No university faculty members will be involved in promoting the study to eliminate conflict of interest in perception of any direct benefit to grades/connections. Postsecondary students who participate in the interview will receive a CAD$20 coffee shop gift card as an appreciation for their time to participate in the study. Participants can withdraw from the study at any time up until their data is included in the aggregate analysis. After that time, it will be too difficult to remove data from the synthesised analysis. However, if a participant has withdrawn then none of their individual quotes will be uniquely highlighted in study reports. Each participant will be assigned a unique study code prior to the interview. The code will be used in data analysis to protect the name of the participant. A master code list linking participant names to interview transcriptions/recordings will be encrypted and stored on a password-protected computer housed on the university's secure server. Data resulting from this study will be publicly accessible by way of academic publications and presentations, as well as disseminated through university appropriate channels such as the Inlight Student Mental Health Research Initiative. The results will also be disseminated through pharmacy practice research networks such as the Ontario Pharmacy Evidence Network so that pharmacy professionals can learn the results of the work and further pharmacy practice research. This is to ensure future researchers can find and use data uncovered by this study to inform further research in this area.

Study findings aim to increase understanding about how pharmacists within the primary healthcare ecosystem can care for students' mental health during the time of transition to adulthood. New programmes may be developed, evaluated and if beneficial, scaled up across pharmacy and other primary healthcare settings. The results will aim to summarise current student needs with a supporting action plan on how pharmacy can implement programmes/resources/educational modules to address specific mental health medication management needs. This study aligns with the academic pharmacy's mission to advance innovation in medication management to help students enhance their health.[50] Output of the results may (or aim to) serve to improve student mental health and wellness on campus by uncovering student needs in this area of psychotropic medication management. Linking with the academic pharmacy at the university is not only beneficial to introducing student specific programmes on campus but also has potential to have an impact in the global sphere through publication, presentations and online distribution of results on their website and stakeholder groups. The results will be written into a research paper and form an action plan identifying specific self-declared needs and how to address them.

PATIENT AND PUBLIC INVOLVEMENT STATEMENT

In 2018, initial persona-scenario workshops were conducted with six stakeholder groups: university students (users of the clinic), pharmacy students (learners in the clinic), pharmacy faculty (healthcare providers and educators in the clinic), external pharmacists (stakeholders focusing on working collaboratively across pharmacy settings), pharmacy technicians (healthcare providers in the clinic) and university health centre healthcare providers and staff at the university. Participants in each individual stakeholder group were asked to create a detailed and realistic persona character that represented their stakeholder group and have that persona experience five aspects of the pharmacy: information technology, intraprofessional collaboration, interprofessional collaboration, patient centred care and an iterative learning system.[51]

These workshops provided initial qualitative data on services, technologies and student involvement in the pharmacy. Students envisioned the academic pharmacy to offer more streamlined and focused patient care relevant to the university student population; for example, students identified the topic of mental health and medication management as a top priority. The group further expressed interest in counselling services that address and expand knowledge of medication and usage. Students felt it was important to understand their medication and not just 'receive' it. The students in this group affirmed the value of wellness and mental health services/programmes while highlighting that receiving the appropriate service at the right time is vital.

In addition to the workshops conducted, patients as students will act as partners throughout this study, meaning they will guide aspects of planning and conducting research. This partnership began at the proposal stage where student community patients met

with the researcher virtually to discuss the goal of the study and gathered information through a survey on needs. Three student patients commented on and helped develop research materials including the study poster and interview guide. The patient partnership will continue in the recruitment phase where many student groups across campus will help shape wording of the recruitment materials to reduce potential for stigma and reframe the goal of the study as a movement towards well-being support. Student partners will help put up study details in the residence places and send out details to their email listservs and social media student groups. As the study proceeds, students will continue to be involved in providing their experience through interviews and then providing input in the final written results to capture the full scope of the student experience and ensure results reflect that. This study follows the engagement values and principles of the Canadian Institutes of Health Research which include inclusiveness, support, mutual respect and cobuilding.[52]

Contributors AM responsible for writing protocol, data collection, data analysis and ongoing research activities. LD responsible for providing direction and edits on protocol and ongoing research. BAS and KC responsible for providing guidance, comments and edits on protocol and ongoing research.

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Competing interests AM acknowledges her position as a woman currently studying at the university. There is a possibility the interviewer may encounter a participant who are known prior to the interview. If there is a participant with whom the interviewer shares a relationship, that participant will be excluded from the study to remove biases.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods and analysis section for further details.

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