Examining Nurses' Attitudes Toward Patients Who Use Substances in the Hospital Setting

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DECLARATION

I hereby declare that I am the sole author of this dissertation. This is a true copy of the dissertation, including any required final revisions, as accepted by my examiners. I understand that my dissertation may be made electronically available to the public.

ABSTRACT

Objectives

This dissertation had two objectives. The first objective was to examine how to assess nurses' attitudes toward patients who use substances (PWUS) in the hospital setting. The second objective was to describe nurses' attitudes toward PWUS, factors related to these attitudes, and perceived barriers to providing high-level care to this patient population to facilitate organizational change.

Methods

A cross-sectional electronic survey was presented in the fall of 2024 to the 1,400 registered nurses (RNs) and registered practical nurses (RPNs) employed in direct patient care roles at an acute care academic hospital in northwestern Ontario, Canada. The outcome of interest was nurses' attitudes toward PWUS as measured by the Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ) and the Drug and Drug Problems Perceptions Questionnaire (DDPPQ). Participants were randomly assigned to complete either of the two measures noted or revised versions of those measures to include person-centred (PC) language (e.g., PC-AAPPQ and PC-DDPPQ). Factors related to these attitudes were assessed using validated measures of social desirability, workload, burnout, and adverse childhood experiences (ACEs), along with open-ended questions to explore the nurses' experiences caring for PWUS in the hospital setting. Descriptive statistics, psychometric analyses, hierarchical regression, and inductive content analysis were used to address the study objectives.

Results

Manuscript 1

This scoping review found that nurses generally held negative attitudes toward PWUS in the hospital setting. Key contributing factors included limited knowledge of and education about substance use, challenges with pain management, and a lack of organizational support. These themes highlighted systemic issues that shaped the nurses' attitudes and underscored the need for targeted interventions at multiple levels of the health care system.

Manuscript 2

Modifying the AAPPQ and DDPPQ to reflect PC language (e.g., PC-AAPPQ and PC-DDPPQ) resulted in changes to their underlying factor structures, with neither the original nor the revised versions demonstrating optimal model fit. Exploratory analyses produced shortened, alternate factor models, suggesting that both the original and PC tools may require further refinement to remain psychometrically sound and conceptually aligned with contemporary societal and academic discourse on PC language.

Manuscript 3

This study identified multiple factors associated with nurse' attitudes toward PWUS in the hospital setting, with results varying across attitude measures and scales. Although contextual factors such as workload, burnout, and social desirability yielded inconsistent associations, education or training in substance use and/or addiction as professional development was consistently associated with more positive attitudes. Nurses working in mental health in-patient units also reported significantly more favourable attitudes, though this result may have reflected self-selection bias. These findings underscore the potential value of targeted education while

highlighting the need for further research into contextual influences and the real-world impact of attitudinal change on patient care.

Manuscript 4

Qualitative analysis identified six key barriers that the nurses faced delivering quality care to PWUS: (a) moral and professional tension, (b) lack of resources, (c) limited knowledge, (d) staffing shortages and high workload, (e) absence of organizational policy, and (f) negative and stigmatizing provider attitudes. To improve care, the nurses recommended five corresponding supports: (a) enhanced education and training, (b) increased resources, (c) additional staffing, (d) clear hospital policies, and (e) strengthened safety measures. Investing in in-hospital addiction medicine teams may be a particularly effective strategy to address multiple concerns raised by the nurses.

Conclusions

This dissertation highlighted gaps in the ways that the nurses' attitudes toward PWUS were measured and influenced. The results indicated a need for improved assessment tools, targeted education, and organizational investment in supports such as addiction medicine teams. Addressing these areas is essential to fostering more compassionate, evidence-based care and equitable health outcomes for PWUS in the hospital setting.

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Lastly, to Sloan and Kieran, you are too young now to understand the dedication and effort that this dissertation took, but thank you for bringing so much joy and light to my academic journey. No matter how stressful my days were, I was always greeted at home with love and laughter, which made all the difference. You may not have known it, but you handled my stress with such grace. I love you both more than you will ever know.

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List of Abbreviations

AAPPQ   Alcohol and Alcohol Problems Perceptions Questionnaire

ACE   Adverse childhood experience

BIDR   Balanced Inventory of Desirable Responding

CFA   Confirmatory factor analysis

DDPPQ   Drug and Drug Problems Perceptions Questionnaire

EFA   Exploratory factor analysis

MBI-HSS[MP]**Error! Bookmark not defined.**   Maslach Burnout Inventory Human Services

Survey for Medical Personnel

PC   Person-centred

PC-AAPPQ   Person-Centred Alcohol and Alcohol Problems Perceptions

Questionnaire

PC-DDPPQ   Person-Centred Drug and Drug Problems Perceptions

Questionnaire

PWUS   Patients who use substances

RNs   Registered nurses

RPNs   Registered practical nurses

SEM   Socioecological model

CHAPTER 1: INTRODUCTION

Nurses constitute the backbone of the Canadian health care system, representing 57% of the workforce across five key health professions: medical doctors, nursing and midwifery personnel, dentists, and pharmacists (World Health Organization [WHO], 2025). They serve crucial roles in a variety of settings, including hospitals, community health, and long-term care facilities (Canadian Nursing Association, 2025). In Ontario, nurses work in diverse capacities as registered nurses (RNs), registered practical nurses (RPNs), and nurse practitioners (NPs), collectively delivering comprehensive, patient-centred care nationwide (College of Nurses of Ontario, 2025). However, in the aftermath of the COVID-19 pandemic, the profession has been stretched to its limits, facing deteriorating working conditions (Llop-Gironés et al., 2021; Tamata et al., 2021); increasingly complex and demanding patient care needs (Banda et al., 2022; Tomblin Murphy et al., 2022); widespread staffing shortages (Tomblin Murphy et al., 2022; WHO, 2025); rising burnout rates (Li et al., 2024); and serious challenges to their mental health and emotional well-being (Al Maqbali et al., 2021; Yang et al., 2024).

The accumulation of these pressures has taken a significant toll on nurses, with evidence suggesting that the strain may influence how they engage with patients, especially patients from marginalized or vulnerable groups (Al-Awadhi et al., 2017; Yaghmour, 2021). Researchers have specifically highlighted that some nurses may exhibit more negative attitudes toward patients who use substances (PWUS; Antill Keener et al., 2023; Babiarczyk et al., 2024; Mahmoud et al., 2021) in comparison to other patients with alternate comorbidities (Mulyani et al., 2021). As the health care professionals most consistently present at the bedside, nurses play a critical role in identifying, assessing, and responding to the needs of PWUS in the hospital setting.

Mclellan (2917) broadly defined *substance* as any psychoactive agent capable of causing harm to an individual's health or social well-being, including the risk of addiction. These substances span legal options such as alcohol and cannabis; illicit drugs like heroin, crack/cocaine, and methamphetamines; and prescription medications such as oxycodone, which is intended for medical use but has the potential for misuse. When used outside of medical guidance or in disproportionate amounts, substances can produce immediate and long-term adverse effects (Mclellan, 2017). The term *substance use*, which is intentionally non-stigmatizing (National Centre on Drug Abuse, 2025), captures a growing public health concern in Canada, where usage patterns continue to escalate (Government of Canada, 2025).

To appreciate the scope of this issue, it is important to consider recent epidemiological data. Substance use continues to be a significant and growing public health concern in Canada. Recent national surveys have indicated that approximately 21% of Canadians age 15 years and older have reported using at least one illicit drug in the past year, with alcohol use remaining prevalent among more than 70% of the population (Government of Canada, 2023). The opioid crisis in particular has led to alarming increases in hospitalizations and overdose deaths, with more than 7,000 opioid-related fatalities reported in 2023 alone (Government of Canada, 2025).

Given the prevalence of substance use in the community, it is not uncommon for patients to continue consumption during hospitalization, often in response to health complications associated with their use. Many PWUS are admitted to hospital as the result of such conditions as cellulitis, abscesses, endocarditis, deep vein thrombosis, or overdose, all of which are linked directly to their substance use (Larney et al., 2017; McCarthy et al., 2020). Patients often have reported ongoing substance use during hospitalization (Eaton et al., 2020; Grewal et al., 2015;

McNeil et al., 2014), with some researchers indicating that up to 50% of PWUS engage in substance use while admitted (Serowik et al., 2020; Strike et al., 2020).

In an effort to conceal their substance use from hospital staff, PWUS may engage in high-risk practices such as injecting with unidentified or previously used syringes, using contaminated drugs or adulterants, sharing injection equipment, or preparing drugs with unsafe alternatives like tap water or saliva (Dong et al., 2020; Sharma et al., 2017; Strike et al., 2020). These strategies significantly heighten the risk of serious health consequences, including infections, transmission of blood-borne illnesses like hepatitis C and HIV, and nonfatal as well as fatal overdoses (Tarasuk et al., 2021).

Patients have reported that continued substance use during hospitalization often is driven by factors such as unmanaged withdrawal symptoms (Sowicz et al., 2022; Strike et al., 2020); unmanaged pain; and feelings of boredom, loneliness, and sadness (Strike et al., 2020). Strike et al. (2020) reported that to cope, many PWUS used substances discreetly in their hospital rooms, bathrooms, or elsewhere on hospital grounds as a way to self-manage their symptoms. Compounding this problem, researchers have suggested that some nurses have demonstrated negative attitudes toward PWUS (Mahmoud et al., 2021; Renbarger et al., 2021), which patients have perceived as a lack of empathy and the presence of discriminatory behaviours (Balmuth et al., 2024; Strike et al., 2020).

These strained interactions have the potential to damage the therapeutic alliance between patients and nurses severely, a relationship fundamental to effective care. When this alliance is fractured, it can lead to poorer health outcomes for patients (Hyshka et al., 2019; Mayer et al., 2023; Moallef et al., 2021) and increase the emotional and professional burdens on an already strained nursing workforce. Gaining deeper insight into nurses' attitudes toward PWUS and the

underlying drivers of those attitudes may help to identify strategies to improve care experiences,

enhance patient outcomes, and strengthen the overall performance of the health care system.

Goal and Objectives of the Dissertation

This doctoral dissertation was conducted to examine nurses' attitudes toward PWUS in

the hospital setting to improve the quality of care that patients receive, their care outcomes, and

the overall efficiency of the health care system. I identified two research objectives. The first

objective was to examine how to assess nurses' attitudes toward PWUS in the hospital setting.

The second objective was to describe nurses' attitudes toward PWUS, factors related to these

attitudes, and perceived barriers to providing high-level care to this patient population to

facilitate organizational change. These objectives were met by examining and answering three

research questions (RQs) and the approach to the study (i.e., methodology and analysis; see

Table 1.1). For Manuscript #2, person-centred (PC) language involves framing individuals as

more than their health conditions by consciously choosing words that highlight the person first,

rather than defining them by their diagnosis or behaviour (Mental Health Commission of

Canada, 2024; National Institute on Drug Abuse, 2024). Labels like "alcoholic" or "drug user"

are considered stigmatizing because they can reinforce harmful stereotypes and contribute to

internalized stigma, making it more difficult for individuals to see themselves apart from their

substance use and potentially disrupting their motivation to pursue recovery or life goals (Mental

Health Commission of Canada, 2024; National Institute on Drug Abuse, 2024; Traxler et al.,

2021).

Table 1.1

Studies, Associated RQs, and Approach (Methodology & Analysis)

Manuscript no.	RQs	Methods	Analysis
1: Examining nurses' attitudes toward PWUS in the hospital setting: A scoping review	To explore the extant literature on nurses' attitudes toward PWUS in the hospital setting.	Scoping review	Thematic synthesis
2: Adapting the AAPPQ and DDPPQ: A psychometric analysis of a person-centred approach	Does modifying the language of the original AAPPQ and DDPPQ to create the PC-AAPPQ and PC-DDPPQ affect the reliability, internal consistency, and factor structures of these questionnaires when used by practising registered nurses and registered practical nurses?	Descriptive, cross-sectional	Confirmatory and exploratory factor analysis
3: Workload, burnout, and beyond: Contextual factors shaping nurses' attitudes toward patients who use substances in the hospital setting	Are there associations between nurses' attitudes toward PWUS and select exploratory variables (e.g., social desirability, workload, burnout, and adverse childhood experiences)?	Descriptive, cross-sectional	Hierarchical regression
4: Nurses on the frontline: The need for organizational backing in supporting nurses who care for patients who use substances in the hospital setting	What are the perceived barriers to delivering quality care toward PWUS, and what recommendations do nurses have for organizational supports to improve care for this population?	Descriptive, cross-sectional	Inductive content analysis

Organization of the Dissertation

This manuscript-based dissertation comprised four original manuscripts, each contributing to a cohesive examination of nurses' attitudes toward PWUS. To begin this dissertation, I conducted a comprehensive scoping review (see Chapter 2, Manuscript 1) examining the extant literature on nurses' attitudes toward PWUS in the hospital setting. This review served to expand upon the introductory chapter and establish a foundational understanding of the ways in which nurses' perceptions have been studied to date. In addition to synthesizing the current evidence, the review identified significant gaps in the literature.

Building on these insights, Chapter 3 (Manuscript 2) presented a psychometric evaluation of the AAPPQ and the DDPPQ, the tools most frequently used to assess nurses' attitudes toward PWUS. To reflect contemporary standards for PC and nonstigmatizing language, I adapted these tools to be more person centric. This chapter explored whether and how these language modifications influenced the tools' psychometric properties, revealing factor structures that diverged from those reported in prior literature.

Informed by these findings, Chapter 4 (Manuscript 3) investigated whether nurses' attitudes toward PWUS, as measured using the revised tools, were associated with key professional and personal characteristics and psychosocial stressors: social desirability, workload, burnout, and adverse childhood experiences (ACEs). This analysis provided insight into the ways that individual and systemic factors shaped the nurses' perceptions and care practices.

Chapter 5 (Manuscript 4) drew on qualitative data collected through the open-ended survey responses to explore the nurses' experiences delivering care to PWUS in the hospital setting. This chapter identified perceived barriers to providing high-quality care and presented the nurses' recommendations for organizational supports to improve the care environment and outcomes for this patient population.

The dissertation concluded with Chapter 6, which integrated the findings across studies, discusses their implications, and offers final conclusions. Each manuscript was prepared with its own reference list, with a comprehensive bibliography compiled in Appendix A. Ethics approval for the studies in Chapters 3, 4, and 5 was obtained from Lakehead University's Research Ethics Board (REB #1470672; see Appendix B). An overview of the content of the dissertation is summarized in Table 1.2.

Table 1.2

Dissertation Outline and Alignment to Manuscripts

Chapter	Manuscript	Study description	Submission status
1		A high-level overview of the topic, dissertation, and associated outline	Not applicable
2	Manuscript 1	A scoping review to characterize the literature on nurses attitudes toward PWUS in the hospital setting	Submitted: *International Journal of Nursing Studies Advances*
3	Manuscript 2	A psychometric analysis of an alcohol and drug measurement that assesses attitudes	Published: *Drug and alcohol dependence reports*
4	Manuscript 3	A hierarchal regression analysis of exploratory variables affecting nurses attitudes toward PWUS	Submitted: *Journal of Clinical Nursing*
5	Manuscript 4	A qualitative study to examine barriers nurses face delivering quality care to PWUS and what supports do nurses recommend for organizations looking to improve the care that PWUS receive	Submitted: *Journal of Advanced Nursing*
6	Integrated discussion	Summarizes and integrates the main findings of the dissertation	Not submitted

Author Contributions

Following is an outline of the list of authors and their respective contributions for each manuscript in this dissertation. Contributor Role Taxonomy (CRediT) was used to describe the types of contribution from each author (https://credit.niso.org/).

Manuscript 1: Examining Nurses' Attitudes Toward Patients Who Use Substances in the Hospital Setting: A Scoping Review

Authors: Andrea Raynak, France Paquet, Amanda Bakke, Dr. Brianne Wood, Dr. Michel Bédard, Dr. Christopher Mushquash & Hunter Polonoski

CRediT taxonomy

Andrea Raynak: conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, resources, software, validation, visualization, writing – original draft, writing – review & editing

France Paquet: data curation, formal analysis, investigation, methodology, software, writing – original draft, writing – review & editing

Amanda Bakke: data curation, formal analysis, software, writing – original draft, writing – review & editing

Dr. Brianne Wood: supervision, validation, visualization, writing – review & editing

Dr. Michel Bédard: supervision, validation, writing – review & editing

Dr. Christopher Mushquash: supervision, validation, writing – review & editing

Debra Gold: methodology, writing – review & editing

Hunter Polonoski: writing – review & editing

Manuscript 2: Adapting the AAPPQ and DDPPQ: A Psychometric Analysis of a Person-Centred Approach

Authors: Andrea Raynak, Dr. Michel Bédard, Dr. Brianne Wood, Dr. Chris Mushquash

CRediT Taxonomy

Andrea Raynak: conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing- original draft, writing- review and editing, visualization, project administration and funding acquisition

Dr. Bédard: conceptualization, methodology, validation, formal analysis, investigation, resources, writing-review and editing, supervision

Dr. Wood: conceptualization, methodology, validation, writing-review and editing, supervision

Dr. Mushquash: conceptualization, methodology, validation, writing-review and editing, supervision

Manuscript 3: Workload, Burnout, and Beyond: Contextual Factors Shaping Nurses' Attitudes Toward Patients Who Use Substances in the Hospital Setting

Authors: Andrea Raynak, Dr. Michel Bédard, Dr. Brianne Wood, Dr. Christopher Mushquash

CRediT Taxonomy

Andrea Raynak: conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing- original draft, writing- review and editing, visualization, project administration and funding acquisition

Dr. Bédard: conceptualization, methodology, software, validation, formal analysis, investigation, resources, writing-review and editing, supervision

Dr. Wood: conceptualization, methodology, validation, writing-review and editing, supervision

Dr. Mushquash: conceptualization, methodology, validation, writing-review and editing, supervision

Manuscript 4: Nurses on the Frontline: The Need for Organizational Backing in Supporting Nurses who Care for Patients who Use Substances in the Hospital Setting

Authors: Andrea Raynak, Isabella Ryynanen, Dr. Michel Bédard, Dr. Brianne Wood, Dr. Chris Mushquash,

CRediT Taxonomy

Andrea Raynak: conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing- original draft, writing- review and editing, visualization, project administration and funding acquisition

Isabella Ryynanen: formal analysis, visualization, writing- review and editing

Dr. Bédard: conceptualization, methodology, validation, writing-review and editing, supervision

Dr. Wood: conceptualization, methodology, validation, writing-review and editing, supervision

Dr. Mushquash: conceptualization, methodology, validation, writing-review and editing, supervision

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Introduction to Chapter 2

The scoping review presented in Chapter 2 was designed to characterize the extant literature on nurses' attitudes toward patients who use substances (PWUS) in the hospital setting. This review was conducted to synthesize current knowledge, identify prevailing themes, and highlight gaps in the literature warranting further exploration. The project was conducted in collaboration with a research assistant (Amanda Bakke [A.B.], Thunder Bay Regional Research Institute); a second researcher (France Paquet [F.P.], Hawkesbury General Hospital); and a librarian (Debra Gold [D.G.], Lakehead University). I also worked with an undergraduate nursing student who was interested in the research process (Hunter Polonoski [H.P.], Lakehead University). I led the development of the research question (RQ), established the inclusion and exclusion criteria, designed the data extraction and analysis plans, and prepared the initial and subsequent drafts of the manuscript. France, Amanda, Debra, and Hunter contributed to the reporting of results and provided editorial input on the final manuscript. The completed manuscript was reviewed and approved by my doctoral committee (Dr. Mushquash, Dr. Bédard, and Dr. Wood) and is currently under peer review with *The International Journal of Nursing Studies Advances*.

Abstract

Aim

This scoping review aimed to explore the literature on nurses' attitudes toward hospitalized patients who use substances (PWUS).

Design

Following PRISMA-ScR reporting guidelines, a scoping review was conducted to assess the available evidence on this topic.

Methods

A systematic search was conducted on August 27, 2024, in PubMed, PsycINFO, and CINAHL to identify peer-reviewed studies published in English or French between 2014 and 2024. This scoping review included original qualitative and quantitative research published in English that examined nurses' (e.g., registered nurses [RNs] or registered practical nurses [RPNs]) attitudes toward PWUS (e.g., drugs and/or alcohol) in the hospital setting. Study selection followed a structured screening process conducted by two independent reviewers. Data extraction was performed using a standardized tool to collect information on the country of origin, study aim/purpose, methodology, nursing area of work, hospital setting, tools/approaches used to assess attitudes, and key findings. The extracted data were synthesized to provide an overview of study characteristics and identify predominant themes relevant to nurses' attitudes toward PWUS in the hospital setting. A total of 1,568 abstracts were screened for the review, with 13 full-text articles meeting the criteria. Citation mining identified an additional four studies, resulting in 17 articles for analysis.

Results

  This scoping review, which found that overall, nurses held negative attitudes toward PWUS in the hospital setting, identified several recurring themes: (a) gaps in knowledge and education surrounding substance use, (b) concerns managing pain for this patient population, and (c) a perceived lack of support from the hospital. These findings are contextualized using Bronfenbrenner's (1979) socioecological model (SEM).

Conclusion

  The findings highlight the need for hospitals to address knowledge gaps, enhance educational resources, and provide organizational support to reduce nurses' negative attitudes and improve care for PWUS. Fostering professional development and implementing targeted interventions may enhance both nursing practice and patient outcomes in the hospital setting.

CHAPTER 2: EXAMINING NURSES' ATTITUDES TOWARD PATIENTS WHO USE SUBSTANCES IN THE HOSPITAL SETTING: A SCOPING REVIEW

Introduction

Substance use can result in hospital admissions for conditions such as cellulitis, abscesses, and overdose (Monks et al., 2013). Hospitalized patients who use substances (PWUS) in the hospital setting often engage in high-risk behaviours, including sharing needles and using contaminated drugs driven by unmanaged withdrawal, pain, or emotional distress (Dong et al., 2020; Grewal et al., 2015; Strike et al., 2020). These actions heighten the risk of infections such as blood-borne diseases, abscesses, cellulitis, and overdose (Wright et al., 2020). Understanding the ways that nurses perceive and interact with PWUS in the hospital setting is critical to improving nursing practice and patient outcomes.

The COVID-19 pandemic intensified challenges faced by nurses, including an increase in patient care complexities, inadequate staffing, and worsening working conditions (Bourgault, 2022; Maghsoud et al., 2022; Tamata et al., 2021; Tomblin Murphy et al., 2022). These pressures have strained the profession and adversely affected interactions with vulnerable populations such as PWUS in the hospital setting (Al-Awadhi et al., 2017; Yaghmour, 2022). Research has indicated that nurses frequently exhibit more negative attitudes toward PWUS than toward patients with other health conditions (Mulyani et al., 2021).

Although nurses often view the challenges of caring for PWUS as opportunities to provide meaningful care, many nurses have reported low motivation, emotional exhaustion, and dissatisfaction when working with this patient population (Johansson & Wiklund-Gustin, 2016; Kiepek et al., 2021; Mahmoud et al., 2021; Van Boekel et al., 2013). These perceptions of PWUS as difficult or disruptive can cause nurses to feel discomfort, express safety concerns, and

adopt authoritarian care approaches, all of which can undermine compassionate care (Antill Keener et al., 2023; Hakala et al., 2020; Menard-Kocik & Caine, 2021; Molina-Mula et al., 2018; Neville & Roan, 2014). As a result, patients may withhold information about substance use, complicating therapeutic relationships and leading to incomplete assessments and missed opportunities for meaningful patient engagement (Atashzadeh-Shoorideh et al., 2020; Monks et al., 2013; Renbarger et al., 2021). This scoping review sought to explore the extant literature on nurses' attitudes toward PWUS in the hospital setting. To my knowledge, no other recent systematic or scoping review has exclusively examined nurses' perspectives in this context.

Method

This scoping review followed the Joanna Briggs Institute methodology (Aromataris et al., 2024) and adhered to PRISMA-ScR reporting guidelines (see Appendix C; Tricco et al., 2018). A review protocol did not exist for this scoping review.

Only original research published in peer-reviewed journals that focused on nurses' attitudes toward PWUS in the hospital setting was included in this review. *Nurses* refers to registered nurses (RNs) and registered practical nurses (RPNs), excluding other hospital providers because of their limited time interactions with this patient population. For the purposes of this review, the term *substance* encompassed drug and alcohol use, excluding tobacco and cannabis (see Table 2.1). This exclusion was based on the fact that tobacco and cannabis use less frequently results in hospital admissions, and the associated health complications, such as withdrawal, tend to be less severe. As a result, the behaviours and challenges linked to their use are different from those associated with other substances, thus warranting a separate consideration.

Comprehensive searches were conducted on August 27, 2024, across the following databases: PubMed, PsycINFO (ProQuest), and CINAHL (EBSCO). The search was restricted to

original research articles published between 2014 and 2024 that had been peer reviewed and written in English. This time frame for the review was chosen to reflect the evolving landscape of substance use in the hospital setting. Over the past decade, the incidence of substance use has risen significantly (Government of Canada, 2023), coinciding with the expansion of harm reduction initiatives such as naloxone distribution and supervised consumption services (Hyshka et al., 2017). These developments have likely shaped nurses' attitudes and clinical practices, making this period particularly relevant for investigation.

The initial search strategy was developed with a medical librarian in PubMed and then adapted for the other databases. Subject headings were modified slightly according to the repository in each database (see Appendix D). Search results were uploaded into Rayyan, an intelligent systematic review software for reference management (Ouzzani et al., 2016). After duplicates were removed, abstracts were screened against the inclusion criteria, and the remaining articles were then reviewed in full, with exclusions made as necessary by the primary researcher (A.R.). This process was repeated independently by the second researcher (F.P.). Once both researchers completed their reviews, results were compared, and reviewers' disagreements were resolved through consensus. In addition, citation mining was conducted by reviewing the reference lists of included articles to identify additional relevant studies.

Data were independently extracted from each included study by two reviewers (A.R. & F.P.), with a research assistant (A.B.) providing support. Both reviewers extracted data from all articles separately, and discrepancies were resolved through discussion to ensure accuracy and reproducibility using a data extraction tool developed specifically for this review (see Table 2.2). The initial version of the data extraction tool was refined and revised as needed during the extraction process. The extracted data included key study details: country of origin, study

aim/purpose, methodology, nursing area of work, hospital description, tools/approaches used to assess attitudes, and study outcomes.

The extracted data were charted using a descriptive analytical approach consistent with scoping review methodology. The data were first organized into a summary table (see Table 2.2), which enabled comparison across key study characteristics and findings. The research team then conducted a narrative synthesis to identify common themes, patterns, and gaps related to nurses' attitudes toward PWUS in the hospital setting. Studies were grouped by methodological approach, and thematic trends were highlighted to map the breadth and variation in findings. This synthesis process was iterative, involving regular team discussions to refine emerging categories and ensure alignment with the review's objective.

In line with the objectives of this scoping review, namely, to map the breadth and depth of the topic, and considering the inclusion of diverse study designs, a formal quality appraisal was not performed. This review was not registered. Lastly, some studies included in this review used non-person-centred terms such as *substance abuse* or *alcohol abuse*. For the purposes of this review, these terms were replaced with more person-centred (PC) language such as *substance use* or *substance use difficulty* to reduce stigma and reflect the complexity of substance-related challenges more accurately.

Results

A total of 1,598 articles were identified for screening following the removal of duplicates from the online database search. Screening was conducted based on titles and abstracts, resulting in the exclusion of 1,568 articles according to the inclusion and exclusion criteria. The full texts of the remaining 30 articles were retrieved and assessed for eligibility. Of these, 17 articles were excluded for the following reasons: review articles (not original research; $n = 4$), wrong

population ($n = 5$), unrelated topic ($n = 6$), and not in English ($n = 2$). This process resulted in 13

full-text articles eligible for inclusion, with an additional four identified through citation mining,

bringing the total to 17 articles included in this scoping review (see Figure 2.1).

Figure 2.1

PRISMA-ScR
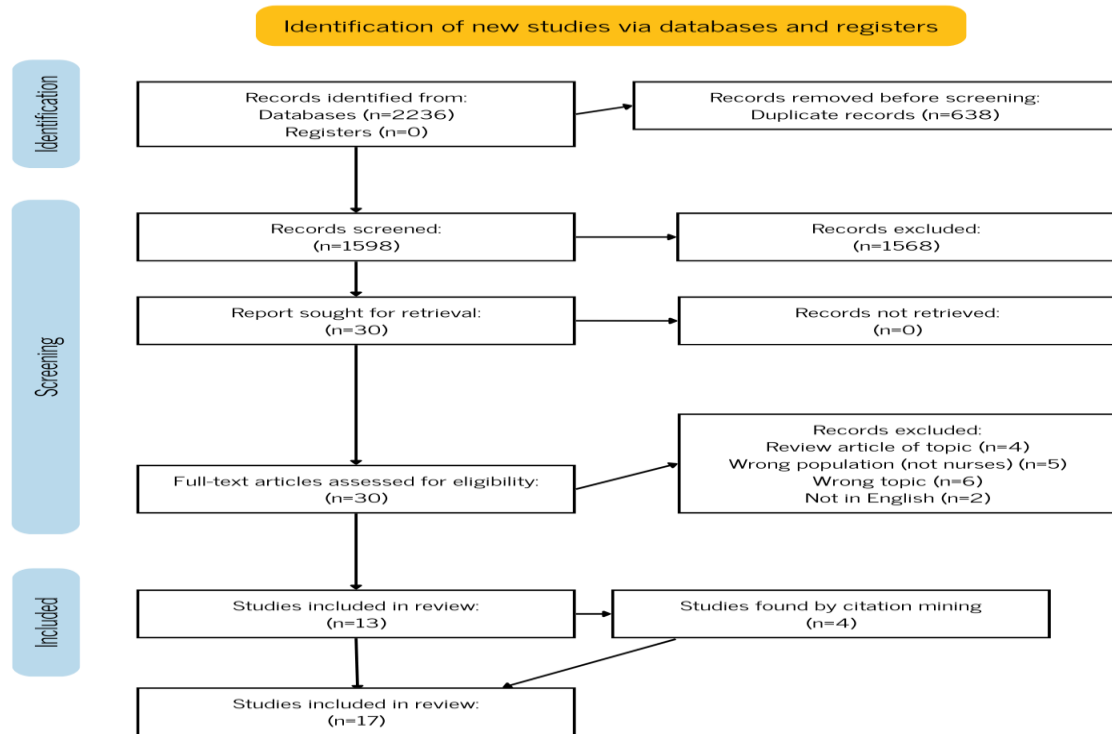
Study Characteristics

Location

      Most of the articles in this review originated from the United States ($n = 9$), with

additional studies from Canada ($n = 2$), Spain ($n = 1$), Poland ($n = 1$), Finland ($n = 1$), Sweden

($n = 1$), Israel ($n = 1$), and Bhutan ($n = 1$).

Study Design

      The studies reviewed employed a range of study designs: qualitative ($n = 8$), quantitative

($n = 7$), or mixed methods ($n = 2$). Descriptive studies were the most common ($n = 8$),

comprising cross-sectional ($n = 5$), correlational ($n = 1$), nonexperimental ($n = 1$), and those

using parametric and nonparametric methods ($n = 1$). One study integrated cross-sectional, observational, and mixed methods approaches. Among the qualitative studies, grounded theory was used in two studies, and content analysis was applied in five studies.

Tool(s) of Measurement

The studies used various methods to measure nurses' attitudes, including the Seaman-Mannello Scale ($n = 1$), the adapted Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ; $n = 2$), self-constructed surveys ($n = 4$), written responses to questions ($n = 1$), semistructured interviews ($n = 6$), the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; $n = 1$), the Survey of Attitudes and Perceptions ($n = 1$), and reflective dialogues ($n = 1$).

Hospital Setting

The hospital settings described were varied and included a community medical centre, academic medical centres ($n = 2$), a large urban birthing centre, an urban public health hospital, an inner-city urban hospital, central hospitals ($n = 2$), a community hospital, and a psychiatric hospital. Notably, seven studies did not provide details about the type or description of their hospital settings.

In-Patient Unit

The in-patient units included in the reviewed studies were diverse. Although several studies ($n = 11$) included nurses across all hospital units, others ($n = 3$) focused on specific specialties such as obstetrics/gynecology emergency/mental health units ($n = 2$) and psychiatric units ($n = 1$).

Themes in the Literature

To organize these findings, Bronfenbrenner's (1979) socioecological model (SEM) was employed (Kilanowski, 2017). This model was selected because of its ability to account for the intricate and dynamic interactions between individual behaviours and external influences that collectively shape the quality of patient care and care outcomes. The SEM was particularly appropriate for this analysis because it recognizes that nurses' attitudes and decision-making processes are shaped not only by internal beliefs, experiences, and professional challenges but also by broader structural and societal forces, including institutional policies, workplace environments, and cultural norms (Kilanowski, 2017).

The SEM categorizes these influences into four interrelated levels (Kilanowski, 2017). In this scoping review, they corresponded to the individual nurse (microlevel), including nurses' beliefs and attitudes; the hospital environment (mesolevel), including intrapersonal interactions between nurses and PWUS; hospital support (exolevel), including supporting nurses caring for PWUS; and societal influence (macrolevel), including past and current political climates. This framework facilitated a nuanced understanding of the factors influencing nursing practice (see Figure 2.2).

Figure 2.2

Application of Bronfenbrenner's SEM to the Scoping Review Findings
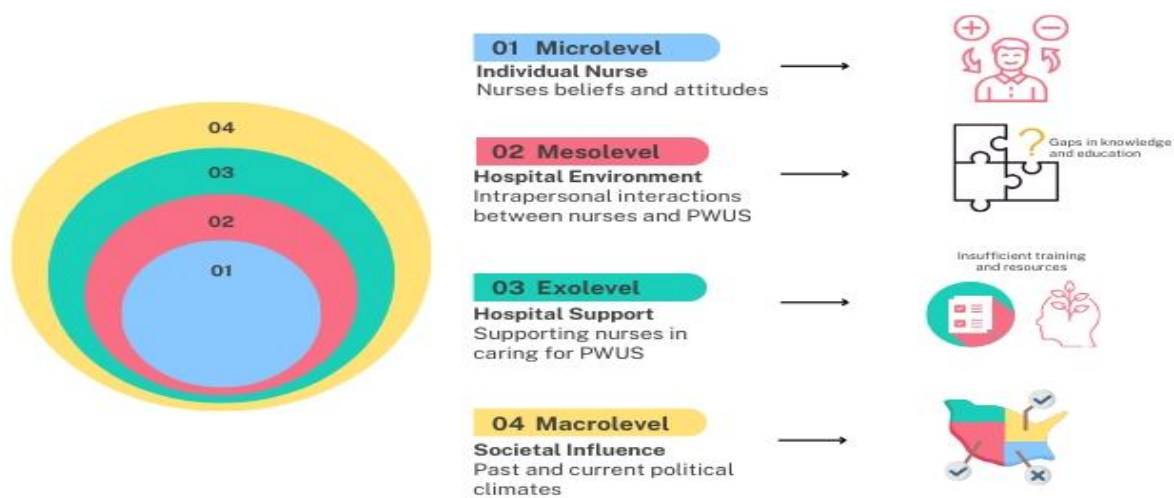
Microlevel: Individual Nurses' Beliefs and Attitudes

Negative Attitudes Toward PWUS

Stigmatizing and Stereotyping. A significant body of literature has underscored the presence of stigmatizing and stereotyping attitudes among nurses toward PWUS (Antill Keener et al., 2023; Babiarczyk et al., 2024; Chozom et al., 2021; Hakala et al., 2020; Horner et al., 2019; Kratovil et al., 2023; Molina-Mula et al., 2018). For instance, Molina-Mula et al. (2018) found that 80.1% of the nursing participants in their study believed that individuals who consumed alcohol led unpleasant lives, and 61.9% associated these patients with poor health outcomes. Similarly, Babiarczyk et al. (2024) reported that the nurses in their study expressed frustration that patients with alcohol use disorder were occupying beds intended for more acutely ill patients. Hakala et al. (2020) found that nurses frequently doubted the ability of PWUS to make meaningful lifestyle changes.

Horner et al. (2019) highlighted the ways in which nurses often viewed other patients as more critically ill and deserving of greater attention, reinforcing the perception that PWUS were less worthy of care. Several researchers have described PWUS as difficult; demanding (Antill Keener et al., 2023; Hakala et al., 2020; Johansson & Wiklund-Gustin, 2016; Morgan, 2014); impulsive; and aggressive (Chozom et al., 2021). Some nurses in previous studies labeled these patients as drug seekers (Morgan, 2014) or perceived them as inherently defensive (Horner et al., 2019). Kratovil et al. (2023) further emphasized the ways that some nurses openly acknowledged their judgemental attitudes toward PWUS. Horner et al. (2019) also noted that self-identified stigma toward opioid use created a cycle of distrust that negatively impacted the quality of care.

Fear for Personal Safety. Concerns about personal safety were a prominent theme in previous research influencing nurses' reluctance to care for PWUS (Antill Keener et al., 2023; Hakala et al., 2020; Horner et al., 2019; Menard-Kocik & Caine, 2021; Molina-Mula et al., 2018; Neville & Roan, 2014). Patients with substance use difficulty often were described as aggressive, manipulative, and uncooperative (Antill Keener et al., 2023; Babiarczyk et al., 2024; Hakala et al., 2020; Horner et al., 2019; Johansson & Wiklund-Gustin, 2016; Mahmoud et al., 2021, 2023; Neville & Roan, 2014). The fear of potential violence also was identified as contributing to nurses' burnout (Antill Keener et al., 2023; Hakala et al., 2020; Horner et al., 2019; Johansson & Wiklund-Gustin, 2016; Neville & Roan, 2014) and heightened concerns over drug diversion, exposure to drug paraphernalia, and the presence of unauthorized visitors (Antill Keener et al., 2023).

To mitigate these risks, the nurses in the aforementioned studies employed various strategies, including monitoring signs of patient agitation (e.g., fist clenching, nervousness); carrying personal alarms; and avoiding potential weapons such as scissors (Hakala et al., 2020).

Many relied on security personnel to manage high-risk behaviours (Hakala et al., 2020; Horner et al., 2019), further illustrating the significant impact of safety concerns on patient care.

Distrust. Another theme in the literature was the perceived lack of honesty among PWUS regarding their substance use, leading to challenges providing effective care (Hakala et al., 2020; Shaw et al., 2016). Antill Keener et al. (2023) found that inconsistent or false information from patients complicated the ability of nurses to establish and maintain therapeutic relationships.

Moral Distress. Nurses in previous studies frequently reported experiencing moral distress when providing care to PWUS, particularly when their ethical duty to offer compassionate care conflicted with internal biases, external stigma, or safety concerns (Antill Keener et al., 2023; Hakala et al., 2020; Munoz et al., 2021; Shaw et al., 2016). Some nurses struggled with feelings of frustration over frequent relapses and readmissions, leading to emotional exhaustion and a sense of powerlessness (Chozom et al., 2021; Hakala et al., 2020; Shaw et al., 2016). Others faced ethical dilemmas related to pain management, fearing potential legal repercussions from either undertreating or overprescribing medication (Morgan, 2014; Neville & Roan, 2014). This moral distress was particularly evident in the perinatal care setting, where nurses expressed concern for both mothers and their infants (Shaw et al., 2016). The participants in Shaw et al.'s (2016) study voiced apprehensions about mothers' ability to provide adequate care postdischarge, particularly in managing neonatal withdrawal symptoms and preventing neglect.

Positive Attitudes of Nurses Toward PWUS

Although negative attitudes were prevalent, some researchers have highlighted instances of positive attitudes among nurses, particularly in the maternal and neonatal care settings

(Menard-Kocik & Caine, 2021; Munoz et al., 2021; Shaw et al., 2016). Nurses caring for pregnant and postpartum women who used substances, as well as infants with neonatal abstinence syndrome, expressed greater compassion and a commitment to providing specialized care. Menard-Kocik and Caine (2021) found that nurses viewed pregnant women facing substance use challenges as particularly vulnerable, emphasizing the importance of recognizing personal biases and fostering a nonjudgemental environment. However, concerns regarding infant safety persisted (Menard-Kocik & Caine, 2021).

Similarly, Shaw et al. (2016) reported that in-patient obstetric nurses made efforts to deliver optimal care, despite their own biases. In Munoz et al.'s (2021) study, 80% of maternity nurses agreed that mothers who used substances faced significant challenges but could recover from addiction. Over half of the participants also acknowledged the potential of these mothers to be effective parents (Munoz et al., 2021). Beyond perinatal care, some nurses in Chozom et al.'s (2021) study expressed positive attitudes toward patients with alcohol use disorders. Chozom et al. found that certain nurses enjoyed providing care to individuals who consumed alcohol, recognizing that they sought hospital care when they were suffering and in need of support.

Correlates of Positive Attitudes. Some researchers have identified factors associated with more positive attitudes toward PWUS. For example, nurses with personal connections to substance use, whether through family, friends, or colleagues, have tended to exhibit greater empathy and motivation to work with this patient population (Hyde et al., 2024; Mahmoud et al., 2021, 2023). Additional correlates of positive attitudes have included working in specialized units; higher levels of education (Babiarczyk et al., 2024; Chozom et al., 2021); formal education on substance use (Chozom et al., 2021; Hyde et al., 2024; Mahmoud et al., 2023); and cultural norms (Chozom et al., 2021). Gender differences also were noted. Molina-Mula et al. (2018)

reported that male nurses exhibited higher rejection toward patients with alcohol use disorders than female nurses did, whereas Mahmoud et al. (2023) found that male nurses expressed greater motivation to care for PWUS.

Mesolevel: Hospital Environment, Intrapersonal Interactions Between Nurses and PWUS

Gaps in Knowledge and Education Surrounding Substance Use

Many nurses surveyed in the reviewed articles identified gaps in knowledge and education about substance use as a key factor contributing to negative attitudes toward caring for PWUS (Antill Keener et al., 2023; Neville & Roan, 2014; Shaw et al., 2016). The results of several studies indicated that increased education on substance use led to greater motivation to work with these patients. For example, the nurses in Mahmoud et al.'s (2023) study who felt knowledgeable about the causes and effects of drug use were more confident performing their duties and providing appropriate patient information. Researchers such as Chozom et al. (2021) have found that nurses who had more experience caring for PWUS in the hospital setting manifested higher motivation and delivered better care. Education from various sources, including formal training programs, also increased the motivation to care for PWUS (Chozom et al., 2021; Mahmoud et al., 2023).

However, despite the clear benefits of education, many nurses have continued to feel inadequately trained (Chozom et al., 2021; Kratovil et al., 2023; Neville & Roan, 2014). For example, Kratovil et al. (2023), who conducted their study in the United States, found that although 96% of their nurse participants had received some training on substance use, nearly half had attended only optional or mandatory workplace training. Furthermore, 99% of the participants in their study also expressed the need for further training to enhance their knowledge and skills caring for PWUS in the hospital setting.

Even in studies indicating that nurses' knowledge was limited, such as the study

conducted by Hyde et al. (2024), where only 27.8% of participants reported having a working

knowledge of substance abuse, there was still a strong desire among the participants for more

education. In their study, 53.3% of the participants expressed an interest in learning more about

alcohol-related issues to improve their responses to affected patients. Even in studies with

positive attitudes, such as that of Chozom et al. (2021), the nurses identified a lack of knowledge

and competence in caring for PWUS in the hospital setting and expressed a desire for further

education.

The articles on nurses in obstetrics and maternity units identified similar trends. All study

participants expressed the need for increased knowledge about opioid use among pregnant or

parenting women, including professional development and education on resources for rural

mothers and families (Menard-Kocik & Caine, 2021; Shaw et al., 2016). Nurses also emphasized

incorporating substance use education into routine prenatal care (Shaw et al., 2016).

Despite the nurses in their study self-reporting high levels of substance use knowledge

(6.9/8), Munoz et al. (2021) found that the nurses still desired further education caring for

women using substances during pregnancy and postpartum. However, when their knowledge was

tested objectively, the nurses scored only 63% on a 28-item test, with the lowest scores on

factors contributing to substance use (Munoz et al. (2021). In addition, in a study conducted by

Nusbaum and Farkash (2022), 28% of the nurse participants underestimated the harms of opioid

use when compared to other addictions. Many nurses felt unprepared to care for these patients,

noting that knowledge and perceived competence required different approaches to training

(Munoz et al., 2021). Areas where nurses felt underprepared included understanding the effects

of substance use on fetal development and pain management, and conducting risk assessments or

identifying overdose symptoms (Antill Keener et al., 2023; Chozom et al., 2021; Menard-Kocik & Caine, 2021; Morgan, 2014; Neville & Roan, 2014).

Nurses' Concerns About Managing Pain of PWUS. A common theme across the reviewed articles was the challenge that nurses faced managing the pain of PWUS in the hospital setting (Antill Keener et al., 2023; Horner et al., 2019; Morgan, 2014; Neville & Roan, 2014; Shaw et al., 2016). Antill Keener et al. (2023) identified pain management as the primary difficulty, with some nurses in their study expressing frustration, feeling that no interventions were effective. Morgan (2014) specifically examined nurses' attitudes toward the pain of PWUS in the hospital setting and found negative associations between these attitudes and perceptions of substance use. Some nurses reported difficulty with patients requesting pain medication, describing experiences of being yelled at or insulted, both of which contributed to their negative attitudes (Morgan, 2014). The participants in Morgan's study also noted that PWUS in the hospital setting often had a higher tolerance to pain medications, which could have led to greater pain when insufficient medication was administered.

However, managing this pain was complicated by some nurses' concerns about enabling drug addiction if opioids were prescribed (Horner et al., 2019; Morgan, 2014). This concern often manifested in labelling patients as drug seekers based on behaviours such as requesting specific pain medications or additional doses, a practice that Morgan (2014) found had a negative impact on the quality of care by deprioritizing patients' legitimate pain needs. This tension between managing legitimate pain needs and navigating concerns about substance use not only impacted nurses' attitudes but also influenced their overall approach to pain management, as highlighted in other studies.

Some nurses in the studies conducted by Morgan (2014) and Neville and Roan (2014) expressed skepticism toward all patients requesting pain medication, questioning the legitimacy of these requests based on past interactions with PWUS in the hospital setting. Similarly, Antill Keener et al. (2023) and Horner et al. (2019) found that nurses had difficulty believing that PWUS were genuinely in pain. Some nurses also reported feeling as though they were contributing to the problem by administering pain relief (Neville & Roan, 2014). A key theme in Neville and Roan's study was nurses feeling manipulated by patients with substance use difficulties, fostering a general sense of distrust that affected their pain management approach. In Shaw et al.'s (2016) study, the nurses emphasized the need for more education and training to manage the pain of pregnant women and mothers who used opioids. They believed that enhanced knowledge would improve their ability to provide appropriate pain relief.

Exolevel: Lack of Hospital Support for Nurses Caring for PWUS

The final theme emerging from the literature was the lack of hospital support for nurses caring for PWUS in the hospital setting (Antill Keener et al., 2023; Horner et al., 2019; Kratovil et al., 2023; Morgan et al., 2014; Nusbaum & Farkash, 2022). The results of many studies indicated that nurses felt that their workplaces offered insufficient training and resources, both of which they believed could improve the care of patients and families affected by substance use difficulties (Antill Keener et al., 2023; Horner et al., 2019; Kratovil et al., 2023; Morgan, 2014; Nusbaum & Farkash, 2022). For example, Antill Keener et al. (2023) found that nurses emphasized the need for resources such as pain scales specifically designed for PWUS, alternative pain management options, designated mental health and addiction units, patient liaisons, and nurse-led care protocols.

Similarly, Morgan (2014) identified significant barriers to the adequate pain management of PWUS in the hospital setting, including insufficient staffing, high patient acuity, documentation challenges, restrictive policies, and a lack of alternative pain management resources. Morgan's results were echoed by Kratovil et al. (2023), who identified unmet needs as a central theme, with nurses reporting a lack of crucial resources like mental health services, aftercare, and ongoing education. Although some nurses acknowledged the benefits of collaborating with physicians, psychiatric nurses, and social workers, the availability and number of these team members often were insufficient, particularly in emergency departments. The nurses in Hakala et al.'s (2020) study also pointed to the need for more efficient pathways to ensure follow-up care for their patients. In addition, Nusbaum and Farkash (2022) found that hospital support for managing substance use difficulties was virtually nonexistent, with 77.5% of the participants in their study stating that hospital protocols did not guide addressing substance use-related issues.

Discussion

To ensure continuity between the Results and Discussion sections, Bronfenbrenner's (1979) SEM was used to structure the discussion and associated recommendations. By applying this framework, the discussion outlines targeted recommendations at each level addressing the key factors influencing nursing practice and patient care for PWUS.

Microlevel: Individual Nurses' Beliefs and Attitudes

This scoping review identified 17 global studies that examined nurses' attitudes toward PWUS in the hospital setting. The results of the studies revealed a concerning trend: The participating nurses often held negative attitudes toward PWUS, reflecting similar biases observed among other health care professionals, including physicians and social workers

(Dhanani & Franz, 2021; Lawrence et al., 2022; Richelle et al., 2022; Temenos et al., 2024). These attitudes, however, were not uniform. Some nurses exhibited strong biases that significantly impacted the quality of care that they provided (Babiarczyk et al., 2024), whereas others expressed compassion and concern for patients struggling with addiction, despite experiencing discomfort in these interactions (e.g., Morgan, 2014; Shaw et al., 2016).

Several factors were found to shape nurses' attitudes toward PWUS. The work in specialized units, personal experiences, and cultural norms emerged as positive influences, fostering more empathetic and informed perspectives (Chozom et al., 2021; Mahmoud et al., 2023; Munoz et al., 2021). However, critical gaps remained in the literature. Only limited research exploring the impact of contextual factors such as workplace conditions (e.g., workload) or individual nurse burnout, issues that have only been exacerbated since the COVID-19 pandemic, was found. Future researchers should examine these factors to better understand the root causes of these perceptions and identify strategies to address them.

Understanding these attitudes is crucial because they extend beyond individual nurse-patient interactions and can significantly influence patient trust, engagement in care, and overall health outcomes (Chan Carusone et al., 2019; McNeil et al., 2014; Strike et al., 2020). However, individual attitudes do not develop in isolation. They are shaped by broader systemic factors, including the hospital environment (mesolevel) and hospital support structures (exolevel). Addressing these interconnected influences is essential to fostering a more supportive and equitable care environment because changes at these levels may ultimately help to shift individual attitudes and improve patient outcomes.

Mesolevel: Hospital Environment, Intrapersonal Interactions Between Nurses and PWUS

Despite various levels of prior education and knowledge, nurses in previous studies consistently expressed a strong desire for additional training on substance use difficulties (Chozom et al., 2021; Menard-Kocik & Caine, 2021; Munoz et al., 2021; Shaw et al., 2016). Addressing this gap may require hospitals to first assess the scope of the issue within their respective settings and allocate resources accordingly for professional development. Nurses have specifically advocated for practical, hospital-based education reflecting the realities of substance use, including the opioid crisis, pharmacology, treatment options, and the recognition of withdrawal symptoms (Costello & Thompson, 2015; Nusbaum & Farkash, 2022).

Beyond clinical knowledge, education also must focus on addressing stigma and promoting equitable care. Incorporating guest speakers with lived experiences into continuing education activities and providing cultural safety training can help to challenge biases and improve patient interactions (Curtis et al., 2019; Goodman et al., 2017; Lavalley et al., 2020; Pauly et al., 2015). However, these efforts must extend beyond continuing education for practicing nurses. Prelicensure nursing curricula currently fail to equip students with the skills and compassion necessary to care for PWUS in the hospital setting (Monks et al., 2013; Nusbaum & Farkash, 2022; van Boekel et al., 2013). Gagnon et al. (2020) found that substance use education in Canadian nursing programs continues to be severely lacking, with 43% of students receiving only 1 to 5 hours of instruction and 20% receiving none at all. To bridge this gap, academic institutions must adopt a more comprehensive approach, integrating evidence-based literature, harm reduction principles, and evolving best practices into their curricula (Gagnon et al., 2020).

One critical area requiring greater focus is pain management. Increasing both nursing and physician knowledge in this area could help nurses to navigate complex patient interactions with greater confidence and improve overall care. Jakubowski et al. (2023) found that many clinicians lacked experience and training initiating medication for opioid users, with many seeking support from addiction specialists. Just as nurses have reported challenges managing pain for PWUS, patients themselves frequently have described having their pain dismissed, their need for medication overlooked, and their requests ignored because of assumptions of drug-seeking behaviour (Horner et al., 2019; Strike et al., 2020). These experiences can lead to frustration, mistrust, and potentially premature discharge from care, further reducing opportunities for nurses to address patients' broader health needs (Monks et al., 2013; Strike et al., 2020). Enhancing communication between nurses and physicians around pain management strategies while also equipping nurses with tools to advocate for their patients could foster more consistent and compassionate care that would help to create a safer and more supportive environment for patients and staff, improve treatment outcomes, and reduce preventable discharges.

Exolevel: Lack of Hospital Support for Nurses Caring for PWUS

Hospitals play a crucial role in supporting nurses who care for PWUS, yet this review highlighted a persistent lack of institutional support in the hospital setting (Antill Keener et al., 2023; Horner et al., 2019; Kratovil et al., 2023; Morgan, 2014; Nusbaum & Farkash, 2022). To address this gap, hospitals must establish clear, patient-centred policies that define the role of nurses when substance use is identified, outline safe handling and disposal procedures, and provide strategies for managing patient and visitor behaviours. Policies should avoid punitive measures such as relying on security as a first response and instead prioritize deescalation techniques, reserving security involvement for last-resort situations (Allen et al., 2020; Lennox et

al., 2021; Martin et al., 2023). Multidisciplinary teams, including patients with lived experiences, should guide policy development to ensure that it reflects clinical and patient perspectives (Horner et al., 2019; Lennox et al., 2021; Martin et al., 2023). Broad endorsement from nursing, legal, leadership, and security teams also has been identified as essential to promote consistent messaging and institutional support (Lennox et al., 2021; Martin et al., 2023).

Successful policy implementation requires frontline nurse involvement to foster support, along with comprehensive education on policy measures, structured scripts to address substance use, and ongoing evaluations to identify and mitigate any disparities across patient populations (Hyshka et al., 2019; Martin et al., 2023). Policies should be included in staff orientation and reviewed annually to ensure their continued relevance and effectiveness (Hyshka et al., 2019; Lennox et al., 2021). Ultimately, sustainable change depends on institutions embracing harm reduction principles and pragmatic care approaches, ensuring that nurses as well as patients receive the support that they need.

Implementing harm reduction strategies in the hospital setting could enhance nurses' knowledge and help to reduce negative attitudes toward patients with substance use difficulties (Dogherty et al., 2022; Jafari et al., 2015; Perera et al., 2022). Perera et al. (2022) discussed the effectiveness of a harm-reduction strategy that incorporated policy implementation, equipment provision, and leadership and staff engagement. This approach not only reduced stigma but also increased clinicians' willingness to collaborate with addiction care teams, ultimately improving patient satisfaction. Similarly, Dogherty et al. (2022) examined a nurse-led overdose prevention site in Vancouver, successfully implemented through collaboration between nursing staff and hospital leadership. Their findings suggest that integrating harm reduction initiatives in the hospital setting can provide patients and clinicians with essential resources, helping to bridge

gaps in care while supporting staff in managing substance use-related challenges. These interventions operate at the exolevel; however, they are deeply interconnected with the macrolevel paradigm of harm reduction, shaping broader systemic approaches to substance use care.

Macrolevel: Societal Influence, Past and Current Political Climates

When hospitals implement harm reduction interventions and adopt the harm reduction philosophy, patient care improves significantly (Goff et al., 2024; Perera et al., 2022). This shift fosters a nonjudgemental and compassionate approach that prioritizes safety, dignity, and active engagement in care (Fraimow-Wong et al., 2024; Perera et al., 2022). For nurses, this transformation reduces stigma; builds clinical confidence in managing substance use challenges; and promotes collaborative, patient-centred care (Fraimow-Wong et al., 2024; Goff et al., 2024; Perera et al., 2022).

However, the broader political landscape presents significant challenges to this progressive approach. For instance, the provincial government of Ontario recently made headlines by cutting funding for safe consumption sites, signaling a reversal in its support for harm reduction measures (Government of Ontario, 2024). This decision sparked significant controversy, with advocates arguing that such sites are crucial for reducing overdose deaths and providing essential support for individuals facing substance use challenges. The move highlighted the ongoing debate about the balance between public health strategies and fiscal priorities in addressing the opioid crisis.

Other political climates, particularly in the United States, where many of the studies were conducted, also are embroiled in controversy surrounding substance use. These issues play a significant role in shaping the ways that PWUS are perceived and treated. Yet, the current

literature on nurses' attitudes toward PWUS has largely overlooked these broader societal

influences, especially the political context. This ongoing gap in the literature means that the

impact of political factors on substance use care has not been captured or measured adequately

by extant methods. Each country, province, or region brings unique perspectives and challenges,

further complicating the implementation of harm reduction strategies and care.

Additional Gaps Noted in the Literature

As mentioned previously, the majority of the articles had been published in the United

States, with only a limited number of studies from other countries. Further investigation into

studies from diverse geographic locations could enrich the literature significantly, given the

variations in substance use rates and health care systems across different regions. Many of the

hospitals examined in these studies were situated in large urban centres, which may have led to

an underrepresentation of patients from northern, rural, and remote areas. The unique challenges

faced by these regions, such as geographic isolation, harsh weather conditions, complex

population health issues, and economic hardship (Office of the Auditor General of Ontario,

2023), along with staffing shortages that often result in overextended nurses (Hall et al., 2016;

Stemmer et al., 2022), may influence nurses' attitudes in ways that are different from the

attitudes of their urban counterparts.

Moreover, all of the studies had various methodological approaches and tools to measure

and/or understand nurses' attitudes. The most commonly used measurement tools in the

quantitative studies, the Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ;)

and the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Watson et al., 2007), were

developed several decades ago and may no longer be an accurate reflection of current nursing

attitudes. Given the significant advancements in the field of substance use, including the

adoption of person-centred (PC) language, harm reduction approaches, and evolving perspectives on addiction, these tools may be outdated. The literature has suggested that psychometric properties of both the AAPPQ and DDPPQ (Mahmoud et al., 2021, 2023; Terhorst et al., 2023) may be inconsistent, indicating the need for revisions or the development of more contemporary measures. Similarly, the qualitative literature varied in methodological approaches and in the structure and content of interviews, making it difficult to compare findings across studies or establish a cohesive understanding of nurses' attitudes. It is crucial for future researchers to identify or create assessment tools better aligned with current attitudes, practices, and the evolving landscape of substance use care. Revisiting and updating these instruments would ensure a person-centred approach to measuring nurses' attitudes toward PWUS.

Limitations

This scoping review was conducted to explore nurses' attitudes toward PWUS in the hospital setting. Several limitations were identified. First, the researchers of this review focused on the results of each study instead of choosing to conduct a formal appraisal. The methods of many of the included studies were described poorly by the respective researchers, and the reliability and validity of the questionnaires used often were not reported. In addition, the content of the questionnaires assessing nurses' attitudes was frequently unclear, which highlighted the lack of systematic approaches for measuring nurses' attitudes toward PWUS in the hospital setting. In addition, most studies provided only a snapshot of nurses' attitudes at a single point in time, with no longitudinal data to establish causal relationships. Longitudinal research could investigate the ways that nurses' attitudes toward PWUS evolve over time, identifying factors that drive these changes and establishing causal relationships between attitudes and specific interventions or experiences in the hospital setting. Finally, as with any scoping review, there

was the possibility of human error, such as missed articles that were the result of search or indexing mistakes, delays in indexing, or unclear or incorrect titles and abstracts.

Conclusion

This scoping review underscored the widespread issue of negative attitudes among nurses toward PWUS in the hospital setting. Key factors, contextualized using Bronfenbrenner's (1979) SEM, contributing to these negative attitudes included gaps in knowledge and education surrounding substance use, concerns about pain management, and inadequate hospital support. Addressing these challenges through targeted professional development and enhanced hospital support is crucial to foster more compassionate and effective nursing practices. By prioritizing these efforts, hospitals can improve nurse-patient relationships and ultimately enhance health outcomes for PWUS. Despite the global urgency of the substance use crisis, the limited body of evidence has called for further research to inform these initiatives. Future researchers should consider exploring other factors contributing to nurses' attitudes (e.g., workload and burnout) and perspectives outside of the United States, particularly in northern, rural, and remote areas, and focus on developing reliable, valid tools to measure nurses' attitudes. Ultimately, addressing the root causes of negative attitudes and investing in research and education are essential steps toward creating a more compassionate, informed, and effective health care environment for nursing staff and patients alike.

Table 2.1

Inclusion and Exclusion Criteria

	Inclusion criteria	Exclusion criteria
Focus	Studies on nurses' attitudes toward PWUS in the hospital setting	Any other topic
Substance	Drug(s) and/or alcohol	Tobacco, marijuana
Context	Acute care hospital setting	Other settings (e.g., community, outpatient)
Population	Nurses (i.e., RNs, RPNs)	Other health professionals (i.e., physicians, residents, social workers, etc.)
Language	English	Other languages

Table 2.2

Data Extraction

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
Molina-Mula et al. (2018); *International Journal of Environmental Research and Public Health*	Balearic Islands, Spain	Assess emergency and mental health nurses' attitudes and perceptions towards alcoholics.	Descriptive – cross-sectional	167; mental health and emergency, five hospitals	Questionnaire; Seaman-Mannello Scale	76% of the nurses considered alcoholics to be ill individuals, however tendency not to feel comfortable working with them. Negative personal attitudes towards alcohol consumption were predominant.
Mahmoud et al. (2023); *Substance Abuse*	Southwestern Pennsylvania, USA	Examine the association between nurses' demographics, personal/ professional attitudes, and motivation to care for patients with alcohol use problems.	Descriptive – cross-sectional	234, mental health/emergency/ OBGYN/medical-surgical, four hospitals	Questionnaire; adapted AAPPQ	Factors increasing motivation to work with SU individuals: personal or familial experience with SU, knowledge/continuing education about SU, previous experience with this patient base. Factors decreasing motivation: perceived patients as dangerous, fear, holding the individual responsible and viewing SU as a disease.
Babiarczyk et al. (2024); *Nursing in the 21st Century*	Podbeskidzie, Poland	Assess attitudes of nurses caring for alcohol use disorder (AUD) patients.	Descriptive – cross sectional, quantitative	120, all units, tertiary hospital	Questionnaire; self-constructed	More frequent contact with AUD patients = more aggression toward patients. Majority agreed with statements categorizing AUD patients as "blocking beds", "rude and

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
						aggressive", responsible for their health problems and less cooperative. Length of time worked decreased agreement with these statements. Most frequent feelings = resentment, anger, and fear.
Mahmoud et al. (2021); *Substance Abuse*	Southwestern Pennsylvania, USA	Examine association between nurses' demographics, personal/ professional attitudes and motivation to care for patients with opioid use problems.	Descriptive – correlational	234, mental health/emergency/ OBGYN/medical-surgical, four hospitals	Questionnaire; Adapted AAPPQ	Factors increasing motivation to work with opioid-use individuals: personal or familial experience with opioid use, familiarity with this issue, previous experience with these patients, and education. Factors decreasing motivation: perceived patients as dangerous, responsible for their situation, and fear of these patients.
Neville & Roan (2014); *Journal of Nursing Administration*	Northeast Corridor, USA	Investigate RN perceptions of caring for hospitalized medical-surgical patients with substance abuse/dependence.	Descriptive – nonexperimental	24, medical-surgical/neurological-orthopedic/oncology units, community medical centre	Questionnaire; responded in writing to 2 research questions	4 main themes identified: ethical duty of care, negative perceptions of caring for patients with substance abuse/dependence, need for education, and sympathetic concern. Negative perceptions included anger, distrust, and fear for safety.

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
Keener et al. (2023); *Journal of Addictions Nursing*	Appalachian Mountains region, USA	Describe the perceptions of nurses who provided care for patients with substance use disorder (SUD).	Descriptive – cross sectional, content analysis	488, all units, large academic medical centre	Questionnaire; self-constructed	Challenges identified: managing pain of patients with SUD, safety, lack of collaboration, distrust. Emotional responses: feeling defeated/burnt out, difficulty showing compassion when patients incompliant, patients described as manipulative/demanding Resources Needed: education, pain scales, designated units, patient liaisons, and community resources.
Shaw et al. (2016); *American Journal of Maternal Child Nursing*	Washington State, USA	Explore nurses' perceptions of caring for pregnant and parenting women with a history of opioid misuse	Grounded theory approach	8, obstetrics, two large urban birthing centres	Semistructured interviews	4 themes: Needing more knowledge (education on opioid misuse and caring for these patients), Feeling challenged (struggle of providing good care while dealing with their biases), Expressing concern for mothers and infants (safety of the newborns), Knowing the truth (feeling like they don't receive the whole truth from patients)
Morgan (2014); *Pain Management Nursing*	USA	Expand knowledge about nurses' attitudes and interactions with patients with SUD who are in pain.	Grounded theory approach	14, all units, urban public health hospital	Interview – semi structured with interview guide	3 themes identified: Inadequate responses to pain management, Delayed response to pain management and difficulties with administrative personnel

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
						and their attitudes/perceptions in pain management in patients with SUD.
Kratovil et al. (2023); *American Journal of Nursing*	USA	Explore hospital nurses' self-assessed knowledge and attitudes about caring for patients who use substances.	Observation-al/cross-sectional, mixed methods	691, medical–surgical units, ICUs, EDs, mental health units, and mother–baby units, various hospitals recruited though Facebook	Questionnaire ; Drug and Drug Problems Perceptions Questionnaire	99% participants indicated the need for additional training for SUD-related knowledge and skills 4 Themes: Unmet needs (resources, training, education), personal experiences inform care (familial SUD influence perceptions of SUD), personal beliefs (majority saw SUD as a choice), judgemental attitudes (toward patients with SUD)
Hakala et al. (2020); *Journal od Addictions Nursing*	Finland	Describe nurses' skills, knowledge of care, and attitudes toward the care of patients with alcohol intoxication.	Content analysis-qualitative	six, sobering unit in ED, central hospital	Interviews	5 themes: Skills to discuss alcohol use (majority nurses occasionally or never asked about alcohol use), Safety skills (experiences of violent behaviour), Teamwork skills (collaboration with other nurses and physicians important), Skills organizing follow-up (majority said difficult to arrange), Attitudes (difficult caring for patients, more education needed, seeing alcohol use as illness improved attitudes)

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
Hyde et al. (2024); *Journal of Addictions Nursing*	Alberta, Canada	Explore the knowledge, attitudes, and perceptions of acute care nurses caring for patients with AUD.	Descriptive - cross-sectional, exploratory	93, in-patient medicine (7 units) and acute care (6 units), large hospitals over 5 geographic areas	Questionnaire	28% described working knowledge of AUD, 53% indicated interest in understanding AUD, 30% stated they would want to work with AUD patients. More education about AUD patients significantly increased feelings of knowledge about AUD and satisfaction about the care nurses give to AUD patients.
Nusbaum (2022); *Journal of Nursing Scholarship*	Israel	Characterizing Israeli nurses' knowledge, attitudes, and perceptions about opioid misuse and their sense of self-efficacy in managing misuse.	Descriptive - cross-sectional	414, all units, various hospitals recruited through Facebook	Questionnaire	47% reported interaction with patient using opioids in past year. 85% felt they lacked training to manage misuse. 85.5% said they would readily care for misusers. 40% had no opinion or agreed that they don't accept or understand addiction. 75.6% reported insufficient institutional support. Most of the participants demonstrated low knowledge levels with a total mean score of 63.1%.
Chozom et al. (2021); *Journal of Nursing Practice*	Bhutan	Explore the prevailing attitudes of nurses towards AUD patients, and to further explore the	Thematic analysis, qualitative	15, all units, large hospital in country's capital	Interviews	4 themes: Attribution beliefs (belief that alcohol use is due to problems in life), Providing care (nurses enjoy helping AUD patients in their time of need), Factors influencing

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
		factors influencing these attitudes.				attitudes (readmissions, lack of knowledge, challenges changing patients views, aggressive behaviour), Experience (senior staff better with patients).
Horner et at. (2019), *PLOS ONE*	Boston MA, USA	Assess the attitudes, perceptions, and training needs of nurses in the in-patient setting when caring for patients with opioid use disorder.	Thematic analysis	22, all units, large urban academic medical centre	Interviews	6 themes: Stigma (acknowledgement that this is prevalent and impacts the health care received), Safety /Security (personal safety concerns of female nurses–rely on security), Assessing / treating pain (nurses had issues believing pain and feeling like they are elevating the problem), communication (positive between providers), burnout (common with this patient base), opportunities for change (standardized care, emotional support and education.)
Johansson & Wiklund-Gustin (2015), *Scandinavian Journal of Caring Sciences*	Sweden	Describe how nurses' working in in-patient psychiatric care experience caring encounters with patients suffering from substance use disorder (SUD).	Qualitative content analysis	six, psychiatric unit, psychiatric hospital	Reflective dialogues	4 themes: Balance between understanding and frustration, Being supportive while maintaining order, Remaining observant of problems while focusing on health of patients, Caring for patients while

Author(s) yr. of publication journal	Country of origin	Aim/Purpose	Study methodology	Population, area of work, hospital description	Tools/ Approach to examine nurses' attitudes	Outcome(s)
						thinking of one's own safety. Common theme: Multifaceted vigilance.
Menard-Kocik & Caine (2021), *Canadian Journal of Nursing*	Canada	Explore obstetrical nurses' perspectives toward caring for pregnant women who use illicit substances in a large inner-city hospital in Western	Thematic content analysis	18, obstetric unit, large inner-city urban hospital	Interviews	4 themes: Services and care (complexity in care for these patients), Stigma and discrimination (negative personal biases identified), Coping mechanisms (internal struggle to provide holistic care identified), Recommendations for practice (continuing education).
Munoz et al. (2021); *American Journal of Maternal Child Nursing*	USA	Determine knowledge and attitudes of nurses and ancillary team members about addictive substance use by women during pregnancy and postpartum.	Descriptive - parametric and nonparametric	109, women's service areas, Magnet community hospital	Questionnaire	Mean total knowledge score 6.8/8, nurses among highest knowledge scores. 80% agreed mothers who use drugs have challenges and can successfully recover. 55% agree mothers who use drugs can be good mothers. Less than half agreed they knew enough about SUD.

Note. The original terminology used to describe individuals who use substances has been retained in the data extraction tables to accurately reflect the language used in the source materials. This terminology has not been adapted to the person-centred language employed throughout the manuscript

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APPENDIX C: PRISMA-SCR CHECKLIST

Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	1
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	1-2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	2, 3
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	2, 3
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	4
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	4, 26
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	4, 5
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	48, 49
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	4, 5, 6
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	5
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	5, 27-33

Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	NA
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	6

1

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
RESULTS			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	6
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	27-33
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	NA
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	27-33
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	6-17
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	17-24
Limitations	20	Discuss the limitations of the scoping review process.	24,25
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	25
FUNDING			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	

JBI = Joanna Briggs Institute; PRISMA-ScR = Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

APPENDIX D: SEARCH STRATEGY

PubMed, 2014-2024, English, Peer Reviewed

Search #	Results
#1 nurse OR nurses OR registered nurses OR RPN OR LPN OR practical nurses	472,943
#2 Nurses[Mesh] OR licensed practical nurses[Mesh]	101,256
#3 #1 OR #2	472,943
#4 substance abuse OR substance use OR drug abuse OR drug addiction OR "drug use" OR alcohol use OR alcohol addiction OR alcohol	1,507,345
#5 Substance-Related Disorders[Mesh] OR "substance abuse detection[Mesh] OR "substance abuse, intravenous[Mesh]	327,065
#6 #4 OR #5	1,507,345
#7 nurses attitudes OR nurse perceptions OR nurse opinions OR nurse views	103,232
#8 Attitude of health personnel[Mesh]	173,393
#9 #7 OR #8	232,326
#10 #3 AND #6 AND #9	2,955
#11 Limited to 2014-2024 and in English	1,158

Note. PubMed does not have a Peer Review limiter

CINAHL (EBSCO), 2014-2024, English, Peer Reviewed

Search #	Results
#1 nurse OR nurses OR registered nurses OR RPN OR LPN OR practical nurses	530,059
#2 MH Nurses OR MH registered nurses OR MH practical nurses	108,470
#3 #1 OR #2	530,059
#4 substance abuse OR substance use OR drug abuse OR drug addiction OR drug use OR alcohol use or alcohol addiction OR alcohol	226,394
#5 MH substance abuse OR MH substance use disorders	80,760
#6 #4 OR #5	226,394
#7 nurses attitudes OR nurse perceptions OR nurse opinions OR nurse views	44,257
#8 MH Nurse attitudes	41,372
#9 #7 OR #8	44,257
#10 #3 AND #6 AND #9	605
#11 #11 Limited to 2014-2024, peer reviewed and in English	237

PsycINFO (ProQuest), 2014-2024, English, Peer Reviewed

Search #	Results
#1 nurse OR nurses OR registered nurses OR RPN OR LPN OR practical nurses	73,595
#2 MAINSUBJECT.EXACT(Nurses)	30,567
#3 #1 OR #2	73,595
#4 substance abuse OR substance use OR drug abuse OR drug addiction OR drug use OR alcohol use OR alcohol addiction OR alcohol	324,304
#5 MAINSUBJECT.EXACT("substance abuse and addiction measures") OR MAINSUBJECT.EXACT("substance use disorder")	11,105
#6 #4 OR #5	324,304
#7 nurses attitudes OR nurse perceptions OR nurse opinions OR nurse views	33,548
#8 MAINSUBJECT.EXACT(health personnel attitudes) OR MAINSUBJECT.EXACT(attitudes)	46,437
#9 #7 OR #8	72,002
#10 #3 OR #6 OR #9	1,499
#11 Limited to 2014-2024, peer reviewed and in English	634

Introduction to Chapter 3

In Chapter 2 (Manuscript 1), I identified a gap in the literature addressed in Chapter 3 (Manuscript 2), where the most prevalent tool used to measure attitudes did not align with contemporary societal and academic discourse for person-centred (PC) language. Presented in Chapter 3 is a psychometric evaluation examining the impact of adapting two widely used attitude measures, the DDPPQ and the AAPPQ, to incorporate PC language. The research question and analytic plan were developed in collaboration with my doctoral committee. I conducted the analysis independently, with substantial guidance and support from Dr. Bédard. I also led the interpretation and discussion of the findings, receiving constructive feedback from my committee members, Dr. Mushquash and Dr. Wood. All members of my doctoral committee contributed to the development and refinement of the manuscript, with Dr. Bédard playing a central role in guiding its progression. The final manuscript was reviewed and approved by my committee (Dr. Mushquash, Dr. Bédard, and Dr. Wood) and is currently under peer review with *Drug and Alcohol Dependence Reports*.

Abstract

Background

The Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ; Cartwright, 1980) and the Drug and Drug Problems Perception Questionnaire (DDPPQ; Watson et al., 2007) were developed decades ago to assess health care providers' attitudes toward patients who use substances (PWUS) in the hospital setting. Although reliable, the language in these tools no longer aligns with contemporary societal and academic discourse on person-centred language. Therefore, we sought to evaluate whether modifying the language in the AAPPQ and the DDPPQ to create the person-centred Alcohol and Alcohol Problems Perception Questionnaire (PC-AAPPQ) and the person-centred (PC) Drug and Drug Problems Perception Questionnaire (PC-DDPPQ) would affect their reliability, internal consistency, and factor structures when used with registered nurses (RNs) and registered practical nurses (RPNs).

Methods

In the fall of 2024, an electronic survey was distributed to 1,400 RNs and RPNs at an acute care hospital in northwestern Ontario, with 412 nurses responding (29.4% response rate). Participants were randomly assigned to complete either the original questionnaires or the revised PC versions. Confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) were conducted to assess the factor structures of both versions.

Results

CFA revealed suboptimal model fits for both the AAPPQ and the PC-AAPPQ. The best-fitting AAPPQ model was a seven-factor, 30-item model, and the PC-AAPPQ was a revised four-factor, 22-item model after EFA. CFA for the DDPPQ indicated support for the original five-factor structure, but a four-factor, 16-item model emerged after EFA for the PC version.

Conclusions

Although limited by a small sample size and data from a single setting, the findings of this study provide preliminary support that slightly modified versions of the PC-AAPPQ and PC-DDPPQ may hold promise for use with practising clinical nurses in similar contexts.

Keywords

CHAPTER 3: ADAPTING THE AAPPQ AND DDPPQ: A PSYCHOMETRIC ANALYSIS OF A PERSON-CENTRED APPROACH

Introduction

The Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ; Cartwright, 1980) and the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Watson et al., 2007) were created decades ago and have since become widely used tools for assessing clinicians' attitudes toward patients who use substances (PWUS). The AAPPQ is grounded in a theoretical framework encompassing two primary concepts: role security, comprising role adequacy, role legitimacy, and role support, and therapeutic commitment, encompassing motivation, task-specific self-esteem, and work satisfaction (Cartwright, 1980). Originally developed as a five-factor, 30-item measure with demonstrated validity and reliability (Cartwright, 1980), the AAPPQ has undergone various adaptations to suit different research contexts. For example, Gorman and Cartwright (1991) administered the original five-factor structure to health care and addiction staff, Hughes et al. (2008) modified this structure by adding items related to role support and applied it to case managers in community mental health teams, and Terhorst et al. (2013) introduced a six-factor structure for use with undergraduate nursing students. In contrast, Watson et al. (2007) adapted the DDPPQ from Cartwright's (1980) AAPPQ and initially developed it as a six-factor, 22-item measure. Subsequent analysis refined it into a five-factor, 20-item measure comprising five scales: role support**,** role legitimacy**,** role adequacy**,** role-related self-esteem**,** and job satisfaction (Watson et al., 2007). In addition, the five-factor, 20-item questionnaire has demonstrated strong validity and reliability across various studies (Mahmoud et al., 2017; Watson et al., 2007). Researchers have used the AAPPQ (Anderson & Clement, 1987; Chu & Galang, 2013; Hughes et al., 2008; Tan et al., 2022) as well

as the DDPPQ (Chu & Galang, 2013; Kratovil et al., 2023) to assess clinicians' attitudes toward PWUS, with particular foci on either individuals who drink alcohol (AAPPQ) or those who use drug/s (DDPPQ).

The AAPPQ and DDPPQ have been proven to be reliable tools, but the descriptive language used in these questionnaires was representative of the state of the field when it was developed and no longer aligns with contemporary societal and academic discourse for PC language (Mental Health Commission of Canada, 2024; National Institute on Drug Abuse, 2024; Traxler et al., 2021). PC language emphasizes prioritizing the "person" over the condition by avoiding terms that define individuals solely by their illness or behaviour (Mental Health Commission of Canada, 2024; National Institute on Drug Abuse, 2024). Stigmatizing terms such as *alcoholic* or *drug user* can perpetuate negative self-concepts, making it more difficult for individuals to view themselves independent of their conditions and potentially hindering their pursuit of personal goals (Mental Health Commission of Canada, 2024; National Institute on Drug Abuse 2024; Traxler et al., 2021).

By adopting PC language, particularly in the clinical setting, clinicians demonstrate respect, foster dignity, and contribute to reducing stigma (Mental Health Commission of Canada, 2024; National Institute on Drug Abuse, 2024). For example, the AAPPQ (Cartwright, 1980) uses terms such as *drinker* and *drinking* to describe someone who consumes alcohol, and the DDPPQ (Watson et al., 2007) employs the terms *drug user* and *drug problems* to describe individuals who use drugs. The use of such non-PC language may influence study participants' survey responses (i.e., introduce bias), further perpetuating stigma toward certain patient populations (Mahmoud et al., 2023).

Modifications to incorporate PC language into the AAPPQ and DDPPQ were introduced by Mahmoud et al. (2020, 2023). Mahmoud et al. (2020) developed the PC-AAPPQ and administered it to 637 nursing students, identifying a seven-factor structure encompassing all 30 original items as the best-fitting model (comparative fit index [CFI] = .871, standardized root-mean-square residual [SRMSR] = .071, root-mean-square error of approximation [RMSEA] = .06). Cronbach's alpha values ranged between 0.609 and 0.917, indicating acceptable to high internal consistency across scales. Similarly, Mahmoud et al. (2023) created the PC-DDPPQ and tested it with 400 undergraduate nursing students. A five-factor, 19-item structure, excluding Item 14, provided the best fit (CFI = 0.959, Tucker-Lewis index [TLI] = .951, RMSEA = .058). To date, these are the only psychometric evaluations available for PC adaptations of the AAPPQ and DDPPQ. Building on this foundational work, the purpose of this study was to determine whether modifying the language in the original AAPPQ and DDPPQ to create the PC-AAPPQ and PC-DDPPQ affected the reliability, internal consistency, and factor structures of these questionnaires when used with practising registered nurses (RNs) and registered practical nurses (RPNs). This population was selected because nurses comprise the largest group of health care professionals globally (World Health Organization, 2020) and serve as the most consistent point of contact for patients across care settings. In the hospital environment, they are often the primary providers responsible for observing, recognizing, and responding to the needs of PWUS. As such, their attitudes and perceptions play a critical role in shaping the care experiences and outcomes for this population.

Methods

Study Design

In the fall of 2024, we administered an electronic survey to RNs and RPNs working at an acute care academic hospital in northwestern Ontario, Canada, to obtain a cross-sectional sample. The survey was sent by the professional practice department on October 14, 2024. The survey remained open for 3 weeks, with a reminder email sent on October 28, 2023. The survey closed on November 4, 2024. Recruitment materials were posted at the hospital, and a QR code was available for the RNs and RPNs to access the survey. Furthermore, six in-person drop-in information sessions were held to recruit participants, and a light lunch was served at each session.

After completing the initial demographic questions on the survey, the participants were randomized to either the AAPPQ and DDPPQ or the PC-AAPPQ and PC-DDPPQ in real time, thus ensuring a 1:1 allocation ratio (see Figure 3.1). The randomization algorithm, uploaded to the data software randomization module, assigned even-numbered responders to the revised PC surveys and odd-numbered responders to the original surveys, maintaining consistent allocation. Approval to conduct the study was received from the hospital's research ethics board on October 3, 2024 (REB Approval #1469703).

Figure 3.1

Visual Representation of the Study Methods
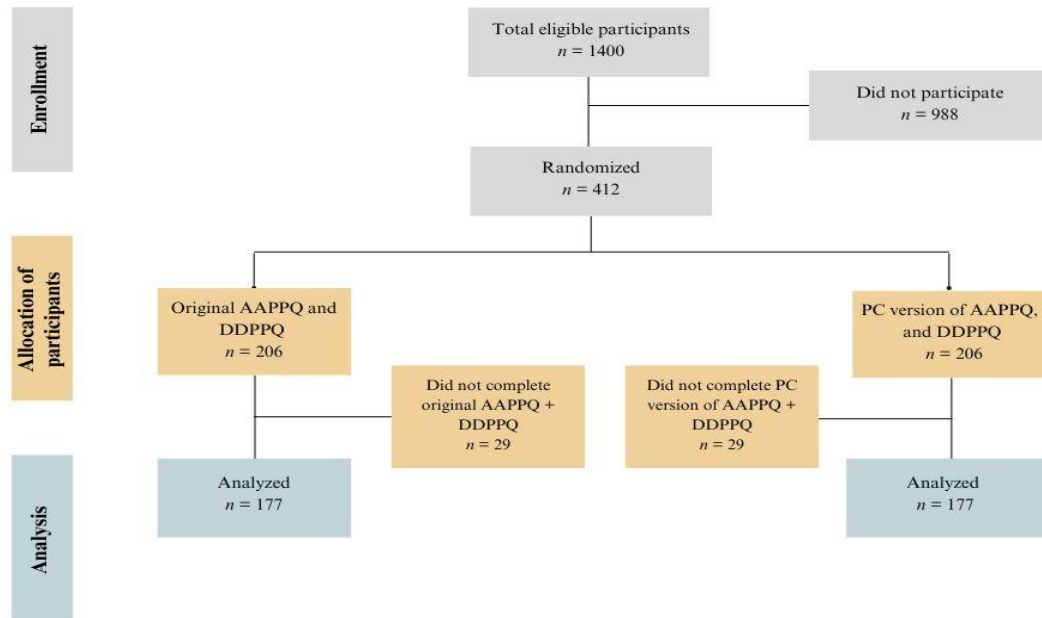
Study Sample

The sample comprised eligible participants who were RNs and RPNs holding current registration in Ontario and employed in casual, part-time, full-time, or temporary positions at the hospital involving direct patient care. Advanced practice nurses, such as clinical nurse specialists and nurse practitioners, as well as nurses in leadership positions (e.g., nurse managers and nursing directors), were excluded from the study. These roles typically do not involve sustained, direct patient care. Although advanced practice nurses may have limited interactions with PWUS during a single admission, their contact often is brief, episodic, and not continuous across shifts. As such, their perspectives may be significantly different from those of staff nurses who provide around-the-clock direct care, and develop ongoing therapeutic relationships with patients.

Study Measures

AAPPQ and DDPPQ

Demographic and professional characteristics were collected at the beginning of the survey prior to administration of the validated measures. The characteristics included nursing designation, age, gender, level of education, clinical unit, employment status, and years of experience in the role. Participants also were asked about their exposure to education or training related to substance use and/or addiction during both their undergraduate nursing education and professional careers, as well as their self-reported competence caring for PWUS.

The AAPPQ comprises six factors and 30 items (Gorman & Cartwright, 1991): role adequacy (Items 1–7), role legitimacy (Items 8–11), role support (Items 12–14), motivation (Items 15–19), task-specific self-esteem (Items 20–25), and work satisfaction (Items 26–30). The DDPPQ comprises five factors and 20 items (Watson et al., 2007): role adequacy (Items 1–7), role legitimacy (Items 8, 9), role support (Items 10–12), role-related self-esteem (Items 13, 15–17), and job satisfaction (Items 14, 18–20). The AAPPQ Cronbach's alpha values ranged from .7 to .9 (Cartwright, 1980), and the DDPPQ demonstrated a Cronbach's alpha of .87, with scale values ranging from .69 to .94 (Watson et al., 2007), with both questionnaires indicating acceptable to excellent internal consistency. The higher the score, the more negative are the attitudes of RNs and RPNs toward individuals who drink alcohol and who use drugs.

This study used the PC language from the modified versions of the AAPPQ and DDPPQ (i.e., PC-AAPPQ and PC-DDPPQ), developed by Mahmoud et al. (2020, 2023). These adapted versions retained the original factor and item structures, with only the wording revised to reflect PC language, consistent with the modifications described by Mahmoud et al. (2020, 2023) prior to their survey distribution. For example, the term *drinker* was replaced with *individuals who*

drink alcohol and *drug user* with *individuals who use drugs*. The PC wording changes were accessed directly from the publicly available versions included in Mahmoud et al.'s (2020, 2023) published articles.

The PC-AAPPQ uses a 5-point Likert scale of responses ranging from 1 (*strongly agree*) to 5 (*strongly disagree*), resulting in a possible total score range of 30 to 150 (range 120). The higher the score, the more negative are the attitudes of RNs and RPNs toward individuals who drink alcohol. Similarly, for the 20-item PC-DDPPQ, a 5-point Likert scale of responses ranging from 1 (*strongly agree*) to 5 (*strongly disagree*) is used, with scores from 20 to 100 (range 80). The higher the score, the more negative are the attitudes of RNs and RPNs toward individuals who use drugs. Prior to analysis, negatively worded items were reverse scored.

Data Management

Study data were collected and managed using REDCap (Research Electronic Data Capture), a secure web-based platform designed to facilitate research data management, hosted at the principal investigator's institution (Harris et al., 2009, 2019). The platform facilitated direct entry of survey responses, thus ensuring accuracy and reducing data entry errors. A numeric identifier was assigned to each participant to maintain anonymity and confidentiality. All collected data were stored in the principal investigator's office on a password-protected computer. Access to the data was limited to the principal investigator. Data on gender were collected through an open-ended question to permit inclusive self-identification. However, all participants provided binary responses (i.e., man or woman). As a result, gender was dichotomized for analytical clarity and consistency, given the absence of nonbinary responses.

Data Analysis

The two samples of participants (i.e., those who completed the original AAPPQ and DDPPQ and those who completed the PC-AAPPQ and PC-DDPPQ) were compared using independent *t* tests to examine differences in demographic characteristics and mean scale scores. CFA and EFA were conducted based on the random allocation of the two cohorts.

Confirmatory Factor Analysis

Jamovi (2022, https://www.jamovi.org) was used to perform CFA and EFA. Model fit was assessed for the original six-factor AAPPQ structure (Gorman & Cartwright, 1991) and the seven-factor structure proposed by Mahmoud et al. (2020), as well as the PC-AAPPQ. Similarly, model fit was evaluated for the original five-factor, 20-item DDPPQ structure (Watson et al., 2007) and the PC-DDPPQ. The models were evaluated using the RMSEA, SRMSR, CFI, and TLI to assess the fit between the observed data and the proposed model. The following cutoffs were used to determine good model fit: RMSEA $\leq .06$, SRMR $\leq .08$, and CFI and TLI $\geq .90$ (Hu & Bentler, 1999).

Exploratory Factor Analysis

Based on the CFA results of the PC-AAPPQ and PC-DDPPQ, as well as the inability to identify an optimal model fit, EFA was subsequently conducted as a post hoc analysis. The EFA included the following: (a) Factors were extracted based on the Kaiser (1960) criterion, retaining those with eigenvalues exceeding 1, (b) a minimum factor loading threshold of .3 was established for item retention (Comrey & Lee, 2013), and (c) items were required to have communalities exceeding .3 (Tavakol & Wetzel, 2020). Items with loadings $\geq .3$ were retained within their respective factors. For items with loadings $\geq .3$ on multiple factors, the item was assigned to the factor with the higher loading (Tavakol & Wetzel, 2020). Items exhibiting cross-

loadings ≥ .3 or loadings below .3 were flagged for further investigation (Tavakol & Wetzel, 2020). Interitem correlation analysis also was performed, with a cutoff threshold of .3 used to determine item retention (Young & Pearce, 2013).

Bartlett's test of sphericity was used to assess whether the correlation matrix was an identity matrix, which would have indicated that the variables were unrelated and unsuitable for factor analysis. A significant result ($p < .05$) from Bartlett's test would have suggested that the correlation matrix was not an identity matrix, supporting the suitability of the data for factor analysis (Bartlett, 1951). The Kaiser-Meyer-Olkin (KMO) test was used to assess sampling adequacy, with values .70 to .79 interpreted as good, .80 to .89 as great, and above .90 as superb (Kaiser, 19471974).

Internal Consistency

Reliability analysis was performed for each factor identified in the EFA, assessing Cronbach's alpha for the included items, interitem correlations, and the impact of removing individual items on Cronbach's alpha. A Cronbach's alpha of .70 to .80 or higher was considered acceptable for scales (Taber, 2018). Items with an average interitem correlation below .3 were removed from the scales (Taber, 2018).

Factor Labelling

Once the factor structure was verified, the scales generated in the analyses were reviewed and assigned labels based on the shared conceptual content of the items included. Table 3.1 provides an operational definition and rationale for each label to support future use and interpretation of the scale.

Table 3.1

Factor Labels, Operational Definitions, and Rationale

PC-AAPPQ			PC-DDPPQ		
Factor label	Operational definition	Rationale for label	Factor label	Operational definition	Rationale for label
Role adequacy	Extent to which nurses feel they possess sufficient knowledge and understanding to effectively carry out their responsibilities supporting individuals who drink alcohol.	Items reflect perceptions of having adequate knowledge about alcohol use, its causes, psychological effects, and risk factors. This factor captures subjective preparedness and clinical knowledge.	Role adequacy	Extent to which nurses feel they possess sufficient knowledge and understanding to effectively carry out their responsibilities in supporting individuals who use drugs.	Items reflect perceived knowledge of drug-related issues, including causes, effects, and risk factors as well as the ability to counsel and advise, indicating a sense of preparedness and clinical adequacy.
Confidence, role clarity, and support	Extent to which nurses feel confident in their abilities, have clarity around their professional responsibilities and perceive access to supportive services.	Items reflecting personal confidence, clarity in one's professional role and perceived access to guidance or supervision. Together, these capture a nurse's readiness and perceived support to engage effectively with patients who use alcohol.	Role support	Extent to which nurses feel they can access guidance or assistance dealing with challenges related to working with individuals who use drugs.	Items highlight perceived access to supervision, consultation, or collegial support, reflecting whether nurses feel supported in their role and able to seek help when needed.
Work satisfaction and motivation	Nurses emotional evaluation of their work with individuals who drink alcohol, including satisfaction, self-	Items include negative self-appraisal, emotional discomfort, and one item reflecting	Perceived confidence and emotional response	Degree to which nurses feel confident, emotionally connected and positively engaged in	Captures affective and cognitive appraisals, including empathy, emotional

PC-AAPPQ			PC-DDPPQ		
Factor label	Operational definition	Rationale for label	Factor label	Operational definition	Rationale for label
	perception of performance and motivational stance.	satisfaction, reflecting how nurses internally evaluate their performance and emotional connection to the work.		working with individuals who use drugs.	satisfaction and understanding of individuals who use drugs, indicating emotional engagement and professional confidence.
Self-efficacy and emotional satisfaction	Nurses' belief in their ability to connect with individuals who drink alcohol and the emotional reward or satisfaction they derive from their work.	Items reflect empathy, liking, perceived understanding and sense of reward, capturing both confidence (self-efficacy) and positive emotional investment.	Job satisfaction	Extent to which nurses experience satisfaction or dissatisfaction when working with individuals who use drugs.	Items include emotional discomfort, negative perceptions of individuals who use drugs, and self-doubt, reflecting internal attitudes and emotional toll of the work.

Results

Sample Characteristics

Four-hundred and twelve RNs and RPNs ($N = 412$; response rate 32%) completed the Demographics section of the survey. The sample characteristics are presented in Table 3.2, with participants being divided and described by the arm to which they were randomized. Statistical analysis indicated no significant difference in any demographic characteristics between the two arms, suggesting successful randomization.

Table 3.2

Participants' Hospital Environment Characteristics

Characteristics	Arm 1: Original AAPPQ & DDPPQ Frequency (%), *M, SD*	Arm 2: PC-AAPPQ & PC-DDPQ Frequency (%), *M, SD*	*p* value for comparison
Nursing designation			.927
RPN	32 (15.5%)	33 (16%)	
RN	171 (83%)	172 (83.5%)	
Missing data	3 (1.5%)	1 (0.5%)	
Age (*n* = 404)	*M* = 37.35, *SD* = 11.15, range 20-69	*M* = 36.18, *SD* = 10.36, range 21-67	.273
Gender			.942
Female	177 (85.9%)	181 (87.9%)	
Male	24 (11.7%)	24 (11.7%)	
Missing data	5 (2.4%)	1 (0.5%)	
Highest level of education			.729
Diploma	58 (28.2%)	53 (25.7%)	
Undergraduate degree	125 (60.7%)	134 (65.0%)	
Graduate degree (i.e., master's)	20 (9.7%)	18 (8.7%)	
Missing	3 (1.5%)	1 (0.5%)	
Unit of work			.910
Critical care services	35 (17%)	33 (16%)	
Medical/surgical	61 (29.6%)	59 (28.6%)	
Mental health	10 (4.9%)	12 (5.8%)	
Out-patient services	38 (18.4%)	40 (19.4%)	
Perioperative services	21 (10.2%)	28 (13.6%)	
Women & children	26 (12.6)	23 (11.2%)	
Other	9 (4.4%)	6 (2.9%)	
Missing	6 (2.9%)	5 (2.4%)	
Work status			.891
Full-time	118 (57.3%)	118 (57.3%	
Part-time	60 (29.1%)	58 (28.2%)	
Casual	21 (10.2%)	24 (11.7%)	
Missing data	7 (3.4%)	6 (2.9%)	
Experience in role			.545
Up to 6 months	12 (5.8%)	12 (5.8%)	
> 6 months to 2 years	12 (8.3%)	27 (13.1%)	
> 2 to 5 years	29 (14.1%)	31 (15%)	
> 5 to 10 years	32 (15.5%)	34 (16.5%)	
> 10 years	111 (53.9%)	99 (48.1%)	
Missing	5 (2.4%)	3 (1.5%)	
Education/training received on substance use and/or addictions in nursing career			.506
None	60 (29.1%)	53 (25.7%)	
1-4 hours	95 (46.1%)	89 (43.2%)	
5-8 hours	23 (11.2%)	33 (16.0%)	
9-12 hours	5 (2.4%)	8 (3.9%)	
> 13 or more hours	18 (8.7%)	21 (10.2%)	
Missing	5 (2.4%)	2 (1%)	

Characteristics	Arm 1: Original AAPPQ & DDPPQ Frequency (%), *M, SD*	Arm 2: PC-AAPPQ & PC-DDPQ Frequency (%), *M, SD*	*p* value for comparison
Hours of education/training received in undergraduate nursing program on substance use and/or addictions			0.588
None	37 (18%)	33 (16%)	
1-4 hours	89 (43.2%)	86 (41.7%)	
5-8 hours	35 (17%)	36 (17.5%)	
8-12 hours	22 (10.7%)	26 (12.6%)	
> 13 or more hours	13 (6.3%)	22 (10.7%)	
Missing	10 (4.9%)	3 (1.5%)	
Competence level (1-10, with 1 being not confident and 10 being highly confident) caring for PWUS in the hospital setting (*n* = 380)	*M* = 6.33, *SD* = 2.12	*M* = 6.44, *SD* = 2.05	.603

Note. N = 412

Descriptive Statistics for the Measurements That Were Used

Of the 412 participants who completed the Demographics section of the survey, 354 completed either the AAPPQ or the PC-AAPPQ (*n* = 177, *n* = 177), and 331 completed either the DDPPQ or the PC-DDPPQ (*n* = 164 [three participants did not complete], *n* = 167). Fifty-eight participants completed the demographics questions, but upon randomization, they did not complete the AAPPQ and DDPPQ or the PC-AAPPQ and PC-DDPPQ. The AAPPQ and PC-AAPPQ total scores yielded mean scores of 82.17 (*SD* = 13.0) and 80.20 (*SD* = 12.06), respectively. No statistically significant difference was found between the two versions, *p* = .146. For the DDPPQ, the mean score was 55.30 (*SD* = 11.18), and for the PC-DDPPQ, the mean score was 55.05 (*SD* = 9.36; see Table 3.3). No statistically significant difference was found between the two versions (*p* = .821).

Table 3.3

Descriptive Statistics AAPPQ, PC-AAPPQ, DDPPQ, and PC-DDPPQ

Measure	AAPPQ	PC-AAPPQ	DDPPQ	PC-DDPPQ
n	177	177	164	167
Min	47.00	30.00	20.00	28.42
Max	131.00	130.00	94.00	89.00
M	82.17	80.20	55.30	55.05
SD	13.30	12.06	11.18	9.36

CFA: AAPPQ

CFA was conducted to evaluate the AAPPQ against the original six-factor structure proposed by Gorman and Cartwright (1991). The model did not meet the established criteria for good fit: SRMR = .09, RMSEA = .077, CFI = .823, and TLI = .803. Although all 30 items demonstrated statistically significant factor loadings, the overall model fit indices indicated that the proposed structure did not meet the criteria for a good fit.

Building on the aforementioned findings, the six-factor structure of the AAPPQ demonstrated poor model fit, necessitating the exploration of alternative models. Mahmoud et al. (2020) found a seven-factor structure to be the best fit for their PC-AAPPQ, and when this structure was evaluated using our data, the model fit indices were as follows: SRMR = .078, RMSEA = .065, CFI = .88, and TLI = .86. This model did not meet the criteria for good fit, with SRMR meeting the threshold and other indices approaching acceptable values. However, although the seven-factor structure represented an improvement over the original six-factor model, it remained suboptimal based on established fit criteria.

CFA: PC-AAPPQ

CFA was conducted to evaluate the PC-AAPPQ against the original six-factor structure proposed by Cartwright (1980). The model did not meet the criteria for good fit: SRMR = .101, RMSEA = .085, CFI = .762, and TLI = .734. In addition, Item 17 exhibited a nonsignificant

factor loading ($p = .251$) within the motivation scale. These findings suggest that the original six-factor structure of the PC-AAPPQ did not provide an adequate fit to the data.

We examined whether other proposed structures might have offered a better fit for the original PC-AAPPQ. For example, an alternative structure for the PC-AAPPQ proposed by Mahmoud et al. (2020) consisted of a seven-factor, 30-item model: role adequacy (Items 1–8), role-related self-esteem (Items 17–26), role support (Items 12–14), work satisfaction (Items 27, 28), role legitimacy (Items 2, 10, 11), motivation (Items 15, 16, 25), and general perceptions (Items 29, 30). When evaluated with this seven-factor structure, the model fit indices were as follows: SRMR = .101, RMSEA = .084, CFI = .772, and TLI = .741. Although all items demonstrated significant factor loadings, Item 25 in the motivation scale was not significant statistically ($p = .079$). These results indicated that for both the original AAPPQ and the PC-AAPPQ, neither the original six-factor model nor the proposed seven-factor model (Mahmoud et al., 2020) provided a satisfactory fit to the data.

EFA: PC-AAPPQ

Given the poor fit of the original six-factor model, a post hoc EFA was conducted to determine the optimal number of factors for the PC-AAPPQ. The computer generated a four-factor structure as the optimal fit (RMSEA = .081 & TLI = .741), extracted based on Kaiser criterion (i.e., retaining number of factors with eigenvalue > 1). Sampling adequacy was assessed using the overall KMO test, yielding a value of .784, indicating a satisfactory level for factor analysis. Bartlett's test of sphericity was significant ($p < .001$), supporting the suitability of the data for EFA. However, Items 9, 11, 15, 17, and 20 did not load on any factors, suggesting that they were not well represented in the model (see Table 3.4). The factor names were derived from the wording of the individual items associated with each factor.

Table 3.4

EFA of PC-AAPPQ (Four Factors)

Indicator	Role adequacy	Confidence, role clarity, & support	Work satisfaction and motivation	Self-efficacy and emotional satisfaction	Com-munality
pc_aappq_q1	.802				.644
pc_aappq_q2	.882				.782
pc_aappq_q3	.908				.854
pc_aappq_q4	.726				.680
pc_aappq_q5	.709				.601
pc_aappq_q6		.670			.522
pc_aappq_q7		.570			.353
pc_aappq_q8		.660			.427
pc_aappq_q9					**.176**
pc_aappq_q10		*.348*			*.112*
pc_aappq_q11					**.076**
pc_aappq_q12		.686			.492
pc_aappq_q13		.770			.656
pc_aappq_q14		.715			.552
pc_aappq_q15					**.163**
pc_aappq_q16				.585	.349
pc_aappq_q17R					**.082**
pc_aappq_q18R				*.405*	*.310*
pc_aappq_q19R			*.337*		*.231*
pc_aappq_q20					**.222**
pc_aappq_q21R			.753		.614
pc_aappq_q22R			.591		.333
pc_aappq_q23R			.591		.398
pc_aappq_q24R			.703		.522
pc_aappq_q25			.476		.381
pc_aappq_q26R			.452		.284
pc_aappq_q27				.632	.444
pc_aappq_q28				.747	.571
pc_aappq_q29				.567	.375
pc_aappq_q30				.587	.360

Note. *only loadings above .3 are shown in the table
**bold items removed with EFA
***italic items removed with interitem correlations

The internal consistency of the EFA four-factor structure was investigated, resulting in 25

items (see Table 3.5).

Table 3.5

Internal Consistency of Four-Factor, 25-Item PC-AAPPQ

Factor	No. of items	Cronbach's alpha	Interitem correlations	Cronbach's alpha 1 item deleted
1	5 (Q1-Q5)	.911	.496-.814	.874-.908
2	7 (Q6,7,8,10,12,13,14)	.813	.135-.703	.760-.840 (.840 if removal of Q10)
3	7 (Q19,21,22,23,24,25,26)	.767	.066-.512	.704-.775 (.775 if removal of Q19)
4	6 (Q16,18,27-30)	.756	.121-.617	.677-.767 (.767 if removal of Q18)

Internal consistency was further assessed using interitem correlation analysis. Items with an average correlation below .3, indicating poor relatedness with the remaining items, were removed. In Factor 1, all correlations exceeded .3. In Factor 2, Item 10 (.194) was removed, reducing the factor to six items. In Factor 3, Item 19 (.224) was removed, also resulting in six items. In Factor 4, Item 18 (.245) was removed, leaving five items. This refinement produced a four-factor, 22-item scale, eliminating eight items from the original PC-AAPPQ (Mahmoud et al., 2020). All Cronbach's alpha values exceeded .7, with no further improvements from additional item removal (see Table 3.6).

Table 3.6

Internal Consistency of Four-Factor, 22-Item PC-AAPPQ

Factor	No. of items	Cronbach's alpha	Inter-item correlations	Cronbach's alpha 1 item deleted
1	5 (Q1-Q5)	.911	.496-.814	.874-.908
2	6 (Q6,7,8,12,13,14)	.840	.319-.721	.791-.831
3	6(Q21,22,23,24,25,26)	.775	.213-.512	.703-.762
4	5 (Q16, 27-30)	.769	.270-.620	.692-.754

CFA: DDPPQ

CFA was completed using the DDPPQ against the original five-factor proposed structure (Watson et al., 2007): role adequacy (Items 1–7), role legitimacy (Items 8–9), role support (Items 10–12), role-related self-esteem (Items 13, 15–17), and job satisfaction (Items 14, 18–20). The model did not meet the criteria for good fit: SRMR = .079, RMSEA = .085, CFI = .905, and TLI

= .887All 20 items had statistically significant loadings, and this model appeared to be a reasonably good fit because all items, except RMSEA and TLI (almost meeting the thresholds), met the threshold.

CFA: PC-DDPPQ

CFA was completed using the PC-DDPPQ against the original five-factor proposed structure (Mahmoud et al., 2023): role adequacy (Items 1–7), role legitimacy (Items 8–9), role support (Items 10–12), role-related self-esteem (Items 13, 15–17), and job satisfaction (Items 18–20; (removal of Item 14). The model did not meet the criteria for good fit: SRMR = .097 (should have been ≤ .08), RMSEA = .093 (should have been ≤ .06), CFI = .877, and TLI = .852 (should have been ≥ .9).

EFA: PC-DDPPQ

As a result of the aforementioned CFA results of the PC-DDPPQ, a post hoc EFA was conducted to determine the best number of factors and factorial structure for the measure. A four-factor structure was based on Kaiser criterion (eigenvalue > 1) and RMSEA and TLI values of .094 and .821, respectively. Sampling adequacy was confirmed by the overall KMO value of 0.817, indicating excellent suitability for EFA. Bartlett's test of sphericity was significant ($p < .001$), further supporting the appropriateness of the data for EFA. Items 8, 9, and 13 did not fit with any of the factors (see Table 3.7). The factor names were derived from the wording of the individual items associated with each factor.

Table 3.7

EFA of PC-DDPPQ (Four Factors)

Indicator	Role adequacy	Role support	Perceived competence and emotional response	Job satisfaction	Communality
pc_ddppq_q1	.718				.523
pc_ddppq_q2	.851				.721
pc_ddppq_q3	.895				.805
pc_ddppq_q4	.828				.713
pc_ddppq_q5	.777				.676
pc_ddppq_q6	.427	.329			.469
pc_ddppq_q7	.449	.381			.540
pc_ddppq_q8					**.169**
pc_ddppq_q9					**.146**
pc_ddppq_q10		.718			.633
pc_ddppq_q11		.932			.815
pc_ddppq_q12		.903			.814
pc_ddppq_q13R					**.193**
pc_ddppq_q14			.365		.257
pc_ddppq_q15R			.647		.523
pc_ddppq_q16R			.560		.357
pc_ddppq_q17R			.670		.477
pc_ddppq_q18				.800	.644
pc_ddppq_q19				.883	.770
pc_ddppq_q20	.306			.518	.447

Note. *only loadings above .3 are shown in the table
**bold items removed with EFA
***italic items removed with interitem correlations

The internal consistency of the four factors was examined (see Table 3.8). The original

PC-DDPPQ consisted of 20 items; however, after EFA, three items were removed, leaving a

final set of 17 items.

Table 3.8

Internal Consistency of Four-Factor, 17-Item PC-DDPPQ

Factor	No. of items	Cronbach's alpha	Interitem correlations	Cronbach alpha's 1 item deleted
1	7 (1Q-7)	.904	.412-.787	.878-.903
2	3 (Q10-12)	.901	.715-.835	.830-.910 (.910 if removal of Q10)
3	3(Q18-20)	.771	.423-.714	.635-.833 (.833 if removal of Q20)*
4	4 (14-17)	.668	.231-.516	.504-.669

Interitem correlation analysis was conducted to assess internal consistency. In Factors 1 to 3, all correlations exceeded .3. In Factor 4, Item 14 had a correlation of .259 and was removed, reducing the factor to three items. This resulted in a four-factor, 16-item scale, with four items removed from the original PC-DDPPQ (Mahmoud et al., 2023). Cronbach's alpha for Factors 1 to 3 exceeded .7, with no further improvements from item removal. Factor 4 was just below the .7 threshold, with no gain from additional deletions. Thus, the four-factor, 16-item structure was appropriate (see Table 3.9).

Table 3.9

Internal Consistency of Four-Factor, 16-Item PC-DDPPQ

Factor	No. of items	Cronbach's alpha	Interitem correlations	Cronbach's alpha 1 item deleted
1	7 (1Q-7)	.904	.412-.787	.878-.903
2	3 (Q10-12)	.901	.715-.835	.830-.910
3	3(Q18-20)	.771	.423-.714	.635-.833
4	3 (15-17)	.669	.289-.516	.446-.679

Discussion

We sought to evaluate how modifying the language in the original AAPPQ and DDPPQ to create the PC-AAPPQ and PC-DDPPQ impacted the questionnaires' reliability, internal consistency, and factor structures. For the AAPPQ, CFA identified a seven-factor, 30-item model as the best-fitting structure, which was different from the original six-factor model. However, the fit indices were suboptimal. This seven-factor model aligned with previous research, which found that a seven-factor structure also was the best fit (Terhorst et al., 2013). Terhorst et al. (2013) proposed a seven-factor, 27-item model, excluding Items 19, 20, and 25, with Cronbach's alpha values ranging from .71 to .90. Building on these evaluations, our examination of the transition to the PC-AAPPQ aimed to integrate PC language while considering its impact on factor structure and item organization. CFA results for the PC-AAPPQ mirrored those of the original version, with neither the six-factor nor the seven-factor model providing an adequate fit.

Consequently, an EFA was conducted, revealing a four-factor structure with the removal of Items 9, 11, 15, 17, and 20, resulting in a 25-item measure. Further interitem correlation analysis led to the removal of Items 10, 18, and 19, yielding a final 22-item model.

This factor structure was notably different from Mahmoud et al.'s (2020) study, which identified a seven-factor, 30-item solution as the best fit for the PC-AAPPQ with undergraduate nursing students. In Mahmoud et al.'s study, the labeling of their factors mostly aligned with the original labelling in the AAPPQ, outside of task-specific self-esteem being relabelled to role related self-esteem (original AAPPQ contained six items, and this model increased to nine items) and the original work satisfaction scale (Items 29 and 30) renamed to general perceptions related to alcohol use. In our study, significant changes were observed in the factor structure of the questionnaire. The role adequacy scale retained its original label but lost two items (Items 6 & 7), which were reassigned to a new scale renamed confidence, role clarity and support that gained Items 12, 13, 14 from the original role support scale. In addition, this scale gained Item 8 from the original role legitimacy scale. Work satisfaction and motivation formed Factor 3 in our study, which included Items 16 (originally from the motivation scale) and Items 27 to 30 (originally from the work satisfaction scale). Our fourth factor was renamed to self-efficacy and emotional satisfaction encompassing Items 21 to 25 (originally from task-specific self-esteem) and Item 26 (originally from the work satisfaction scale). All four factors identified had internal consistency measured by Cronbach's alpha of at least .7.

In contrast to the AAPPQ findings, our CFA of the DDPPQ supported the original five-factor, 20-item structure. Similarly, Mahmoud et al. (2020) identified a five-factor, 19-item structure, excluding Item 14, as the best fit. Consistent with this five-factor structure, Mahmoud

et al. and Watson et al. (2007) also reported the same underlying factor structure, both with good internal consistencies (.70–.93 and .69–.94).

However, although our CFA initially supported the original structure, the model fit was not optimal. To address the model fit indices and to determine the superior model, we conducted an EFA, revealing a refined four-factor, 17-item structure following the removal of Items 8, 9, and 13. Further interitem correlation analysis led to the removal of Item 14, resulting in a final four-factor, 16-item model. In our study, our first factor aligned with the original DDPPQ, in which Items 1 to 7 constituted the role adequacy scale. Role legitimacy, the second scale in the original DDPPQ, consisted of Items 8 and 9. In our study, Item 8 moved to the new scale of perceived competence and emotional response, also gaining Items 15 to 17 originally from the role-related self-esteem scale. The role support and job satisfaction scale remained the same as the original DDPQ, outside of Item 14 being removed from the job satisfaction scale. As for EFA for the PC-AAPPQ, we found adequate internal consistency within the factors. Factor 4 was just below the .7 threshold (.68), a result that can be explained by the small number (i.e., three) of items in the factor.

Although the changes observed in the DDPPQ were less substantial than those in the AAPPQ and PC-AAPPQ, these findings underscore key variations in factor structures and item organization across the AAPPQ, DDPPQ, PC-AAPPQ, and PC-DDPPQ, demonstrating the impact of language modifications on the structure of the questionnaires. These discrepancies highlighted the need for a comprehensive revaluation of all four tools because they may no longer capture the constructs that they were intended to measure adequately. The observed shifts in factor structures and the removal of certain items suggested that these tools may require updates or refinements to better align with contemporary societal and academic discourse.

Moreover, despite improved model fit in the EFA, the inability to achieve acceptable thresholds across all fit indices suggests that further refinement and revision of the tool are warranted.

Since the development of the AAPPQ in 1980 and the DDPPQ in 2007, significant societal, clinical, and policy shifts have transformed the landscape of substance use and health care. The global opioid epidemic has escalated (United Nations Office of Drugs and Crime, 2023), leading to widespread harm reduction initiatives (Levengood et al., 2021; Perera et al., 2022), including the integration of supervised consumption sites into society (Singh Kelsall et al., 2025; Urbanik & Greene, 2021; Yoon et al., 2022); expanded naloxone distribution (Ferguson et al., 2023; Sindhwani et al., 2024); and shifts toward decriminalization (Michaud et al., 2024) and safer supply programs (Gagnon et al., 2023; Olding et al., 2024). The COVID-19 pandemic further exacerbated substance use with increased rates of opioid-related overdoses (Friesen et al., 2021; Wilkinson et al., 2020), and heightened health care disparities for PWUS (Altekruse et al., 2020; Britz et al., 2023).

Concurrently, contemporary discourse in health care has increasingly emphasized PC, trauma-informed, and antistigmatizing approaches, challenging outdated paradigms that pathologize or moralize substance use. Given these profound shifts, it was necessary to evaluate whether extant tools captured the attitudes of RNs and RPNs toward PWUS in the contemporary context accurately. The original factor structures of the AAPPQ and DDPPQ may no longer align with contemporary nursing practice, which now demands a more nuanced understanding of the structural determinants of health, harm reduction principles, and the ethical imperative to provide equitable care.

The differences between the two populations, namely, nursing students in the Mahmoud et al. (2020, 2023) studies and practising RNs and RPNs in our study, may have reflected

variations in experience, clinical exposure, and professional development. Nursing students are in the early stages of their education and typically have limited hands-on experience in the clinical setting (e.g., interactions with PWUS), which could influence their perceptions and responses to the questionnaire. In contrast, practising RNs and RPNs have completed their formal education and are likely to have more practical experience (e.g., higher rates of interactions with PWUS) and a deeper understanding of their roles and responsibilities in the health care setting. In addition, practising nurses may have different expectations, challenges, and career goals, further impacting their perspectives of the questionnaires' constructs.

Future researchers should explore the psychometric properties of the questionnaires across diverse populations, including nursing students, practising RNs and RPNs, and more experienced practitioners, to help to determine if the factor structure and psychometric properties of the PC-AAPPQ and the PC-DDPPQ are different across various stages of professional development and experience. Moreover, conducting longitudinal studies could give researchers insight into the ways that perceptions and constructs evolve over the course of the nursing career. Longitudinal studies would provide a more comprehensive understanding of the ways in which these constructs develop and how they might impact RNs and RPNs at different career stages.

Limitations

This study had several limitations that should be considered when interpreting the findings. First, a larger sample of participants would have improved the subject-to-item ratio, thereby enhancing the reliability and generalizability of the results. Although a 10:1 ratio, approximately 300 participants, often is recommended as ideal (Nunnally, 1978), our sample sizes, with 164 participants completing the PC-AAPPQ and 167 completing the PC-DDPPQ, fell

at the lower end of acceptable thresholds for EFA. We also were unable to meet all model fit criteria: The identified models did not satisfy the following thresholds for good fit: RMSEA $\leq .06$, SRMR $\leq .08$, and CFI and TLI $\geq .90$ (Hu & Bentler, 1999). Despite being unable to meet all model fit criteria, the models presented represent the best-fitting solutions achievable with the available data. Nonetheless, sampling adequacy as assessed by KMO statistics indicated good to excellent suitability.

In addition, the retained items demonstrated reasonably strong factor loadings and communalities. It is important to recognize, however, that such sample size recommendations are guidelines rather than strict rules. The appropriateness of sample size also is influenced by factors such as the number of variables, the magnitude of factor loadings, and the communalities among the variables.

Second, the original AAPPQ and DDPPQ were designed for general practitioners, so some of the differences observed in our study may have reflected the unique perspectives and roles of RNs and RPNs compared to those of other health care professionals. Third, our study focused exclusively on RNs and RPNs as the target population, which could have limited the applicability of the results to other health care providers. Previous researchers have examined a broader range of health care professionals and have not focused specifically on practising RNs and RPNs, which may partly explain differences in findings. Fourth, the study was conducted at a single site in northwestern Ontario, a region with a notably higher incidence of substance use than other areas of the province. This regional context may have influenced the responses of the RNs and RPNs based on their increased exposure to substance use, potentially reducing the generalizability of the findings to RNs and RPNs in other settings. Furthermore, just over 30% of all nurses who were approached completed the survey, so this sample of convenience may

further limit the generalizability of the results to broader nursing populations or other health care environments.

Conclusion

The findings suggest that continued evaluation of the psychometric properties of the AAPPQ, DDPPQ, PC-AAPPQ, and PC-DDPPQ may be warranted to support their relevance and applicability to practising RNs and RPNs, along with their alignment with contemporary societal and academic discourse. Although limited by a small sample size and data obtained from a single setting, our findings provide preliminary support that slightly modified versions of the PC-AAPPQ and PC-DDPPQ may hold promise for use with practising clinical nurses in similar contexts.

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Introduction to Chapter 4

Chapter 2 (Manuscript 1) highlighted gaps in the literature, including the lack of attention to contextual factors contributing to the development of nurses' negative attitudes and the need for research with a Canadian focus, particularly in rural and remote hospital settings, all of which are addressed in this chapter. This chapter built directly on the findings of Chapter 3, using the revised factor structures of the attitude measures to examine associations between nurses' attitudes toward patients who use substances (PWUS) in the hospital setting and a range of professional and personal characteristics and psychosocial stressors, including social desirability, workload, burnout, and adverse childhood experiences (ACEs). The research question and analytic plan were developed in collaboration with my doctoral committee. I conducted the analysis independently, with substantial guidance and support from Dr. Bédard. I led the interpretation and discussion of the findings, integrating feedback from Dr. Mushquash and Dr. Wood. All members of my doctoral committee contributed to the drafting and refinement of the manuscript, with Dr. Bédard playing a key role in shaping its direction. The completed manuscript was reviewed and approved by my committee (Dr. Mushquash, Dr. Bédard, and Dr. Wood) and is currently under peer review by *The Journal of Clinical Nursing*.

Abstract

Background

Nurses demonstrate negative attitudes towards patients who use substances (PWUS) in the hospital setting, with such attitudes having implications for patient care. Although prior researchers have explored knowledge gaps and organizational barriers, less is known about how professional and personal characteristics and psychosocial stressors such social desirability, workload, burnout, and adverse childhood experiences (ACEs) shape these attitudes.

Methods

This cross-sectional study surveyed 412 registered nurses (RNs) and registered practical nurses (RPNs) working in a Canadian teaching hospital. The survey respondents completed validated instruments measuring their attitudes toward PWUS, along with assessments of social desirability, workload, burnout, and ACEs. Hierarchical regression analyses were conducted to explore how these contextual factors were associated with nurses' attitudes.

Results

Training in substance use and addiction, particularly through professional development, was consistently associated with nurses having more positive attitudes toward PWUS. A dose-response relationship was observed: Nurses who received 9+ hours of training reported significantly more favourable attitudes than those with none. Social desirability bias influenced responses, suggesting that some nurses may have underreported negative attitudes. Mixed associations were found between missed care and burnout across different attitude scales. ACEs were not significantly related to attitudes. Nurses working in the mental health in-patient setting exhibited more positive attitudes than those in other clinical areas.

Conclusion

This study highlighted the complex interplay of professional and personal characteristics and psychosocial stressors influencing nurses' attitudes toward PWUS. Targeted professional development, especially longer duration training, appeared effective in promoting more positive attitudes. Health care organizations should prioritize evidence-informed educational interventions and consider the ways that the clinical environment shapes nurse perceptions. Future researchers should evaluate whether attitude changes may lead to improved patient experiences and outcomes as reported by PWUS themselves.

CHAPTER 4: WORKLOAD, BURNOUT, AND BEYOND: CONTEXTUAL FACTORS SHAPING NURSES' ATTITUDES TOWARD PATIENTS WHO USE SUBSTANCES IN THE HOSPITAL SETTING

Introduction

Researchers have reported on the negative attitudes of nurses toward patients who use substances (PWUS) in the hospital setting (Antill Keener et al., 2023; Babiarczyk et al., 2024; Hyde et al., 2024; Mahmoud et al., 2021, 2023; Renbarger et al., 2021). Nurses in previous studies have expressed that caring for this patient population has left them feeling dissatisfied and disengaged in their nursing practice (Kiepek et al., 2021; Mahmoud et al., 2021; van Boekel et al., 2013). They have described challenges delivering care to PWUS in the hospital setting, often perceiving them as rude or disruptive (Monks et al., 2013; van Boekel et al., 2013), and some nurses have expressed hesitation or discomfort working with them (Molina-Mula et al., 2018). Nurses also have shared experiencing heightened emotional exhaustion (EE) and distress (Johansson & Wiklund-Gustin, 2016; Kiepek et al., 2021; Mahmoud et al., 2021; van Boekel et al., 2013), and their attitudes toward these patients have been reported as more negative compared to their attitudes toward patients with other comorbidities (Mulyani et al., 2021).

Building on these findings, PWUS have reported feeling stigmatized in the hospital setting, often being perceived as uncooperative, difficult, or undeserving of care (Chan Carusone et al., 2019; Goetz et al., 2023). PWUS have described experiences of discrimination, including being ignored by nurses (Lago et al., 2017; McNeil et al., 2014; Pauly et al., 2015; Sharma et al., 2017); being denied pain medication (McNeil et al., 2014; Sharma et al., 2017; Strike et al., 2020); and having their concerns dismissed (Horner et al., 2019; Strike et al., 2020). These

factors have continued to contribute to high rates of patients leaving the hospital before completing treatment (McNeil et al., 2014; Monks et al., 2013; Strike et al., 2020).

Nurses in other studies have identified elements that have shaped these attitudes: (a) a lack of support from their employer (e.g., the hospital), particularly in terms of policies and procedures to guide care (Antill Keener et al., 2023; Horner et al., 2019; Kratovil et al., 2023; Nusbaum & Farkash, 2022; Tan et al., 2022); (b) insufficient knowledge about substance use and/or addiction (Chozom et al., 2021; Hyshka et al., 2019; Kiepek et al., 2021; Mahmoud et al., 2021, 2023; Menard-Kocik & Caine, 2021); and (c) concerns about managing pain in this patient population, often perceived as drug seeking (Antill Keener et al., 2023; Horner et al., 2019; Morgan, 2014; Neville & Roan, 2014; Shaw et al., 2016). Even though these factors have been documented and their contributions have been generally understood, researchers have overlooked other contextual elements potentially shaping or contributing to such negative attitudes.

Such factors may include high workloads and burnout, both of which have escalated postpandemic, can impair nurses' emotional resilience and contribute to job dissatisfaction (Biagiola et al., 2025; Martin et al., 2023), which may exacerbate negative attitudes toward already stigmatized populations such as PWUS. Similarly, although personal experience with substance use in one's social network has been linked to more positive attitudes (Hyde et al., 2024; Mahmoud et al., 2021, 2023), no studies have formally explored how ACEs such as abuse, neglect, or family dysfunction might shape nurses' perceptions of PWUS. Lastly, societal expectations and professional standards may lead nurses to provide socially desirable responses rather than express their true feelings, highlighting the potential role of social desirability bias in attitudinal research. Collectively, these factors offer a more comprehensive lens through which to

explore the complex influences shaping nurses' attitudes in the hospital settings. As such, the purpose of this study was to examine if workload, burnout, ACEs, and social desirability were associated with nurses' attitudes toward PWUS in the hospital setting.

Methods

Study Design

This study followed a cross-sectional design in which an electronic survey was sent to registered nurses (RNs) and registered practical nurses (RPNs) employed in a teaching hospital in northwestern Ontario, Canada. Hospital research ethics board approval to conduct this study was granted on October 3, 2024 (REB #1469703). The electronic survey was distributed via email by the professional practice department to all 1,400 RNs and RPNs employed at the hospital on October 14, 2024. A reminder email was sent on October 28, 2024, to prompt further participation. The survey remained open for 3 weeks, closing on November 4, 2024. Recruitment posters featuring a QR code and relevant study information were displayed throughout the hospital, and this information also was available on the hospital's internal electronic communication board. Six in-person drop-in sessions, during which a light lunch was provided, were organized to facilitate further recruitment of study participants.

Study Sample

Convenience sampling was used to obtain the study sample. Respondents were RNs and RPNs with current registration in Ontario who held casual, part-time, full-time, or temporary positions at the hospital and provided direct patient care. Nurses in non-direct patient care roles, such as nurse practitioners; clinical nurse specialists; and those in leadership positions (e.g., manager, coordinator, director) were excluded from the study.

Study Measures

AAPPQ and DDPPQ

The survey included demographic and socioeconomic questions, followed by random allocation to complete both the Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ; Cartwright, 1980) and the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Watson et al., 2007) or the revised versions of the two measures to include person-centred (PC) language: the PC-AAPPQ and the PC-DDPPQ. The nurses were randomized in real time using REDCap after completing the demographics questionnaire, ensuring a 1:1 allocation ratio. The randomization algorithm, uploaded to the REDCap randomization module, assigned even-numbered responders to the revised surveys and odd-numbered responders to the original surveys, maintaining consistent allocation. The randomization was designed to compare the reactions to the original AAPPQ and DDPPQ to those to the PC-AAPPQ and PC-DDPPQ because we hypothesized that the use of non-stigmatizing PC language might affect the nurses' responses.

The AAPPQ consists of 30 items across six factors: role adequacy (Items 1–7), role legitimacy (Items 8–11), role support (Items 12–14), motivation (Items 15–19), task-specific self-esteem (Items 20–25), and work satisfaction (Items 26–30; Gorman & Cartwright, 1991). The AAPPQ has demonstrated acceptable to excellent internal consistency (Cronbach's alpha = .7–.9; Cartwright, 1980). Items are rated on a 5-point Likert scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*), with higher scores indicating more negative attitudes toward individuals who consume alcohol. Items 17, 18, 19, 21, 22, 23, 24, and 26 were reverse scored before analysis.

The DDPPQ comprises 20 items spanning five factors: role adequacy (Items 1–7), role legitimacy (Items 8–9), role support (Items 10–12), role-related self-esteem (Items 13, 15–17), and job satisfaction (Items 14, 18–20; Watson et al., 2007). It also uses a 5-point Likert scale of responses and has shown strong internal consistency (Cronbach's alpha = .87; range = .69–.94). Higher scores indicate more negative attitudes toward individuals who use drugs. Items 13, 15, 16, and 17 were reverse scored.

The PC-AAPPQ and PC-DDPPQ retained original structures and items, with language revised to align with a PC focus (Mahmoud et al., 2021, 2023). Terms like *drinker* and *drug user* were replaced with *individuals who drink alcohol* and *individuals who use drugs*. The PC-AAPPQ uses the same 5-point Likert format as the AAPPQ, with higher scores indicating more negative attitudes among the RNs and RPNs. The PC-DDPPQ also maintains the 5-point Likert scale, with higher scores reflecting more negative perceptions of individuals who use drugs. Reverse-scored items remained consistent with the original versions.

Although prior research has proposed alternative factor structures (Mahmoud et al., 2020, 2023), these structures were not supported by our data (Raynak et al., 2025). As a result, total and scale scores were calculated using the structure validated by Raynak et al. and applied in the analysis. For the total scores, results from the AAPPQ and PC-AAPPQ were combined, as were those from the DDPPQ and PC-DDPPQ. Figure 4.1 provides an overview of the study measures used to assess and analyze the nurses' attitudes toward PWUS.

Figure 4.1

Study Measures Used to Examine Nurses' Attitudes Toward PWUS
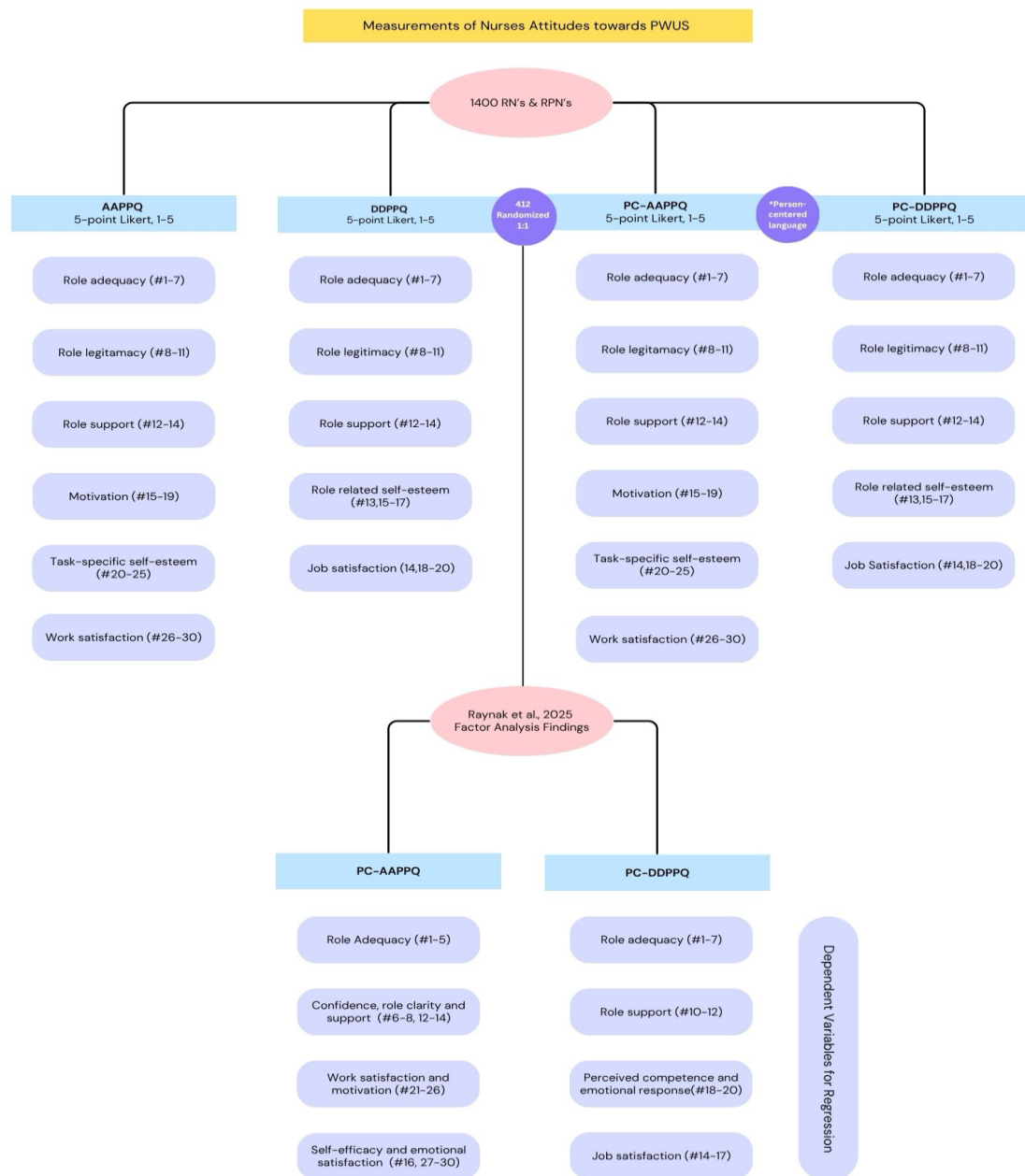
Level of Socially Desirable Responding as Measured by the Balanced Inventory of

Desirable Responding (BIDR) Questionnaire

The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984) is a 40-item self-report instrument designed to assess social desirability bias, or the tendency to present oneself in a favourable light. It consists of two scales: self-deceptive enhancement (SDE; Items 1–20), which measures unconscious self-favoring bias, and impression management (IM; Items 21–40), which measures deliberate response distortion. Each item is rated on a 7-point Likert scale ranging from 0 (*not true*) to 6 (*very true*). The BIDR has demonstrated good psychometric properties, with internal consistency coefficients of $\alpha = .83$ and test-retest reliabilities of .69 and .65 for the scales (Paulhus & Reid, 1991).

For scoring, a response of 6 or 7 on each item was scored as 1, and all other responses were scored as 0, consistent with standard BIDR scoring procedures. Prior to dichotomization, the following items were reverse scored: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 21, 23, 25, 27, 29, 31, 33, 35, 37, and 39. Scores for each scale ranged from 0 to 20, with higher scores indicating greater tendencies toward socially desirable responding.

Workload Measured by the MISSCARE Questionnaire

The MISSCARE Questionnaire is a two-part tool developed to assess the extent of missed nursing care. Part A contains 24 items, and Part B contains 17 items, both of which follow a three-factor structure. Part A is measured using a 5-point Likert scale of responses ranging from 1 (*always missed*) to 5 (*never missed*). Part B uses a 4-point Likert scale of responses ranging from 1 (*significant reason*) to 4 (*not a reason for missed care*). The MISSCARE Questionnaire has demonstrated strong consistency and reliability ($\alpha = .64–.86$; Kalisch & Williams, 2009). Statistical analyses also have shown good model fit, with Bartlett's

test of sphericity ($p < .001$), a KMO value of .9, RMSEA = .054, CFI = .89, IFI = .9, and TLI = .85. The Pearson correlation coefficients are .87 for Part A and .86 for Part B (Kalisch & Williams, 2009).

Part A yields a total score range of 24 to 120, with higher scores indicating fewer missed care tasks. Part B produces a total score range of 17 to 68, with lower scores reflecting more significant reasons contributing to missed care and higher scores suggesting fewer perceived barriers. Permission to use the MISSCARE Questionnaire was obtained from its creators (Kalisch & Williams, 2009).

Burnout Measured by Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI-HSS[MP])

Burnout was assessed using the Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI-HSS[MP]). The MBI-HSS(MP) holds 22 items divided into three scales: EE (Items 1, 2, 3, 6, 8, 13, 14, 16, 20); depersonalization (DP; Items 5, 10, 11, 15, 22); and personal accomplishment (PA; Items 4, 7, 9, 12, 17, 18, 19, 21). Each item is rated on a 7-point Likert scale ranging from 0 (*never*) to 6 (*every day*). The MBI-HSS(MP) has demonstrated strong reliability and validity ($\alpha = .73–.83$; Lin et al., 2022). For this study, scale scores were calculated by summing the item responses in each domain. Higher EE and DP scores and lower PA scores were interpreted as indicative of greater burnout, based on established scoring conventions. License to administer the MBI-HSS(MP) was obtained on October 11, 2024, from Mind Garden Inc.

Adverse Childhood Experiences Measured by the ACE Questionnaire

The Adverse Childhood Experiences (ACE) Questionnaire, originally developed by Felitti et al. (1998), is a 10-item, yes/no questionnaire that measures exposure to ACEs prior to

the age of 18 years. The score is calculated by summing the number of "yes" responses. A total score between 0 and 3 indicates a negative result, suggesting a low level of ACEs, and a total score of 4 or more signifies a positive result, indicating a moderate to high level of ACEs. For this study, the questionnaire was adapted into a five-item format to accommodate RNs and RPNs (e.g., time constraints [completing while on shift or on break]); work environment [busy, stressful, multiple interruptions]; and the sensitive nature of the questions [emotional triggers while at work]). In the modified version, scores were calculated similarly, with 0 to 2 considered a negative result, indicating a low level of ACEs, and 3 or more regarded as a positive result, indicating moderate to high levels of ACEs.

Rationale for Variable Selection

The independent variables included in this hierarchical regression model were selected based on prior empirical evidence and theoretical relevance to nurses' attitudes. Professional and personal characteristics were entered in Block 1 as stable control variables, including demographics and social desirability (measured by the BIDR), to account for background influences and response biases. Variables marked with statistical significance in previous studies were prioritized, though findings varied. Block 2 comprised key psychosocial stressors, ACEs, MISSCARE, and MBI-HSS[MP] measured using validated instruments, except for the modified ACE questionnaire. These stressors were chosen because of their documented impact on nurses' well-being. The hierarchical regression approach enabled isolation of the unique effects of psychosocial stressors on attitudes after controlling for baseline characteristics.

Data Management and Analysis

Study data were gathered and stored using REDCap, an electronic data capture platform hosted by the principal investigator's institution (Harris et al., 2009, 2019). To ensure anonymity and confidentiality, each participant in the current study was assigned a unique numeric identifier.

For the descriptive statistics, means and standard deviations were used for the quantitative variables, and frequencies and percentages were used for the categorical variables. Reliability of the AAPPQ, PC-AAPPQ, DDPPQ, and PC-DDPPQ scales was examined using Cronbach's alpha. After reporting descriptive statistics (mean, standard deviation, range), a comparison was performed between the scores of the original and PC versions for each scale using an independent samples t test to show similarities between the two versions, which then allowed us to combine them for further analysis. Unequal variances t tests were used when Levene's test showed a violation of equal variances assumption.

Multiple linear regression was used to examine the relationship between the attitudes of the RNs and RPNs and selected explanatory variables for the AAPPQ and DDPPQ scales, respectively. A hierarchical regression approach (Fien et al., 2022) was used to examine correlations between the scales and nine explanatory variables in Block 1 (professional and personal characteristics) and six additional explanatory variables in Block 2 (psychosocial stressors; see Figure 4.2), respectively. To conserve degrees of freedom and to simplify the interpretation of the results, the variable representing hours of undergraduate education and professional development in substance use and/or addictions was collapsed from five categories (0, 1–4, 5–8, 9–12, 13+ hours) to three (none, 1–8 hours, and 9+ hours). In addition, the unit of

work and the employment status of the nurse were combined into full time versus not and mental health in-patient unit versus not.

The *t* test was used to determine the statistical significance of each explanatory variable (regression coefficient *b*) to determine the extent of the change in attitudes for a change of one unit for each explanatory variable. Overall model fit was assessed using the *F* test. Adjusted R^2 for each step and the change in the *F* ratio and R^2 between the two blocks was used to determine if the addition of variables in Block 2 improved the model. The level of significance .05 was used for all inferential analysis. All analyses were conducted using SPSS v.30.

Figure 4.2

Visual Depiction of Hierachal Regression Explanatory Variables
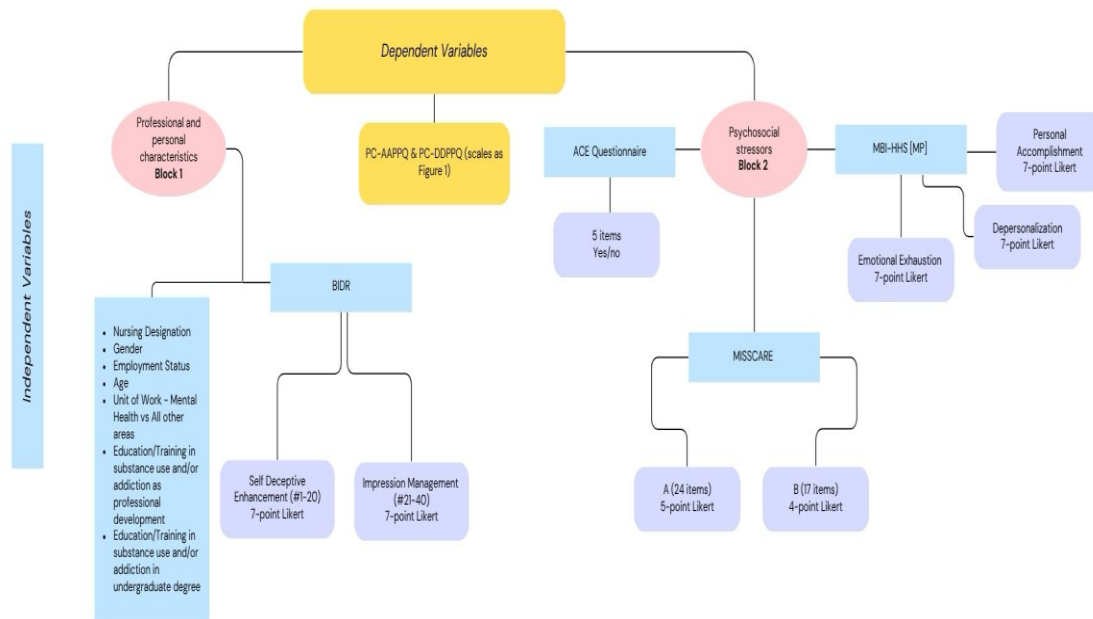
Results

Social Demographic Characteristics

Four-hundred and twelve ($N = 412$) nurses completed the surveys (response rate of 32%). The majority of the participants were women ($n = 358$, 89.9%) and RNs ($n = 343$, 83.3%). The ages of the participants ranged from 20 to 69 years ($M = 36.76$, $SD = 10.76$). Most of the participants had an undergraduate degree ($n = 259$, 62.9%), followed by a diploma ($n = 111$, 26.9%) or a graduate-level education ($n = 38$, 9.2%). Most of the RNs and RPNs had more than 10 years of experience in the profession ($n = 210$, 51.0%), and the majority of respondents were employed on a full-time basis ($n = 235$, 57.0%). The participants were asked questions about their prior education or training on substance use and/or addictions. In relation to professional development, the respondents reported the number of hours of training that they had received during their nursing careers, with the largest proportion indicating 1 to 4 hours ($n = 184$, 44.7%), followed by no training at all ($n = 113$, 27.4%). When asked about their perceived competence in caring for PWUS in the hospital setting, the participants rated their confidence on a scale of 1 (*not confident*) to 10 (*highly confident*), with a mean score of 6.39 ($SD = 2.08$; see Table 4.1).

Table 4.1

Participants' Characteristics

Characteristics	Frequency (%), *M, SD*
Nursing designation	
RPN	65 (15.8%)
RN	343 (83.3%)
Missing data	4 (1%)
Age ($n = 404$)	$M = 36.76$, $SD = 10.76$, range 20-69
Highest level of education	
Diploma	111 (26.9%)
Undergraduate degree	259 (62.9%)
Graduate degree (i.e., Master's)	38 (9.2%)
Missing	4 (1%)
Unit of work	
Critical care services	68 (16.6%)
Medical/surgical unit	120 (29.1%)
Mental health in-patient services	22 (5.3%)

Characteristics	Frequency (%), *M, SD*
Out-patient services	78 (18.9%)
Perioperative services	49 (11.9%)
Women and children services	49 (11.9%)
Other	15 (3.6%)
Missing	11 (2.7%)
Work status	
Full time	236 (57.3%)
Part time	118 (28.6%)
Casual	45 (10.9%)
Experience in role	
Up to 6 months	24 (5.8%)
> 6 months-2 yr	44 (10.7%)
> 2 to 5 yr	60 (14.6%)
> 5 to 10 yr	66 (16%)
> 10 yr	210 (51%)
Missing	8(1.9%)
Experience in current unit	
Up to 6 months	43 (10.4%)
> 6 months-2 yr	80 (19.4%)
> 2 to 5 yr	92 (22.3%)
> 5 to 10 yr	83 (20.1%)
> 10 yr	104 (25.2%)
Missing	10 (2.4%)
Education/training received on substance use and/or addictions in nursing career	
None	113 (27.4%)
1-4 hr	184 (44.7%)
5-8 hr	56 (13.6%)
9-12 hr	13 (3.2%)
> 13 or more hr	39 (9.5%)
Missing	7 (1.7%)
Hours of education/training received in undergraduate nursing program on substance use and/or addictions	
None	70 (17.0%)
1-4 hr	175 (42.5%)
5-8 hr	71 (17.2%)
8-12 hr	48 (11.7%)
> 13 or more hr	35 (8.5%)
Missing	13 (3.2%)
Competence level (1-10, with 1 being *not confident* and 10 being *highly confident*) caring for PWUS in the hospital setting (*n* = 380)	*M* = 6.39, *SD* = 2.08

Note. N = 412

Data Preparation

We began the analysis by examining each randomization arm independently (AAPPQ &

DDPPQ and PC-AAPPQ & PC-DDPPQ). Scales were computed by summing the corresponding

item responses. Cronbach's alpha values for both measures exceeded 0.7, with the exception of

one scale (perceived competence and emotional response, 0.66) on the PC-DDPPQ, with many

above 0.8, indicating good scale reliability. These results are presented in Table 4.2, along with

the independent sample *t* tests, to assess similarities between the two versions. The results

revealed no significant differences in total scores and any of the scales, except for the

confidence, role clarity, and support scale in the AAPPQ. Importantly, these *t* tests had

considerable statistical power, and although this one *p* value was below the .05 threshold

($p = .043$), the mean difference in total score was only 0.97, suggesting little influence on

interpretation. Based on these findings, we determined that the data could be pooled for

subsequent analysis to yield one sample containing all respondents from the AAPPQ/DDPPQ

and the PC-AAPPQ and PC-DDPPQ (total score).

Table 4.2

AAPPQ and PC-AAPPQ, DDPPQ and PC-DDPPQ Scale Descriptive Characteristics

Scale	No. of items	Cronbach's alpha	*n*	*M* (*SD*)	Range	Comparison to PC-versions *t*(*df*), *p*
AAPPQ	22	0.89	153	60.66 (10.71)	33-95	*t*(297.47) = 1.32, *p* = .188
Role adequacy	5	0.92	170	11.94 (3.53)	5-25	t(334) = 0.68, p = .498
Confidence, role clarity and support	6	0.87	167	18.54 (4.64)	6-30	t(332) = 2.03, p = .043
Work satisfaction and motivation	6	0.81	163	15.21 (3.81)	6-25	*t*(322.61) = 0.38, *p* = .706
Self-efficacy and emotional satisfaction	5	0.78	170	15.16 (2.93)	8-24	*t*(338) = 1.15, *p* = .252
PC-AAPPQ	22	0.86	154	59.16 (9.19)	36-97	
Role adequacy	5	0.91	166	11.68 (3.34)	5-25	
Confidence, role clarity and support	6	0.84	167	17.57 (4.03)	6-30	
Work satisfaction and motivation	6	0.77	169	15.07 (3.39)	6-25	
Self-efficacy and emotional satisfaction	5	0.77	170	14.81 (2.75)	5-24	
DDPPQ	16	0.91	144	44.97 (9.65)	16-74	*t*(299) = -0.02, *p* = .983
Role adequacy	7	0.92	151	19.72 (5.31)	7-35	*t*(309) = -0.53, *p* = .595
Role support	3	0.93	158	8.93 (2.90)	3-15	*t*(320) = 1.11, *p* = .269
Perceived competence and emotional response	3	0.77	159	7.53 (2.30)	3-15	*t*(321) = 1.10, *p* = .272
Job satisfaction	3	0.77	162	8.78 (2.08)	3-15	*t*(322) = -0.33, *p* = .585
PC-DDPPQ	16	0.87	157	44.99 (8.07)	25-70	
Role adequacy	7	0.90	160	20.03 (4.95)	7-35	
Role support	3	0.90	164	8.60 (2.48)	3-15	

Scale	No. of items	Cronbach's alpha	n	M (SD)	Range	Comparison to PC-versions $t(df)$, p
Perceived competence and emotional response	3	0.66	164	7.27 (2.05)	3-13	
Job satisfaction	3	0.77	162	8.90 (1.99)	4-15	

We then used the total score for the scales for each measure (AAPPQ and DDPPQ) as the dependent variable in the regression models. Block 1 (professional and personal characteristics) consisted of nine explanatory variables (i.e., age, gender, nursing designation, education/training in substance use and/or addiction in undergraduate degree and as professional development, unit of work, employment status, and BIDR). Block 2 (psychosocial stressors) included the aforementioned six explanatory variables, along with the addition of MISSCARE (A&B), MBI-HSS-MP (EE, DP, PA), and ACE score. Table 4.3 presents the results, with no evidence of collinearity between variables being found. Tables 4.5 and 4.6 present the results of the DDPPQ and AAPPQ regressions, respectively.

Table 4.5

Regression Analysis for AAPPQ Scales

Explanatory variable	Role adequacy (n = 230) Block 2 (b, SE)	t, p	Confidence, role clarity and support (n = 234) Block 2 (b, SE)	t, p	Work satisfaction and motivation (n = 236) Block 2 (b, SE)	t, p	Self-efficacy and emotional satisfaction (n = 241) Block 2 (b, SE)	t, p
Constant	12.79 (2.23)	5.73 <.001	16.18 (2.85)	5.67 <.001	15.02 (2.16)	6.96 <.001	16.43 (1.91)	8.61 <.001
Age	0.03 (0.02)	1.07 .284	0.08 (0.03)	2.67 .008	0.01 (0.02)	0.37 .709	-0.001 (0.02)	-0.04 .970
Gender (female, compared to male)	0.69 (0.69)	1.00 .319	1.64 (0.88)	1.87 .063	1.54 (0.66)	2.33 .021	-0.31 (0.59)	-0.53 .598
Nursing designation (RPN, compared to RN)	0.21 (0.71)	0.30 .768	-1.58 (0.90)	-1.76 .080	-0.14 (0.67)	-0.21 .834	-0.24 (0.60)	-0.41 .684
Education/training in substance use and/or addiction as professional development (compared to no education)								
1-8 hours	-1.11 (0.54)	-2.05 .041	-1.27 (0.68)	-1.87 .063	-1.07 (0.52)	-2.07 .040	-0.39 (0.46)	-0.85 .398
9+ hours	-2.34 (0.84)	-2.79 .006	-2.38 (1.07)	-2.22 .027	-1.59 (0.82)	-1.94 .053	-1.99 (0.71)	-2.81 .005
Education/training in substance use and/or addiction in undergraduate education (compared to no education)								
1-8 hours	-0.15 (0.70)	-0.21 .833	0.55 (0.87)	0.63 0.527	0.93 (0.67)	1.38 .168	-0.43 (0.60)	-0.72 .476
9+ hours	-1.25 (0.82)	-1.52 .130	-0.69 (1.04)	-.66 0.509	-0.34 (0.80)	-0.42 .675	-0.53 (0.71)	-0.75 .455
Mental health vs. all other units	-0.87 (0.93)	-0.93 .353	-2.15 (1.16)	-1.86 .064	-1.38 (0.88)	-1.56 .119	-1.44 (0.76)	-1.88 .061
Full-time employment vs. casual and part-time employment	0.19 (0.49)	0.39 .699	-0.39 (0.62)	-0.63 .528	0.24 (0.47)	0.50 .615	-0.08 (0.41)	-0.20 .843
BIDR SDE	-0.17 (0.08)	-2.11 .036	-0.31 (0.10)	-3.01 .003	-0.19 (0.08)	-2.37 .019	0.03 (0.07)	0.47 .642

(Block 1)

Explanatory variable	Role adequacy (n = 230)		Confidence, role clarity and support (n = 234)		Work satisfaction and motivation (n = 236)		Self-efficacy and emotional satisfaction (n = 241)	
	Block 2 (b, SE)	t, p	Block 2 (b, SE)	t, p	Block 2 (b, SE)	t, p	Block 2 (b, SE)	t, p
BIDR IM	0.05 (0.07)	0.76 0.448	0.22 (0.09)	2.36 .019	-0.04 (0.07)	-0.57 .567	-0.03 (0.06)	-.53 0.595
MISSCARE (A)	-0.01 (0.02)	-0.90 .367	0.02 (0.02)	1.05 .294	-0.02 (0.01)	-1.58 .115	-0.03 (0.01)	-2.12 .035
MISSCARE (B)	0.05 (0.03)	1.96 .051	-0.04 (0.03)	-1.05 .294	0.02 (0.03)	0.81 .418	0.04 (0.02)	1.68 .095
ACE Score	-0.18 (0.17)	-1.07 .286	-0.08 (0.22)	-0.37 .714	0.19 (0.17)	1.15 .251	-0.18 (0.15)	-1.23 .219
MBI- HSS-MP (EE)	-0.01 (0.23)	-0.05 .959	0.18 (0.29)	0.63 .530	0.34 (0.22)	1.55 .122	-0.47 (0.19)	-2.47 .014
MBI- HSS-MP (DP)	0.02 (0.23)	0.07 .943	-0.01 (0.29)	-0.05 .961	0.65 (0.22)	2.92 .004	0.95 (0.20)	4.90 < .001
MBI- HSS-MP (PA)	-0.54 (0.23)	-2.14 .034	-0.26 (0.32)	-0.80 .424	-0.59 (0.25)	-2.42 .017	-0.05 (0.22)	-0.23 .816
Model fit Block 1	$F(11, 218) = 2.55$, $p = .005$, $R^2 = 11.4\%$		$F(11,222) = 3.82$, $p \leq .001$, $R^2 = 15.9\%$		$F(11,224) = 3.88$, $p < .001$, $R^2 = 16.0\%$		$F(11,229) = 2.24$, $p = .013$, $R^2 = 9.7\%$	
Model fit Block 2	$F(17, 212) = 2.28$, $p = .004$, $R^2 = 15.4\%$		$F(17, 216) = 2.63$, $p < .001$ $R^2 = 17.1\%$		$F(17, 218) = 5.12$, $p < .001$, $R^2 = 28.5\%$		$F(17,223) = 3.45$, $p < .001$, $R^2 = 20.8\%$	
Change from Block 1 to Block 2	$F(6,212) = 1.68$, $p = .128$, Change in $R^2 = 4.0\%$		$F(6,216) = 0.53$, $p = .783$, Change in $R^2 = 1.2\%$		F(6,218) = 6.36, $p < .001$, Change in $R^2 = 12.5\%$		F(6,223) = 5.21, $p < .001$, Change in $R^2 = 11.1\%$	

The leftmost margin contains the rotated label "Block 2" spanning the BIDR IM through MBI-HSS-MP (PA) rows.

Table 4.6

Regression Analysis for DDPPQ Scales

	Explanatory variable	Role adequacy (n = 230) Block 2 (b, SE)	t, p	Role support (n = 240) Block 2 (b, SE)	t, p	Perceived competence and emotional response (n = 239) Block 2 (b, SE)	t, p	Job satisfaction (n = 240) Block 2 (b, SE)	t, p
Block 1	Constant	18.50 (3.29)	5.62 < .001	7.12 (1.77)	4.02 < .001	6.08 (1.39)	4.39 < .001	9.58 (1.33)	7.20 <.001
	Age	0.07 (0.04)	1.83 .068	0.06 (0.02)	2.91 .004	0.01 (0.02)	0.58 .566	0.002 (0.02)	0.13 .900
	Gender (female, compared to male)	2.27 (0.99)	2.29 .023	0.19 (0.54)	0.35 .726	-0.01 (0.43)	-0.03 .975	0.21 (0.41)	.52 .607
	Nursing designation (RPN, compared to RN)	-1.38 (1.02)	-1.35 .178	-0.68 (0.55)	-1.22 .223	-1.13 (0.43)	-2.62 .009	-0.16 (0.43)	-0.37 .715
	Education/training in substance use and/or addiction as professional development (compared to no education)								
	1-8 hours	-0.51 (0.79)	-0.64 .521	-0.37 (0.42)	-0.88 .379	-0.22 (0.33)	-0.66 .509	-0.37 (0.32)	-1.16 .249
	9+ hours	-3.99 (1.21)	-3.30 .001	-1.47 (0.65)	-2.25 .026	-1.36 (0.51)	-2.67 .008	-1.46 (0.49)	-2.96 .003
	Education/training in substance use and/or addiction in undergraduate education (compared to no education)								
	1-8 hours	-0.47 (1.05)	-0.45 .654	-0.62 (0.55)	-1.14 .255	0.67 (0.43)	1.57 .117	-0.02 (0.41)	-0.04 .968
	9+ hours	-2.12 (1.24)	-1.71 .089	-0.83 (0.65)	-1.28 .202	-0.08 (0.51)	-0.15 .882	-0.40 (0.49)	-.80 .423
	Mental health vs. all other units	-3.18 (1.32)	-2.41 .017	-2.21 (0.71)	-3.13 .002	-1.29 (0.55)	-2.33 .021	-1.38 (0.53)	-2.59 .010
	Full-time employment vs. casual and part-time	0.67 (0.71)	0.93 .352	-0.40 (0.38)	-1.05 .297	-0.04 (0.30)	-0.12 .902	0.45 (0.29)	1.54 .124

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	Explanatory variable	Role adequacy ($n = 230$) Block 2 (b, SE)	t, p	Role support ($n = 240$) Block 2 (b, SE)	t, p	Perceived competence and emotional response ($n = 239$) Block 2 (b, SE)	t, p	Job satisfaction ($n = 240$) Block 2 (b, SE)	t, p
Block 2	BIDR SDE	-0.26 (0.12)	-2.17 .032	-0.18 (0.06)	-2.78 .006	-0.02 (0.05)	-0.47 .063	-0.01 (0.05)	-.18 .857
	BIDR IM	0.27 (0.11)	2.50 .013	0.09 (0.06)	1.63 .105	-0.05 (0.04)	-1.19 .236	0.03 (0.04)	.77 .444
	MISSCARE (A)	0.03 (0.02)	1.19 .234	0.01 (0.01)	0.90 .370	-0.01 (0.01)	-0.64 .524	-0.02 (0.01)	-2.02 .044
	MISSCARE (B)	0.01 (0.04)	0.36 .716	0.002 (0.02)	0.09 .932	0.03 (0.02)	2.01 .046	0.02 (0.02)	1.24 .218
	ACE Score	-0.01 (0.26)	-0.05 .962	-0.02 (0.14)	-0.15 .884	0.10 (0.11)	0.93 .352	-0.002 (0.11)	-0.02 0.986
	MBI- HSS-MP (EE)	-0.19 (0.34)	-0.55 .584	0.03 (0.18)	0.16 .877	0.04 (0.14)	0.27 .785	-0.34 (0.13)	-2.56 .011
	MBI- HSS-MP (DP)	0.11 (0.34)	0.32 .747	0.18 (0.18)	1.02 .309	0.35 (0.14)	2.49 .013	0.57 (0.14)	4.16 < .001
	MBI- HSS-MP (PA)	-0.89 (0.38)	-2.35 .020	-0.01 (0.20)	-0.06 .949	-0.12 (0.16)	-0.77 .440	-0.13 (0.15)	-0.84 .405
Model Fit Block 1		$F(11,218) = 4.07$, $p < .001$, $R^2 = 17.0\%$		$F(11,228) = 4.14$, $p < .001$, $R^2 = 16.7\%$		$F(11,227) = 3.34$, $p < .001$, $R^2 = 14.3\%$		$F(11,228) = 2.39$, $p = .008$, $R^2 = 10.3\%$	
Model Fit Block 2		$F(17, 212) = 3.25$, $p < .001$, $R^2 = 20.7\%$		$F(17, 222) = 2.91$, $p < .001$, $R^2 = 18.2\%$		$F(17, 221) = 3.70$, $p < .001$, $R^2 = 22.1\%$		$F(17, 222) = 2.94$, $p < .001$, $R^2 = 18.4\%$	
Change from Block 1 to Block 2		$F(6,212) = 1.63$, $p = .140$, Change in $R^2 = 3.7\%$		$F(6,222) = 0.72$, $p = .678$, Change in $R^2 = 1.6\%$		$F(6,221) = 3.73$, $p = .001$, Change in $R^2 = 7.9\%$		$F(6,222) = 3.66$, $p = .002$, Change in $R^2 = 8.1\%$	

Summary of Multivariable Regressions

For the AAPPQ measure, age was a significantly associated with the confidence, role clarity, and support scale, with older nurses reporting more negative attitudes. Female versus male nurses reported significantly more negative attitudes on the work satisfaction and motivation scale. Education or training in substance use and/or addiction as professional development was statistically associated with all four scales, with greater training associated with more positive attitudes.

The BIDR SDE score was significantly associated with three scales: role adequacy, confidence, role clarity and support, as well as work satisfaction and motivation, where higher SDE scores corresponded with more positive attitudes. In contrast, the BIDR IM score was significantly associated only with the confidence, role clarity and support scale, where higher IM scores were linked to more negative attitudes.

Higher MISSCARE A scores were significantly associated with more positive attitudes on the self-efficacy and emotional satisfaction scale. Similarly, higher scores on the MBI-HSS-MP (EE) scale were also associated with more positive attitudes on self-efficacy and emotional satisfaction. The MBI-HSS-MP (DP) scale was significantly associated with work satisfaction and motivation as well as self-efficacy and emotional satisfaction, with higher DP scores linked to more negative attitudes. Finally, the MBI-HSS-MP (PA) scale was significantly associated with role adequacy as well as work satisfaction and motivation, where higher PA scores were related to more positive attitudes.

For the DDPPQ measure, age was significantly associated with the role support scale, with older nurses reporting more negative feelings in this domain. Female versus male nurses had significantly more negative attitudes on the role adequacy scale. RPNs reported significantly

more positive attitudes than RNs on the perceived competence and emotional response scale. Education or training in substance use and/or addiction as professional development was associated with all four scales, with more training associated with more positive attitudes. Working in a mental health in-patient care unit also was associated across all four scales, with these nurses reporting more positive attitudes than those working in other units.

The BIDR SDE score was significantly associated with the role adequacy and role support scales, with higher SDE scores corresponding to more positive attitudes. The BIDR IM score was significant only for role adequacy, where higher scores were associated with more negative attitudes. MISSCARE A was significantly associated with more positive attitudes on the job satisfaction scale, while MISSCARE B was associated with more negative attitudes on the perceived competence and emotional response scale.

Higher scores on the MBI-HSS-MP (EE) scale were significantly associated with more positive attitudes on job satisfaction. In contrast, the MBI-HSS-MP (DP) scale was significantly associated with more negative attitudes on both the perceived competence and job satisfaction scales. The MBI-HSS-MP (PA) was associated with the role adequacy scale, with higher PA scores linked to more positive attitudes.

Discussion

The purpose of this study was to examine if contextual elements such as workload, burnout, ACEs, and social desirability were associated with nurses' attitudes toward PWUS in the hospital setting. Our regression analyses identified several explanatory variables influencing nurses' attitudes toward PWUS, though their effects varied across scales and between measures.

For both the AAPPQ and DDPPQ, age was associated with more negative attitudes in specific scales (e.g., confidence, role clarity and support [AAPPQ] and role support [DDPPQ]),

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aligning with prior research indicating that increased years of nursing experience were associated with more negative attitudes toward PWUS (Antill Keener et al., 2023; Mahmoud et al., 2021; Molina-Mula et al., 2018). Gender differences also were observed, with female nurses reporting more negative attitudes on certain scales (e.g., work satisfaction and motivation [AAPPQ], and role adequacy [DDPPQ]), although the extant literature has presented mixed findings regarding gender-related attitudes toward PWUS. For example, Molina-Mula et al. (2018), who examined emergency and mental health nurses' attitudes toward individuals with alcohol use disorders, found that male nurses compared to female nurses exhibited a higher degree of rejection toward individuals with alcohol use disorder. Nursing designation emerged as a significant explanatory variable, as measured by the DDPPQ (e.g., perceived competence and emotional response), in which RPNs reported more positive attitudes on specific scales compared to RNs.

In addition, nurses' social desirability, as measured by the BIDR, was sometimes associated with attitudes toward PWUS across both measures (e.g., SDE; role adequacy, confidence, role clarity and support, work satisfaction and motivation, IM; confidence, role clarity and support [AAPPQ], and role adequacy, role support, IM; role adequacy [DDPPQ]). These findings reflect the influence of social desirability bias, meaning that individuals respond in ways that they believe are socially acceptable rather than express their true feelings. In the context of nursing, a profession that emphasizes nonjudgemental care and holds a highly respected position in society, nurses may consciously or unconsciously suppress negative attitudes toward PWUS to align with professional norms and societal expectations. This tendency to present oneself in a favourable light can lead to discrepancies between actual beliefs and reported attitudes, even in anonymous surveys. It is possible that the observed associations between the exploratory variables and the nurses' attitudes were conservative estimates and that

stronger relationships may have existed than those captured in self-report measures. Although the inclusion of the BIDR helped to identify and quantify this bias, future researchers might consider controlling for social desirability in analytic models or using mixed methods approaches to better contextualize self-report data. These steps could help to reduce the impact of socially desirable responses and improve the accuracy of attitude assessments.

Further analysis revealed that missed nursing care, as measured by the MISSCARE survey, and burnout, as assessed by the MBI-HSS-MP, exhibited variable associations with nurses' attitudes toward PWUS across the AAPPQ and DDPPQ measures, with some scales showing significant associations. For example, missed care (e.g., MISSCARE A) was related significantly to factors such as self-efficacy, emotional satisfaction (AAPPQ), and job satisfaction (DDPPQ). Similarly, certain dimensions of burnout (e.g., MBI-HSS-MP) were significantly associated with work satisfaction (AAPPQ) as well as perceived competence and emotional response (DDPPQ).

However, not all relationships were found to be correlated statistically. Overall, the inconsistencies across these scales and between both measures observed limited our ability to draw definitive conclusions, indicating that the impact of missed nursing care and burnout on nurses' attitudes toward PWUS may have been context dependent and may warrant further investigation to understand these complex relationships. Therefore, these aforementioned findings should be interpreted with caution, and future researchers should aim to explore these variables further to determine if consistent patterns emerge.

Lastly, ACEs were found to have no significant association with either measure. Previous research has shown a significant association between nurses' attitudes and their personal connections to individuals who use substances (e.g., friends, family members, or coworkers),

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often resulting in more positive perspectives. However, to the researchers' knowledge, no researchers have examined broader components of the ACE Questionnaire as potential explanatory variables for nurses' attitudes toward PWUS. Based on our findings, such an exploration may not be warranted. Although ACE scores did not appear to influence the nurses' attitudes toward PWUS, one variable that consistently showed an association across both attitude measures was education/training in substance use and/or addiction as professional development.

Our study demonstrated that 1+ hour of education/training in substance use and/or addiction as professional development was associated with more positive attitudes toward PWUS. Notably, a dose-response relationship was observed, with more hours of training (e.g., 9+ hours), in comparison to no training, linked to progressively more positive attitudes, strengthening the case for a potential causal relationship. Educational interventions have consistently demonstrated efficacy in enhancing nurses' attitudes toward PWUS, though variations in education duration, interventions examined, and teaching approaches complicate the establishment of standardized recommendations for health care organizations.

Jackman et al. (2020) reported sustained improvements in nurses' perceptions following an 8-hour educational workshop, and Mitchell et al. (2017) observed attitude shifts after a 90-minute training session. Similarly, Manzotti et al. (2023) found that a brief 2-hour SBIRT (screening, brief intervention, and referral to treatment) training session significantly improved nurses' attitudes toward PWUS. SBIRT-specific education has been found to be particularly effective, emphasizing early screening and intervention within the health care setting, and has been shown to enhance nurses' perceptions of role adequacy, legitimacy, motivation, and task-specific self-esteem, as measured by the AAPPQ and DDPPQ (Manzotti et al., 2023). Lastly, empathy-based interventions led by mental health professionals have demonstrated effect,

fostering more compassionate and nonjudgemental attitudes among nurses and other health care providers (Kratovil et al., 2023; Vottero et al., 2023).

Although the literature on education and training as professional development for graduate nurses has been sparse, studies focusing on nursing students have offered transferable insights. Didactic education followed by clinical experience has proven effective in improving students' attitudes (Damewood et al., 2022; Goodhew et al., 2023; Mahmoud et al., 2018). For instance, Mahmoud et al. (2018) found that students had improved attitudes after participating in 90-minute SBIRT training, followed by a 12-week clinical placement to apply these skills. These nursing students benefited from the involvement of individuals with lived experience integrated into the teaching. Learning from these individuals allowed the nursing students to gain greater perspective and understanding, as well as accurate beliefs surrounding PWUS, leading to less biased attitudes, increased empathy, and overall improved attitudes toward PWUS (Goodhew et al., 2023; Martinez & Murphy-Parker, 2003). Dion and Griggs (2020) found that a stigma-reduction intervention incorporating expert presentations, lived experience narratives, and person-first language significantly improved attitudes and reduced perceived stigma among nursing students.

These studies collectively highlighted the potential of educational interventions to positively influence nurses' attitudes toward PWUS, and they also highlighted the considerable variability in education duration, interventions examined, and teaching approaches. This diversity poses challenges for health care organizations aiming to design and implement effective educational programs. A recent systematic review and meta-analysis by Sapri et al. (2022) concluded that educational interventions can enhance nurses' evidence-based practice

knowledge, skills, confidence, and attitudes significantly, particularly when employing multimodal delivery methods such as lectures, group discussions, and hands-on practice.

Didactic education techniques have demonstrated effectiveness across student and graduate nurse populations, and they should be integrated into future educational initiatives to improve nurses' attitudes toward PWUS (Damewood et al., 2022; Goodhew et al., 2023; Mahmoud et al., 2018; Manzotti et al., 2023). Even though clinical practicums have benefitted students by bridging theoretical knowledge with practical application, this approach may not be directly transferable to graduate nurses, who typically possess experience caring for PWUS (Goodhew et al., 2023; Mahmoud et al., 2018). Nevertheless, incorporating elements such as SBIRT content and lived experiences has proven impactful and should be considered when developing educational initiatives in this area (Mahmoud et al., 2018; Manzotti et al., 2023; Mitchell et al., 2017).

Given the wide range of educational timeframes reported in the literature, health care organizations may be advised to assess how much time is truly needed to deliver content effectively, rather than rely on arbitrary duration benchmarks. Our findings suggest that a dose-response relationship, with more extensive education, specifically 9 or more hours of education/training in substance use and/or addiction, was associated with more positive attitudes toward PWUS. This finding highlights the importance of prioritizing longer duration initiatives when designing and implementing educational interventions. In the absence of specific, evidence-based recommendations for optimal delivery, health care organizations should consider their institutional context and the populations whom they serve, previous experiences with educational programming, and the unique learning needs of their nursing staff. Tailoring interventions to local realities is more likely to promote enduring improvements in nurses'

attitudes toward PWUS and contribute to more compassionate clinical environments. Future researchers should aim to confirm the observed dose-response relationship; explore potential causal links; and determine the optimal number of education hours, be they 9, 10, 12, or another threshold that produces the most beneficial outcomes.

Although our findings indicate that receiving at least 1 hour of education/training in substance use and/or addiction as part of professional development is associated with more positive attitudes toward PWUS, no such association was observed for education received during undergraduate training. Collinearity diagnostics confirmed that these two forms of education were distinct analytically. This discrepancy may have reflected differences in the relevance or recency of the content because many participants may have limited recall of substance use education delivered during their undergraduate studies, particularly if they graduated several years ago. In addition, once nurses begin practising, undergraduate education may feel less applicable, whereas professional development opportunities often are more timely, more relevant to clinical practice, and more impactful in shaping attitudes.

Although educational interventions may appear effective improving nurses' attitudes toward PWUS, it remains unclear whether these attitudinal shifts translate into meaningful changes in patient care. Most studies in this area have focused on provider self-report measures, leaving a gap in understanding how patients experience care from nurses who have received such training. Future researchers should incorporate the perspectives of PWUS to assess whether improvements in nurses' attitudes, as influenced by education, will result in more compassionate, respectful, and equitable care. Understanding the patient experience is essential to determining the true impact of these interventions and ensuring that educational efforts lead to tangible improvements in health outcomes and care quality.

The last significant finding is that the nurses working in mental health in-patient units demonstrated significantly more positive attitudes across all four scales of the DDPPQ when compared to nurses working in other health care settings. This finding aligns with previous research indicating that mental health nurses foster more favourable attitudes toward PWUS (Kratovil et al., 2023; Molina-Mula et al., 2018). The clinical environment of mental health in-patient units often necessitates frequent and sustained interactions with individuals experiencing mental health substance-related challenges. This exposure could hypothetically lead to increased familiarity and comfort managing complex cases, thereby reducing stigma and fostering more positive attitudes. However, Babiarcyk et al. (2024) found that the more often nurses were exposed to PWUS, the more they felt aggression toward them.

One other perspective could be that nurses in mental health often receive specialized training that emphasizes recovery-oriented practices, empathy, and nonjudgemental care approaches. This training fosters a deeper understanding of the complexities surrounding substance use disorders and equips nurses with the skills to manage such cases effectively. Sreeram et al. (2023) observed that mental health nurses demonstrated positive attitudes toward individuals with mental illness, maintaining dignity and respect while providing care, factors that are indicative of recovery-oriented practice.

Our findings indicate that nurses working in mental health in-patient units exhibited more positive attitudes toward PWUS, but this result may have reflected a self-selection bias, meaning that individuals drawn to mental health nursing inherently possess greater empathy or openness toward this patient population. Consequently, these attitudes may not be solely attributable to the work environment but rather to preexisting personal characteristics. Given that not all nurses can be placed in the mental health care setting, and considering the potential influence of individual

predispositions, these findings may have limited applicability informing organizational strategies. Therefore, although the association between mental health nursing and positive attitudes toward PWUS is noteworthy, it may not directly translate into actionable interventions across diverse clinical settings.

Conclusion

The findings suggest that further research is needed to clarify the extent to which workload and burnout influence nurses' attitudes toward PWUS in the hospital setting. These variables demonstrated significant associations with certain attitude scales, but they did not show significant associations across all measures (note: We expected some consistency in order to draw conclusions, but none was observed). This pattern highlighted the complexity of these relationships and emphasized the need for more in-depth exploration of the ways that these contextual factors influence individual nurses' perspectives toward PWUS.

If health care organizations aim to address negative attitudes among nurses, particular attention should be given to education and training in substance use and addiction as a strategy for professional development. Our study demonstrated that 1+ hour of education/training in substance use and/or addiction as professional development was associated with more positive attitudes toward PWUS. However, future researchers also should consider focusing on identifying the optimal duration, content, and delivery methods of such educational interventions. Moreover, it is critical to evaluate whether improvements in nurses' attitudes following education will translate into better patient experiences and outcomes as perceived by PWUS themselves.

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Introduction to Chapter 5

Chapter 2 (Manuscript 1) laid the groundwork for the investigation presented in Chapter 5, which explored nurses' perceptions of organizational support in caring for patients who use substances (PWUS) in the hospital setting. In this chapter, I examined the barriers that nurses face delivering quality care to PWUS and the supports that they recommended to improve care delivery. The research question and data analysis plan were developed in collaboration with the members of my doctoral committee. I independently conducted the analysis, which was verified and discussed with a master's student, Isabella Rynnanen (Lakehead University), in cases of discrepancy. I also led the interpretation and discussion of the findings, with support from Isabella. All members of my doctoral committee, Dr. Mushquash, Dr. Bédard, and Dr. Wood, contributed to the drafting and refinement of the final manuscript, which was reviewed and approved by my committee and is currently under peer review by *The Journal of Advanced Nursing*.

Abstract

Background

Substance use is prevalent across society and is frequently encountered in the hospital setting when patients who use substances (PWUS) are admitted for care. Nurses face significant challenges supporting this patient population, highlighting the need for health care organizations to understand the barriers to quality care and consider nurses' recommendations to improve the outcomes for these patients.

Methods

A cross-sectional survey was distributed to all 1,400 registered nurses (RNs) and registered practical nurses (RPNs) providing direct patient care at a teaching hospital in northwestern Ontario, Canada. Eligible nurses completed the survey online over 3 weeks, with recruitment supported by email, posters, internal announcements, and in-person drop-in sessions. Only nurses actively engaged in direct patient care were eligible to join the study, and nurses in advanced practice or leadership roles were excluded. Qualitative data obtained from the open-ended survey questions were analyzed using inductive content analysis.

Results

The findings presented in this study are part of a larger study involving 412 participants. Of those 412 participants, 288 provided responses to the qualitative component of the survey that are analyzed here. Six key barriers to the care of PWUS emerged: moral and professional tension, limited resources, knowledge gaps, staffing shortages and heavy workloads, lack of organizational policy, and negative provider attitudes. To address these challenges, the nurses recommended increased education, enhanced resources and staffing, clear hospital policies, and improved safety measures.

Conclusion

Organizations must prioritize supporting nursing staff with the resources, training, and collaborative structures needed to address the complex barriers caring for PWUS. Establishing specialized addiction services may be particularly effective because they can provide expert support, education, and coordinated care to address multiple barriers identified by nurses and improve outcomes for patients and nursing staff. Advancing health equity depends on institutional commitment to empowering nurses, whose frontline expertise is essential to reduce disparities and improve outcomes for vulnerable patient populations.

CHAPTER 5: NURSES ON THE FRONTLINE: THE NEED FOR ORGANIZATIONAL BACKING IN SUPPORTING NURSES WHO CARE FOR PATIENTS WHO USE SUBSTANCES IN THE HOSPITAL SETTING

Introduction

Substance use rates in Canada continue to rise across diverse environments, with associated harms increasing in the wake of the COVID-19 pandemic (Ledlie et al., 2024; Statistics Canada, 2024). Patients who use substances (PWUS) are significantly more likely to access hospital services, visiting emergency departments an average of 4.8 times more often and being admitted to hospital 7.1 times more frequently than the general population (Lewer et al., 2020). Notably, substance use often continues during hospital stays, with up to 40% of PWUS using substances while admitted (Grewal et al., 2015; Strike et al., 2020).

In the hospital setting, where abstinence-based policies are the norm, patients may attempt to conceal their substance use to avoid stigma or punitive consequences. In doing so, they often engage in high-risk behaviours that increase the likelihood of adverse health outcomes. These behaviours may include injecting with syringes of unknown origin, sharing injection equipment, using contaminated drugs or fillers, and preparing substances with tap water or saliva (McNeil et al., 2014; Sharma et al., 2017; Strike et al., 2020). These practices significantly elevate the risk of medical complications, including bloodstream infections, endocarditis, hepatitis C, and HIV (Larney et al., 2017; McCarthy et al., 2020). As a result, the hospital, intended to be a place of healing, can become a setting where substance use may lead to further harm and clinical setbacks.

Nurses who provide continuous, round-the-clock care often are the primary point of contact for PWUS in the hospital setting. Consequently, they are frequently tasked with

managing the risks and complexities of in-hospital substance use often without the institutional

supports necessary to do so safely and effectively. Researchers have consistently shown that

nurses feel underprepared and unsupported by their organizations when caring for this patient

population (Antill Keener et al., 2023; Kratovil et al., 2023; Nusbaum & Farkash, 2022).

Researchers have reported a lack of ongoing professional development, clear policies, and

practical resources to guide evidence-informed care (Antill Keener et al., 2023; Horner et al.,

2019; Kratovil et al., 2023; Morgan, 2014; Nusbaum & Farkash, 2022). In the absence of such

supports, nurses often must rely on personal judgement, which may inadvertently reinforce

abstinence-based approaches.

In navigating these challenges, some nurses have reported using reactive or risk-

management strategies to address immediate safety concerns. These strategies may include

increasing patient surveillance (e.g., involving security personnel; Hakala et al., 2020; Horner et

al., 2019); threatening discharge for noncompliance (Goodman et al., 2017; McNeil et al., 2014);

confiscating possessions such as drugs or paraphernalia (Pauly et al., 2015; Strike et al., 2020);

or withholding medications and care plans (Horner et al., 2019; Morgan, 2014; Neville & Roan,

2014). Although these responses may be motivated by concerns for patient and staff safety, they

can erode therapeutic relationships and contribute to patients leaving hospital prematurely,

subsequently missing critical opportunities for care (Simon et al., 2020).

Researchers have identified a pressing need for health care organizations to better support

nurses in delivering equitable, evidence-based care to PWUS. This support includes fostering

environments where nurses feel equipped to make informed and compassionate decisions in

complex care scenarios (Horner et al., 2019; Menard-Kocik & Caine, 2021). Understanding

nurses' perspectives is essential to identify system-level barriers and design appropriate supports

to assist nurses and patients alike. Therefore, the purpose of this study was to examine nurses'

experiences and perspectives caring for PWUS in the hospital setting by addressing two

questions: (a) What barriers do nurses face in delivering quality care to PWUS? and (b) What

supports do nurses recommend for organizations looking to improve the care that PWUS

receive?

Methods

Data for this study were obtained from a larger cross-sectional survey examining nurses'

attitudes toward PWUS in the hospital setting. Although the full survey included primarily

quantitative scales, the analysis presented here focuses exclusively on the qualitative data

derived from two open-ended questions. The two open-ended questions were developed

collaboratively by the primary researcher, the Mental Health and Addictions Clinical Nurse

Specialist, the manager of adult mental health services, and two experienced floor nurses.

The survey was conducted with registered nurses (RNs) and registered practical nurses

(RPNs) employed at a teaching hospital in northwestern Ontario, Canada. A convenience

sampling approach was used. On October 14, 2024, the professional practice department of the

hospital distributed the survey link via email to all 1,400 eligible RNs and RPNs, with a reminder

sent on October 28, 2024. The survey remained open for 3 weeks, closing on November 4, 2024.

Email recruitment was supplemented with posters featuring QR codes placed throughout the

hospital and announcements posted on the hospital's internal communication system. Six in-

person drop-in sessions offering a light lunch also were held.

Eligible participants were RNs and RPNs actively registered in Ontario and employed in

casual, part-time, full-time, or temporary roles involving direct patient care. Nurses not involved

in direct care, such as nurse practitioners; clinical nurse specialists; and those in leadership

positions (e.g., managers, coordinators, directors), were excluded from the study. They were excluded because they typically do not provide continuous, direct care. Their interactions with PWUS often are limited and sporadic, different from the sustained contact and therapeutic relationships developed by staff nurses.

Survey responses were collected using REDCap (Research Electronic Data Capture), a secure, web-based platform designed to support data capture for research (Harris et al., 2009, 2019). Each participant was assigned a unique alphanumeric identifier to maintain anonymity and confidentiality. All data were stored securely on a password-protected computer that only I had access to as the principal investigator. Ethics approval was obtained from the hospital's research ethics board on October 3, 2024 (REB #1469703).

Data Analysis

Open-ended survey responses were exported from REDCap and organized in Microsoft Excel for analysis. An inductive content analysis was conducted following the approach described by Vears and Gillam (2022) to facilitate coding and the emergence of further categories directly from the data without relying on predefined codes or theoretical frameworks.

The analysis began with the primary investigator and a research assistant independently performing a line-by-line review of an initial subset of 10 responses to generate preliminary codes. These codes were then discussed collaboratively, refined, and grouped into broader categories to ensure consensus on their relevance and applicability. A second set of 10 responses was piloted using the refined coding framework, with any discrepancies resolved through further discussion.

After finalizing the coding scheme, it was systematically applied to the remaining data. Throughout this phase, inconsistencies were addressed collaboratively to maintain analytical rigor. This procedure was conducted separately for each of the two open-ended survey questions. Following coding, the resulting categories were synthesized into an analytic narrative, incorporating representative quotations to illustrate each theme comprehensively. To complement the qualitative findings, coded data were imported into SPSS v.30 to calculate descriptive statistics, including frequency counts and percentages, to quantify the prevalence of categories across responses.

Results

A total of 288 participants were in the study, a subset of the 412 nurses who answered the survey (see Table 5.1). The majority were RNs (85.1%), with the remainder being RPNs (14.9%). Participants] ages ranged from 20 to 69 years ($M = 36.89$, $SD = 10.70$). Most participants identified as female (87.5%), with a smaller percentage identifying as male (11.8%). Nursing experience varied: 6.3% had up to 6 months of experience, 8.7% had more than 6 months to 2 years, 13.9% had more than 2 to 5 years, 18.8% had more than 5 to 10 years, and 51.4% had more than 10 years of experience (with 1% missing data). Most participants (92.7%) worked outside of mental health in-patient units.

In terms of education and training on substance use and/or addictions during their nursing careers, 26.4% reported receiving no training, 61.1% reported receiving 1 to 8 hours, and 12.5% received 9 or more hours. Finally, the participants reported a mean self-rated competence level of 6.44 ($SD = 2.09$) out of 10 in caring for PWUS in the hospital setting. The characteristics of nurses who provided qualitative input was similar to that of nurses who did not.

Table 5.1

Participants' Hospital Environment Characteristics

Characteristics	288 completed qualitative questions Frequency (%), M, SD	124 did not complete qualitative questions Frequency (%), M, SD	412 (all survey respondents) Frequency (%), M, SD
Nursing designation			
RPN	43 (14.9%)	22 (17.7%)	65 (15.8%)
RN	245 (85.1%)	98 (79.0%)	343 (83.3%)
Missing		4 (3.2%)	4 (1%)
Age	$M = 36.89$, $SD = 10.70$, range 20-69	$M = 36.36$ $SD = 10.95$ range 21-62	$M = 36.76$, $SD = 10.76$, range 20-69
Gender			
Female	252 (87.5%)	106 (85.5%)	358 (89.9%)
Male	34 (11.8%)	14 (11.3%)	48 (11.7%)
Missing	2 (0.7%)	4 (3.2%)	6(1.5%)
Employment status			
Full-time	164 (56.9%)	72 (58.1%)	236 (57.3%)
Part-time	80 (27.8%)	38 (30.6%)	118 (28.6%)
Casual	38 (13.2%)	7 (5.6%)	45 (10.9%)
Missing	6 (2.1%)	7 (5.6%)	
Highest level of education			
Diploma	76 (26.4%)	35 (28.2%)	111 (26.9%)
Undergraduate degree	186 (64.6%)	73 (58.9%)	259 (62.9%)
Graduate degree (i.e., master's)	26 (9.0%)	12 (97%)	38 (9.2)
Missing		4 (3.2%)	4 (1%)
Experience as a nurse			
Up to 6 months	18 (6.3%)	6 (4.8%)	24 (5.8%)
> 6 months-2 yr	25 (8.7%)	19 (15.3)	44 (10.7%)
> 2-5 yr	40 (13.9%)	20 (16.1%)	60 (14.6%)
> 5-10 yr	54 (18.8%)	12 (9.7%)	66 (16%)
> 10 yr	148 (51.4%)	62 (50%)	210 (51%)
Missing	3 (1%)	5 (4%)	8 (1.9%)
Unit of work			
Mental health inpatient	18 (6.3%)	4 (3.2%)	22 (5.3%)
All other care areas	267 (92.7%)	112 (90.3%)	379 (91.9%)
Missing		8 (6.5%)	11 (2.7%)
Education/training received on substance use and/or addictions in nursing career	76 (26.4%)	37 (29.8%)	113 (27.4%)
None	176 (61.1%)	64 (51.6%)	240 (58.3%)
1-8 hr	36 (12.5%)	16 (12.9%)	52 (12.7%)
9+ hr		7 (5.6%)	7 (1.7%)
Hr of education/training received in undergraduate nursing program on substance use and/or addictions			
None	50 (17.4%)	20 (16.1%)	70 (17.0%)
1-8 hr	177 (61.5%)	69 (55.6%)	246 (59.7%)

Characteristics	288 completed qualitative questions Frequency (%), M, SD	124 did not complete qualitative questions Frequency (%), M, SD	412 (all survey respondents) Frequency (%), M, SD
9+ hr	58 (20.1%)	25 (20.1%)	83 (20.2%)
Missing	3 (1.0%)	10 (8.1%)	13 (3.2%)
Competence level (1-10, with 1 being *not confident* and 10 being *highly confident*) caring for PWUS in the hospital setting (*n* = 284, missing 4)	*M* = 6.44, *SD* = 2.09	*M* = 6.24, *SD* = 2.05	*M* = 6.39, *SD* = 2.08

Note. N = 412

Six themes were identified from the qualitative analysis regarding the barriers that the

nurses faced delivering quality care to PWUS: moral and professional tension, lack of resources,

lack of knowledge, staffing shortages and heavy workloads, absence of organizational policy,

and health care providers' negative attitudes and stigma. In terms of recommended supports to

improve care for PWUS, another five key themes were identified: resources, education and

training, increased staffing, hospital policy, and safety measures (see Table 5.2).

Table 5.2

Themes Based on Participants' Responses

Barriers to delivering quality care	Frequency (%)
Patient behaviours and associated safety concerns	83 (28.9%)
Lack of resources	62 (21.6%)
Lack of knowledge	53 (18.5%)
Staffing shortages and high workload	52 (18.1%)
Absence of organizational policy	24 (8.3%)
Health care providers' negative attitudes	22 (7.6%)
Recommendations for improving care	
Resources	179 (62.4%)
Education and training	107 (37.3%)
Increased staffing	54 (18.8%)
Hospital policy	45 (15.7%)
Safety measures	20 (7.0%)

*Note. Percentages exceeded 100% because participants could report multiple themes in their responses.
n = 288

Themes Related to Barriers to Delivering Quality Care

Theme 1: Moral and Professional Tension

Internal Conflict and Role Strain

Nurses described an ongoing internal struggle between their desire to build therapeutic relationships with PWUS and their obligation to deliver safe, evidence-based care. This tension was compounded by behaviours such as patients leaving the unit to use substances, which complicated treatment plans and disrupted medication schedules. P23 explained, "Patients leaving for extended periods of time, delaying care and meds."

P165 elaborated:

Patients may be off of the unit for extended periods of time using substances. During this time, as the nurse, we are unable to safely monitor the patient. Often the patient returns very altered and sometimes requires medical intervention to reverse the substances. Many times, patients may leave the hospital against medical advice to use substances, and it is difficult to convince them to stay to finish their treatment.

These scenarios placed nurses in ethically fraught positions, particularly when expected to administer medications without knowing what substances had been consumed. P90 described it as "feeling reluctant to administer medications/procedures as feeling unsure what patients are using themselves, feeling like I can cause more harm to patient healing."

P152 shared the professional tension of having to be accountable in uncertain conditions by explaining "the ability to try and control what they're taking and how it will interact with what you're supposed to be giving them… ways you're supposed to be accountable for them as a professional."

The sense of responsibility persisted even when patients were off the unit and out of view. P49 explained this burden as "being able to know that the patient is safe because they are frequently not in the hospital room and still my responsibility."

These experiences reflect a deeper moral conflict: The nurses felt judged by their own professional standards, unable to provide the quality of care that they believed patients deserved. P271 summarized it as "[We] cannot provide safe care if administering medications when the patient just returned from outside and could have taken something."

Several nurses also perceived a lack of patient engagement, which added to their frustration and self-doubt. P46 noted, "Patients often are not compliant and consistent with care. They may leave the hospital and often don't take accountability for their health."

Safety Concerns and Lack of Institutional Protection

In addition to the internal moral strain, the nurses expressed concern about maintaining personal safety in dynamic and sometimes unpredictable care environments. They described encountering challenging behaviours, including verbal aggression and difficult interactions, both of which added emotional and physical demands to their roles. P196 stated, "[PWUS] are unpredictable, and it's scary as I don't want to get hurt."

P346 emphasized that "my personal safety [is at risk]; a majority of ER assaults arise from drug users." These fears were especially heightened during understaffed shifts.

P110 shared:

Sometimes we only have three nurses on shift at night. Patients have come in under the influence of drugs, in labour, with their partners also under the influence. We care for the patient as best we can, but we never know how the patient or their partner may react towards us, and we have few people on the unit to assist.

Theme 2: Lack of Resources

Community-Based Resources

The nurses identified the lack of community-based resources such as discharge facilities (e.g., detox centres in general, larger bed availability in detox centres) as a significant barrier to providing quality care for PWUS, particularly during discharge planning. This concern was frequently linked to the limited supports available to patients after leaving the hospital.

P50 described the "lack of resources to offer individuals that use alcohol or drugs who are looking for help/treatment," and other respondents expressed similar frustrations, woth P105 citing a general "lack of resources out of the hospital," and P101 sharing that "no resources to give them the adequate care they need."

Several respondents also pointed to the absence of local detoxification services and the scarcity of treatment beds in extant facilities, with P22 stating, "We have no rehab beds or detox, [so] what do they expect?"

Hospital-Based Resources

The respondents identified insufficient in-hospital resources, particularly regarding access to social work services outside regular business hours (e.g., 0800–1600). P220 remarked that there was "not enough help [for PWUS] (counselling, social work, etc.) during the night hours," and P136 suggested the need to "have social work on call for evenings and weekends."

P221 stated, "Social work is needed 24 hrs a day to help the clients and be present on the med/surg floors at night."

Many nurses also alluded to a general lack of support within the hospital. P30 noted the absence of "long-term support… no 'after hours' immediate support," and P2 pointed to the lack of an "adequate support system." However, these responses often were vague and did not clearly

specify the nature of the missing support. Although these comments were often nonspecific, they pointed to a perceived gap in comprehensive care.

"Support" in this context may encompass a wide range of resources, including hospital bed availability, access to counselling and social work services, adequate funding, discharge supports (e.g., detox facilities, housing), socioeconomic assistance, and family care access. These findings suggest a fragmentation between in-hospital care and broader health and social services, highlighting a critical disconnect in the continuum of care for PWUS.

Theme 3: Lack of Knowledge

The respondents reported a lack of knowledge as a barrier to caring for PWUS, particularly in areas such as pain management, medication safety, available community resources or referrals, and counselling techniques.

P83 mentioned their "lack of experience/knowledge in appropriate dosage to treat postop pain. No education for this, only on-the-job experience."

P169 said, "how to manage their pain, what's a safe amount of medication to give, how to manage when they bring in illegal drugs or are using outside."

Other nurses such as P171 broadly emphasized the need for "education and proper training." Several nurses also expressed concern about lacking knowledge about which substances their patients had used and had posed risks when administering potentially contraindicated medications.

P56 described the "fear about nondisclosure," stating that "I worry that something I do can cause them more harm if they have other substances on board. This comment reflected the broader lack of knowledge of how to manage medications safely in the context of substance use.

The nurses also frequently noted a lack of knowledge of ways to provide counselling and communicate effectively with PWUS, further compromising the delivery of quality care. One nurse commented wanting to know more about motivational interview techniques and how to interact and respond with PWUS in a caring and informative manner.

Theme 4: Staffing Shortages and Heavy Workloads

Staffing shortages and heavy workloads were identified as barriers to providing quality care to PWUS. The nurses described their limited ability to conduct thorough assessments and engage in meaningful communication with patients.

P223 shared, "We are often extremely short and unable to provide the standard of care required to assist a patient who may be detoxing in addition to their other medical needs. We can't assess them as frequently and provide interventions."

This sentiment was echoed by other nurses who highlighted that time constraints prevented them from addressing the needs of PWUS. P224 commented, "We don't have time to talk to the patients about their feelings and concerns regarding their drug [use]," and P87 stated that there "was not enough time to put maximum effort/spend enough time with each patient as days are extremely busy."

The respondents emphasized the importance of time and close monitoring in providing quality care to PWUS. However, they acknowledged that current staffing shortages and high workloads prevented them from offering the level of attention that PWUS required. P103 noted, "Sometimes these individuals need closer immediate attention that is not often afforded."

Theme 5: Absence of Organizational Policy

The nurses reported a lack of organizational policy and standardized care approaches for PWUS, which they viewed as a barrier to delivering consistent and high-quality care. Even though medical directives and care plans are available for other conditions such as nicotine or alcohol withdrawal, similar supports often are absent for PWUS.

P110 explained:

Lack of standardized care for clients who use drugs or experience withdrawal while hospitalized. For nicotine or alcohol withdrawal we have the nicotine replacement direct orders or alcohol withdrawal scale but lack similar supports for clients who use other substances [e.g., crack, heroin].

In addition to the absence of clinical protocols, the nurses noted a lack of clear organizational policy on ways to manage and remove illicit substances from patients. This lack of directive created ethical and relational challenges, described by P324 as "we are required to report and take away substances. This causes distress to the patient and ruins the trust between patient and nurse." Another nurse reiterated this concern, highlighting the damaging impact on the therapeutic relationship. Overall, this lack of guidance was seen to erode trust between nurses and PWUS, ultimately undermining the quality of care as well as the nurse-patient relationship.

Theme 6: Health Care Providers' Negative Attitudes and Stigma

The nurses identified negative attitudes among health care providers (i.e., their coworkers) as a significant barrier to delivering effective care to PWUS. These attitudes often influenced clinical decisions, leading to the undertreatment of pain and inadequate overall care.

P94 described how stigma from doctors and other providers frequently resulted in patients' pain being dismissed as drug-seeking behaviour:

Stigma from doctors and other providers. This stigma often leads to patients' pain being undertreated because care providers are assuming they are drug seeking. Rapid discharge without concern for social determinants of health or proper care for issues contributing to substance use results in patients being readmitted in a very short time. No consideration to what the patients' next steps are results in such repeated admissions.

P63 shared that peers criticized her for showing compassion:

Other nurses' attitudes is a barrier also because they will give me a hard time if they feel I am being "too nice" to patients and that it will cause problems for every nurse because the patient will expect all the nurses to be like that. I have been openly mocked, lectured, and demeaned for being "too nice" to patients using substances.

These collective attitudes have eroded trust between patients and health care providers, and the health care institution more broadly. The nurses recounted hearing from individuals who preferred to avoid hospital care entirely because of previous poor treatment, with P98 noting, "I have spoken with many street-involved individuals who have said, 'I would rather die than go to the hospital.' " Patients sometimes leave against medical advice because of mistreatment. This stigma causes providers to see substance use as the primary issue, often overlooking the actual health concerns.

P399 explained, "When health care providers see substance use first, and the individual's health issue second (or third, fourth, fifth, etc.), all the patient's symptoms are seen as attention and/or drug seeking."

Other respondents reinforced this perspective, highlighting the ongoing struggles to advocate for adequate care amidst prevailing stereotypes. P174 asserted, "Stigma around using substances leading to inadequate management of medical issues, having to constantly advocate

for appropriate care for patients when doctors refuse to see past the stigma and stereotypes," P180 noting that "they get written off and not properly cared for," and P244 indicating that "symptoms being brushed off as caused by drugs."

Themes Related to Recommendations for Improved Quality of Care

Theme 1: Resources

Community-Based Resources

The respondents felt that increasing access to current services such as detoxification beds would be beneficial to the care of PWUS. P165 mentioned frequently trying to access detox services for a patient, but the care space was unavailable, noting that "we need a larger detox center. So many times, we attempt to send patients to detox centres, and it is full." Other general comments about increasing community services were noted, but specific descriptions of which services would be most the beneficial or elaboration on these responses were not identified.

Hospital-Based Resources

When discussing hospital resources, the respondents strongly advocated for increased access to social work services, particularly during evenings and weekends. P135 recommended that the hospital "have a social work on call for evenings and weekends," and P86 emphasized the need to "increase the number of [social workers] who have experience with this patient population."

The importance of continuous support was echoed by P179, who suggested "more counselling, social work, and help 24 hrs a day to help the clients. Someone needs to be present on the med/surg floors at night to help.

In addition to the need for social work availability, the respondents stressed the importance of offering counselling specific to substance use rather than limiting care to physical

health concerns. P248 explained that "we do Band-Aid solutions and treat the physical: illness [i.e., antibiotics for endocarditis] but do nothing to address the drug use or help people overcome their addiction."

Another resource that the nurses recommended was the need for specialized addiction services within the hospital setting. The respondents emphasized that PWUS required tailored care, which current workloads and limited education prevented the nurses from providing.

P50 recommended "more education on addiction and more resources to be able to offer individuals who are looking for treatment. It would be beneficial to have staff specifically trained on working with addictions to treat patients who use substances." The absence of this training raised concerns about the ability to provide holistic care.

P230 explained:

I think this population warrants staff specially trained to care for them. It can't just stop at medical treatment for the acute state they may come in with and then send them home to deal with the initial problems/issues that brought them in in the first place.

The nurses suggested that specialized services could offer expertise in areas such as pain management, counselling, discharge planning, and community resource navigation. These services were recommended to be interdisciplinary in nature, involving social workers, Indigenous care coordinators, crisis workers, persons with lived experience, and specially trained nurses. The nurses also noted that such supports should be available all of the time, including evenings, nights, and weekends.

Theme 2: Education and Training

The respondents emphasized the importance of education and training as critical supports to deliver quality care to PWUS. They identified priority areas such as nonviolent crisis

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intervention; antistigma education; therapeutic communication; withdrawal management, including the use of scoring tools; and overdose response. A recurring theme was the need for improved awareness of local community-based resources because gaps in this knowledge were seen to limit nurses' ability to provide effective care. As P43 put it, "education on detox clinics." Although some nurses were aware of services such as detox facilities, others expressed uncertainty or reported limited access, underscoring a notable gap in system-level orientation.

Communication and relationship-building skills also were mentioned frequently. Many nurses expressed the need for guidance on ways to engage meaningfully with PWUS that would support their mental and physical health.

P223 emphasized the need for "additional education on how to even talk to these patients about their mental health concerns and not only the medical concerns." Nurses such as P43 stressed the importance of learning "how to effectively open the door for the discussion on healing," and other nurses such as P253 requested a "course on communicating with this population as at times very difficult to rationalize with them/communicate." Beyond formal education, the respondents expressed a desire for real-time support from onsite experts. The presence of a dedicated resource was seen as essential for navigating the unpredictable and often complex nature of substance use in the hospital setting.

P231 noted:

I think this population warrants staff specially trained to care for them. It can't just stop at medical treatment for the acute state they may come in with and then send them home to deal with the initial problems/issues that brought them in in the first place.

Calls for education were closely tied to concerns about stigma in the clinical environment. The respondents expressed that training had to go beyond surface-level gestures and confront deeply ingrained attitudes that undermined care.

P50 stated:

Increase staff and resources for individuals who use substances. Increase education for all staff on addictions and individuals who use substance. The attitude of staff needs to change towards individuals who use substances, especially those patients who are seen frequently in the hospital setting - often things are missed or tests are not ordered just because an individual is seen frequently and staff members approach these individuals with a lot of stigma and bias.

P95 added, "[We need] more actionable things towards reducing stigma than putting up signs that 'language matters' when the general attitude about drug users is they are 'junkies' or 'dangerous.'"

Theme 3: Increased Staffing

Increased staffing was emphasized as a recommendation from the nurses. Many of them called for more personnel to support the care of PWUS, with P90 stating the need for "more staff to help with this patient population," P223 commenting a "full staff complement," and P412 saying "support staff when needed on shift." In addition to general staffing increases, the respondents highlighted the importance of improved nurse-to-patient ratios to ensure safe and focused care. P32 noted the value of "when needed, 1:1 ratio so you can focus directly on the patient's needs," and P129 simply stated, "better staffing ratios." Mirroring the earlier call for enhanced social work support, several respondents also underscored the importance of having

interdisciplinary team members available around the clock to meet the complex needs of this patient population.

Theme 4: Hospital Policy

There was a clear call from the nurses for hospital policies to address substance use on hospital property, patient absences from care areas, and the management of challenging behaviours. The nurses expressed the need for formalized guidance to navigate the complex and often high-risk situations that they encountered when caring for PWUS. P11 emphasized the importance of visitor-related policies, stating, "enforce rules for visitors not bringing substances into the room." Others proposed structured agreements between patients and care teams, with P35 commenting on the need for "a contractual agreement to adhere to treatment, while also supporting them while in hospital and out for their addiction."

The nurses conveyed a desire for institutional policies that would clarify expectations, distribute decision-making authority, and protect their professional accountability. Several of the nurses expressed concern that without clear guidance and organizational backing, their licences and sense of professional legitimacy were at risk in complex clinical situations. There was an implicit call for shared accountability and structural support to reduce the moral and professional burden that they carried alone.

P49 recommended "creating policy that outlines what to do in the very frequent times where I feel my license is in jeopardy because of this patient population." The need for improved mechanisms to detect and respond to suspected substance use also was raised, with P56 recommending "better policy/avenues to access when suspected substance abuse."

In addition, the respondents identified a gap in procedural guidance for handling substances found in patient rooms, noting the lack of direction for safe and appropriate disposal.

P231 suggested "specific policies for the disposal of these substances if found in the rooms."

Finally, there were calls for stronger institutional responses to violence and safety risks through

formal policy that would, according to P346, "create policies, increase security/police, and push

for antiviolence."

Theme 5: Safety Measures

Recommendations surrounding safety measures called for increased security in the

hospital, with P32 stating, "have security rounding and checking in more." The nurses felt that

this would help to mitigate violent incidents, violent behaviours, and the selling of illicit

substances on hospital property. Figure 5.1 depicts the barriers that the nurses faced delivering

quality care to PWUS and their recommendations to improve the care that PWUS received.

Figure 5.1

Perceived Barriers and Organizational Recommendations
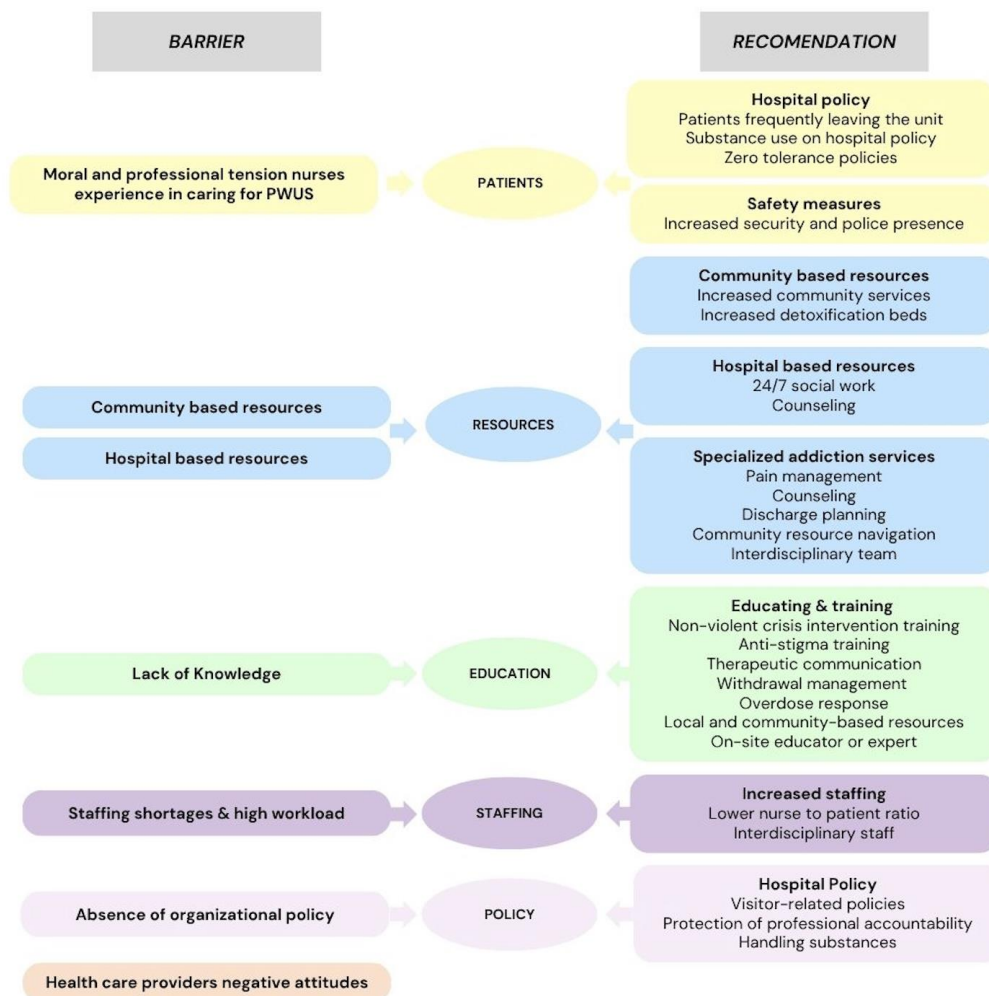
Discussion

This study aimed to explore the barriers that a sample of RNs and RPNs faced delivering quality care to PWUS and the supports that they recommended for improving care. Six themes relevant to barriers to the delivery of quality care to PWUS emerged: moral and professional tension, lack of resources, lack of knowledge, staffing shortages and heavy workloads, absence

of organizational policy, and health care providers' negative attitudes and stigma. The nurses linked these challenges directly to practical recommendations, allowing this discussion to pair each barrier with corresponding support.

Consistent with previous research, the respondents identified moral and professional tension in caring for PWUS. They described patients leaving and reentering the units in altered states, complicating care delivery by raising clinical uncertainty. These behaviours, especially if coupled with verbal and physical aggression, have been reported by researchers as creating a climate of fear and moral distress among nurses (Antill Keener et al., 2023; Hakala et al., 2020; Horner et al., 2019; Menard-Kocik & Caine, 2021). Perinatal units and other high-acuity areas, where staffing may be limited, has intensified these concerns (Shaw et al., 2016).

The respondents also reported hypervigilance around drug diversion, unauthorized visitors, and paraphernalia, all of which compounded their emotional exhaustion. Often, the nurses were caught between their duty to provide compassionate care and the need to maintain safety for both patients and themselves, a dilemma well documented in the literature (Munoz et al., 2021; Shaw et al., 2016). In these complex clinical situations, the nurses felt that their licences and professional legitimacy were at risk. There was an implicit call for shared accountability and structural support to reduce the moral and professional burden that they carried alone.

To address safety concerns, the nurses recommended protocols for managing PWUS, greater access to security, and improved staff-patient ratios. However, increased security must be implemented carefully because visible surveillance and searches can make PWUS feel criminalized, eroding trust and discouraging care engagement (McNeil et al., 2014). Safety

policies should be codeveloped with diverse stakeholders and grounded in harm reduction and trauma-informed care principles (Martin et al., 2023).

Lack of discharge planning as a resource also emerged as a significant barrier. The nurses described "Band-Aid solutions" that were the result of insufficient or unknown community-based services and inadequate hospital linkages. This barrier mirrored prior studies showing that medically stable discharges often overlooked patients' psychosocial and substance use needs (Mechling et al., 2023). Evidence has suggested that immediate access to follow-up services such as bridge clinics, in-patient detoxification or rehabilitation programs, and transitional care facilities such as skilled nursing facilities can significantly improve outcomes in this population (Bunting et al., 2025; French et al., 2022; Mechling et al., 2023; Moyo et al., 2024). Delayed or inaccessible community care contributes to poor outcomes and the decreased likelihood of PWUS engaging in postdischarge treatment (Bunting et al., 2025; Mechling et al., 2023; Moyo et al., 2024). This fragmentation of in-hospital care and broader health and social services highlighted a critical disconnection in the continuum of care for PWUS and nurses not being able to provide holistic, patient-centred care.

In Ontario, where 10% of the population uses substances problematically, access to mental health and addiction services remains limited (Canadian Mental Health Association, 2025). Rural areas are especially impacted; for example, in northwestern Ontario, only 24 withdrawal management beds are available (St. Joseph's Care Group, 2025) to a population of approximately 232,000 residents (Statistics Canada, 2023). Strengthening hospital-community partnerships and advocating for expanded services is critical. Although hospital administrators may view community-based services as outside their immediate scope, service gaps inevitably impact the hospital through preventable admissions, repeat visits, and care complexities.

Strengthening hospital-community partnerships is not ancillary but essential to ensuring sustainable, high-quality care. A population health approach that extends beyond the hospital walls is needed to address these disparities and align service capacity with community needs, ensuring equitable access to care for PWUS.

The nurses also noted the lack of awareness about extant resources that limited referral capabilities. Stronger hospital-community relationships could streamline referrals and ensure the continuity of care (Bunting et al., 2025). Once these partnerships are established, they can foster the continuity of care, reduce discharge gaps, and enhance access to essential supports for PWUS (Bunting et al., 2025).

Hospital-based social work coverage was another concern raised by the nurses. They highlighted limited access, especially outside business hours, and called for 24/7 social work services, a recommendation echoed in the literature emphasizing the key role of social workers in harm reduction and equitable care (Roberts et al., 2024). Social workers offer a holistic approach that complements nursing care and facilitates postdischarge support. This suggestion was supported by previous researchers, who emphasized the critical role of social workers in addressing the broader social needs of hospitalized PWUS (Gehring et al., 2022; Richert et al., 2023; Roberts et al., 2024).

Social work practice, which is grounded in the principles of social justice, harm reduction, and respect for individual autonomy, aligns closely with the needs of this patient population (Roberts et al., 2024). Unlike the biomedical model, which focuses primarily on physical illness, social work adopts a holistic approach, centering on patients' strengths, addressing systemic inequities, and enhancing access to community supports and care networks (Gehring et al., 2022; Richert et al., 2023; Roberts et al., 2024). As previously discussed, PWUS

can benefit from strong community linkages postdischarge, and facilitating these connections is a core function of social work (Roberts et al., 2024). Given their contributions to patient-centred and integrated care, hospitals should prioritize making social work services available around the clock. Limited availability, particularly during evenings, weekends, and holidays, may significantly impact access, especially in emergency departments, where PWUS often present outside of regular working hours. Expanding social work coverage would help to ensure equitable, continuous, and comprehensive care for this vulnerable patient population.

A lack of knowledge among the nurses about caring for PWUS also emerged, particularly around pain management, medication interactions, communication, and counselling. The nurses called for enhanced education, reflecting literature identifying training gaps (Chozom et al., 2021; Kratovil et al., 2023). Many nurses expressed uncertainty surrounding medication management, particularly when administering drugs that could interact adversely with substances that patients have used. Costello & Thompson (2015) reported that nurses often lacked the training necessary to manage medications safely and effectively in this context. Their study also supported the need for targeted education to help nurses better address the pain and other medical needs of PWUS. Researchers have identified inadequate pain management as a factor contributing to patients' poor satisfaction with care and leaving the hospital before treatment is complete, thus emphasizing the importance of nursing competency in this area (McNeil et al., 2014; Monks et al., 2013; Sharma et al., 2017; Strike et al., 2020).

The nurses also identified motivational interviewing as a desired skill, supported in the literature as an effective approach for this population (Mechling et al., 2023). However, even though basic communication techniques are valuable, advanced counselling should remain the domain of trained professionals to avoid role confusion and protect care clarity (Bunting et al.,

2024). Institutions should support nurses with targeted, ongoing professional development rather than expecting them to assume roles beyond their training.

To bridge several of these gaps, the nurses called for specialized addictions services, a model increasingly adopted across North America. In the absence of such care teams, the respondents questioned the equity of care that PWUS receive, particularly when compared to the specialized resources available for other health conditions. For instance, St. Paul's Hospital in Vancouver developed an addictions medicine consultation service in 2014 that offers around-the-clock support for PWUS (Braithwaite et al., 2021). This interdisciplinary team of physicians, social workers, counsellors, and specially trained nurses performs assessments, makes care and referral recommendations, and addresses patients' holistic needs (Braithwaite et al., 2021). The team also delivers staff education and support, helping to address one of the key barriers identified in our study, namely, nurses' lack of knowledge (Braithwaite et al., 2021). Programs like this have been received well by both nurses and patients because they support the delivery of quality care for this patient population (Beckett et al., 2022; Braithwaite et al., 2021).

Researchers have strongly supported the use of specialized addictions services to deliver holistic, evidence-based care to this patient population (Beckett et al., 2022; Braithwaite et al., 2021; Englander et al., 2024; French et al., 2022; Hoover et al., 2022; Hyshka et al., 2019). These teams have been shown to reduce the rates of patients leaving before treatment completion, improve adherence to medical treatment, enhance the patient experience, shorten hospital stays, and lower readmission rates (Beckett et al., 2022; Braithwaite et al., 2021; Englander et al., 2024; French et al., 2022; Hoover et al., 2022; Hyshka et al., 2019). Importantly, these teams have the potential to address several key barriers identified in our study: nurses' lack of knowledge, moral and professional tension while caring for PWUS, limited

awareness of community resources, and the need for interdisciplinary collaboration and supportive hospital policies (Beckett et al., 2022; Braithwaite et al., 2021; Englander et al., 2024; Hoover et al., 2022; Hyshka et al., 2019). These teams also improve postdischarge linkages to community care and model harm reduction principles, contributing to safer and more supportive hospital environments (Hyshka et al., 2019). Their institutional presence can guide policy development and normalize harm reduction strategies such as supervised consumption sites, open conversations about substance use, and nonpunitive approaches that directly address many of the challenges highlighted in our findings.

Staffing shortages and high workloads exacerbated some of the barriers that the nurses experienced providing quality care. The nurses shared a desire to build therapeutic relationships, but they felt unable to because of time constraints. Although the literature on PWUS-specific staffing remains sparse, broader research has affirmed that insufficient staffing levels can increase errors and undermine care (Driscoll et al., 2018). Institutions must ensure adequate nurse-patient ratios to meet the complex needs of this patient population, especially in the wake of pandemic-related strain (Maghsoud et al., 2022). The respondents also emphasized interdisciplinary collaboration as a partial solution to staffing challenges. Teams that would include peers with lived experience, addictions specialists, pharmacists, and mental health professionals would be able to distribute their workloads and improve patient outcomes (French et al., 2022). These expanded teams would support more holistic and relational care while alleviating the pressure on nurses.

The respondents also highlighted the absence of hospital policies to guide communication, clarify accountabilities, ensure nurse safety in ambiguous situations, and coordinate with security when caring for PWUS. Although some nurses sought clarity around

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substance use and the handling of illicit drugs, they also cautioned against abstinence-based policies, asserting that such frameworks would fail to align with many patients' goals and drive substance use underground, increasing risk (Allen et al., 2020; McNeil et al., 2014). Harm reduction policies should be more aligned with patient-centred care and reduce moral conflict for nurses. Examples include supervised consumption areas and the distribution of sterile supplies (Fraimow-Wong, 2024). For these policies to succeed, they must be embraced institutionally and paired with staff education.

Finally, the nurses noted that negative attitudes and stigma toward PWUS persisted among health care providers, and they struggled to identify strategies to address this dilemma. Unlike other themes that were identified, the respondents did not articulate specific strategies to mitigate this issue. However, there was a clear call for actionable interventions aimed at improving provider attitudes. This finding is consistent with the broader literature indicating that nurses often continue to hold negative attitudes toward PWUS in the hospital setting (Antill Keener et al., 2023; Babiarczyk et al., 2024; Hyde et al., 2024; Mahmoud et al., 2021, 2023; Renbarger et al., 2021). Education has been shown to be an effective strategy in shifting the attitudes of nursing students (Mahmoud et al., 2018; Manzotti et al., 2023; Mitchell et al., 2017). Initiatives incorporating lived experience and techniques such as screening, brief intervention, and referral to treatment (Mahmoud et al., 2018; Manzotti et al., 2023; Mitchell et al., 2017) have demonstrated effect.

Taken together, these findings underscore the multifaceted barriers that the nurses in our study encountered when caring for PWUS and highlight the importance of comprehensive, interdisciplinary, and patient-centred strategies to address these challenges. Strengthening

institutional support and expanding access to specialized addiction services are essential steps

toward improving the quality of care and advancing health equity for this patient population.

Limitations

This study had several limitations. First, although it was conducted at a single site, the

findings may still be transferable to other acute care settings with similar patient populations and

organizational challenges, particularly where nurses routinely care for PWUS. In fact, the

distinct context may have amplified the emotional and professional strain that the nurses

reported, providing insight into environments with high-intensity substance use care. Second,

although the use of free-text survey responses may have limited the depth typically captured in

interviews or focus groups, it allowed for broad participation and spontaneous reflections across

a large sample, enhancing the diversity of perspectives. Finally, although social desirability bias

may have influenced the honesty of the responses, it also is possible that this effect tempered the

findings, suggesting that the actual levels of discomfort or moral tension may have been even

greater than reported. With approximately 20% of eligible nurses responding to the survey, the

findings should be interpreted with caution because the perspectives captured may not have

represented the broader nursing staff fully.

Conclusion

The findings of this study highlight the need for organizational support to help nurses to

overcome the complex challenges of caring for PWUS. Without such support, nurses and

patients will continue to face adverse outcomes. Advancing health equity requires a strong

institutional commitment to empower nurses, whose frontline expertise is vital in reducing

disparities and improving the delivery of care to vulnerable populations such as PWUS.

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CHAPTER 6: INTEGRATED DISCUSSION

In this chapter, I reflected on the key insights gained from the four manuscripts that comprised this dissertation. I also discuss the broader learnings developed throughout my doctoral journey, particularly in relation to the health care system and its delivery of care to patients who use substances (PWUS) in the hospital setting. Presented in this chapter are a summary of the main findings of each study and an exploration of their implications for nurses, patients, health care organizations, and policymakers. Throughout Chapter 6, I highlight opportunities for future research and system-level change that I illustrate in Table 6.1 and visually represent in Figure 6.1 at the end of the chapter.

This dissertation had two objectives. The first objective was to examine how to assess nurses' attitudes toward PWUS in the hospital setting. The second objective was to describe nurses' attitudes toward PWUS, factors related to these attitudes, and perceived barriers to providing high-level care to this patient population to facilitate organizational change.

Summary of the Findings

Understanding How to Assess Nurses' Attitudes Toward PWUS

Chapter 3 (Manuscript 2) examined whether person-centred (PC) language modifications to the AAPPQ and DDPPQ affected their reliability, internal consistency, and factor structures among practising RNs and RPNs. The revisions altered the underlying factor structures, and neither the original nor the modified versions demonstrated optimal model fit. Exploratory analyses yielded shortened alternative models, suggesting that further refinement is needed to ensure that both versions remain psychometrically sound and conceptually aligned with current discourse on PC language.

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Nurses' Attitudes Toward PWUS, Factors Related to These Attitudes, and Perceived Barriers To Providing High-Level Care To This Patient Population to Facilitate Organizational Change

Chapters 2, 4, and 5 addressed the second objective of this dissertation. Chapter 2 (Manuscript 1), a scoping review, established that nurses often hold negative attitudes toward PWUS in the hospital setting driven by limited education, challenges with pain management, and inadequate organizational support, all of which highlighted the need for system-level interventions. Chapter 4 (Manuscript 3) built on the revised factor structures from Chapter 3 and identified several variables associated with nurses' attitudes. Although associations with contextual factors such as workload and burnout were inconsistent, education or training in substance use was consistently associated with more positive attitudes. Nurses in the mental health care setting also reported more favourable views, potentially reflecting self-selection. These findings emphasize the importance of targeted professional development. Chapter 5 (Manuscript 4) explored barriers to care, identifying six key themes relevant to challenges and five themes reflecting recommendations. The nurses emphasized the need for education, staffing, resources, and policy reform, with strong support for implementing addiction medicine teams as a strategy to address multiple care gaps. Together, these studies illustrated that even though nurses play a crucial role in caring for PWUS, they do not feel adequately equipped or supported to do so.

Discussion and Implications

This study focused on nurses' perspectives, so the voices of PWUS were not captured directly in the data. However, the organizational challenges and moral distress reported by the

nurses aligned closely with patient-reported experiences in the literature, offering theoretical

validation of these concerns.

PWUS Validating Nurses' Perspectives

In the research, PWUS often have reported being viewed as "bad," "demanding," or

"noncompliant," and they have described being labeled with stigmatizing terms such as

"frequent flyers," "drinkers," and "junkies" (Carusone et al., 2019; Goetz et al., 2022). They

have recounted unprofessional and discriminatory interactions with nurses, including the use of

stigmatizing language (Grewal et al., 2016; Pauly et al., 2015; Sharma et al., 2017; Solheim et

al., 2024); being ignored when expressing concerns (Lago et al., 2017; Solheim et al., 2024); and

being denied care or appropriate pain management (Sharma et al., 2017; Strike et al., 2020).

Among the most distressing experiences reported by PWUS in earlier studies has been

the inadequate or denied administration of pain medication. Patients have described not being

believed, having their pain underestimated, and being undermedicated as the result of

assumptions of drug-seeking behaviours (Horner et al., 2019; Strike et al., 2020). These

experiences have contributed to the avoidance of medical care and poorer health outcomes

(Carusone et al., 2019; McNeil et al., 2014; Strike et al., 2020). Researchers have found that

many patients ultimately leave the hospital before completing treatment, commonly referred to

as leaving against medical advice, and resulting in missed opportunities for care (McNeil et al.,

2014; Monks et al., 2013; Strike et al., 2020). Leaving against medical advice can be associated

with lower follow-up rates, increased likelihood of future premature discharges, higher

readmission rates within 2 weeks, and a twofold increase in mortality rates (Allen et al., 2020;

Hyshka et al., 2019). These outcomes also carry significant financial costs. A national study by

Tan et al. (2020) found that hospital readmissions following against medical advice discharges

accounted for more than 400,000 in-patient days and an estimated $822 million in health care expenditures.

PWUS also have reported feeling criminalized during hospitalization. Accounts have included excessive surveillance (Pauly et al., 2015; Strike et al., 2020); personal and room searches with confiscation of belongings (Pauly et al., 2015; Strike et al., 2020); being blamed for unrelated incidents on the unit (Pauly, 2015); and threats of forced discharge before treatment completion (Goodman et al., 2017; McNeil et al., 2014; Strike et al., 2020). These experiences often have led patients to compare hospital stays to incarceration, citing the presence of security and constant monitoring as key sources of distress (McNeil et al., 2014).

Though captured separately (i.e., nurses' attitudes and patients' viewpoints) in previous research, both perspectives have pointed to the same systemic failures compromising the quality and safety of care for this marginalized patient population. Addressing these deeply rooted issues will require more than individual goodwill; rather, it will demand supporting nurses to feel more comfortable in caring for this patient population and the integration of targeted education as a critical starting point in reshaping nurses' attitudes and improving the care of PWUS.

Translating Education Into Practice

As demonstrated throughout this dissertation, the education and training that nurses do or do not receive on substance use and/or addiction plays a critical role in shaping their attitudes toward PWUS. Across multiple chapters, the nurses consistently acknowledged gaps in their knowledge and strongly advocated for enhanced professional development to address these deficits. Notably, exposure to education on substance use was associated with more positive attitudes, suggesting that targeted training can foster greater empathy and clinical confidence.

These knowledge gaps were not limited to clinical care alone. The nurses expressed uncertainty about ways to communicate effectively with PWUS and their families, how to respond when in-hospital substance use was suspected, how to protect themselves in situations involving aggression and/or violence, and how to navigate professional accountability in ethically ambiguous scenarios. This uncertainty underscored the complex, multidimensional nature of care required for this patient population.

Knowledge appeared to be closely tied to confidence: Nurses with more education felt better equipped to provide safe, evidence-based, and nonjudgemental care. Although these findings offer promising insight into the role of education in shifting attitudes, it is important to recognize that attitude change is only one part of the solution. Whether such shifts ultimately lead to improved patient experiences and outcomes remains an open question that warrants further research.

Studies examining the impact of nursing education on patient-related outcomes have produced mixed results. A direct causal relationship has not been firmly established, but researchers have pointed to positive effects. For example, Boltz et al. (2013) found that increased nurse certification was associated with a reduction in the number of patient falls, and Hickey et al. (2013) reported lower pediatric mortality rates among patients cared for by certified nurses. However, Boltz et al. observed inconsistencies in other nurse-sensitive outcomes, such as the prevalence of pressure ulcers and the use of restraints.

In contrast to shorter term professional development initiatives, more robust evidence has supported the benefits of university-level nursing education (e.g., registered nurses [RNs] versus diploma-prepared nurses), with researchers reporting associations between baccalaureate-prepared nurses and reduced mortality rates and complications (Aiken et al., 2003; Blegen et al.,

2013; Kutney-Lee et al., 2013). Despite some variability, the potential for education to influence

patient outcomes positively should not be overlooked. Although the research specifically

focusing on education interventions for nurses caring for PWUS has been limited, the available

evidence has suggested that such initiatives may improve outcomes for this patient population.

These findings offer a foundation for further exploration of the ways that targeted education can

produce measurable benefits for PWUS.

Nurses' levels of education have correlated with their attitudes toward PWUS. In general,

more positive attitudes have supported altruistic and compassionate care, which enhances patient

and nurse satisfaction (Rekisso et al., 2022). However, the relationship among education,

attitudes, and patient outcomes is likely complex and not necessarily linear. For instance,

education may influence attitudes indirectly by increasing nurses' confidence caring for PWUS,

confidence that may mediate the relationship between education and care quality, particularly in

high-stress or ethically ambiguous situations. This confidence may be especially critical for this

patient population, where negative attitudes and stigma, safety concerns, and uncertainty are

more pronounced. Given the established link between nursing care quality and patient outcomes,

these findings underscore the importance of educational efforts aimed at improving attitudes

(Tsogbadrakh et al., 2020).

However, education is not a singular intervention; rather, it comprises multiple

components including communication skills, clinical knowledge, and harm reduction strategies

that may have differential effects. For example, improving communication with PWUS may not

directly alter clinical outcomes, but it could meaningfully improve patient experiences and trust

in the health care system. Ultimately, such interventions may enhance the quality of care of and

the health outcomes for PWUS. However, given the limited literature, future researchers must

explore whether these education-focused strategies improve care experiences from the perspectives of PWUS themselves.

Driving Change Through Leadership

If health care organizations are serious about improving the delivery of care to PWUS, education alone is not enough: It must be paired with strong, equity-driven leadership to transform current care delivery systems. Leaders cannot merely endorse training: They also must model its principles and embed them into everyday practice to drive meaningful change. Nurse leaders are uniquely positioned to lead this transformation. As evidence-informed professionals committed to mentorship, innovation, and quality improvement, they influence far more than clinical outcomes (Cline et al., 2022). Their leadership shapes team performance, organizational culture, and broader community attitudes (Cline et al., 2022). This influence is evident in the ways that staff engage with leadership that align with organizational goals and priorities (Välimäki et al., 2024). When supported by strong leadership, frontline nurses are better equipped to provide high-quality care and safeguard patient safety (Alsadaan et al., 2023).

Implementing real and lasting change requires more than clinical expertise. It also demands the integration of research evidence, frontline experience, and stakeholder values to address the complex and systemic challenges in health care (Haghgoshayie & Hasanpoor, 2021; Sevy Majers & Warshawsky, 2020), including challenges that extend outside the hospital walls. In this context of designing and delivering care to PWUS, nurse leaders must act as health equity advocates, collaborating with institutional leaders and policymakers to confront structural inequities and address the social determinants of health (National Academy of Medicine, 2021). Practically, this includes building strong partnerships with community-based support services

such as detox facilities and community harm reduction programs to ensure integrated, coordinated care that extends beyond discharge and promotes continuity for PWUS.

Given their influence, nurse leaders must be at the forefront of challenging negative attitudes toward PWUS by fostering psychologically safe environments so that nursing staff feel supported to reflect, learn, and grow. Psychological safety is essential for shifting narratives because when nurses feel safe, they are more open to participating in difficult conversations (Cho et al., 2023; Lee & Seo, 2024), including those around stigma and harm reduction. In a study of 730 medical-surgical nurses, Lee and Seo (2024) found that inclusive leadership promoted innovative work behaviour through psychological safety. Similarly, Cho et al. (2023) surveyed 867 U.S. hospital nurses and found that psychological safety was linked to greater job satisfaction, lower intent to leave, and improved patient safety, with open communication mediating these effects. Together, these findings highlight the need for nurse leaders to model inclusive, trust-building behaviours that facilitate open dialogue and drive meaningful change in caring for PWUS. Furthermore, nurse leaders who model nonstigmatizing PC language and advocate for policies that balance compassion with safety establish the foundation for lasting culture change.

The impact of nurse leadership is already evident in emerging harm reduction initiatives, where their involvement often has been identified as a key factor in success (Fraimow-Wong et al., 2024; Hyde et al., 2023). However, leadership must extend beyond the nursing profession. Senior leaders, administrators, and policymakers also need to demonstrate visible and ongoing commitment to harm reduction principles. A top-down approach where executive-level priorities explicitly support harm reduction practices, such as nonjudgemental care, safe supply, and perhaps supervised consumption, is essential for fostering organizational change in the context of

nursing care for PWUS. When senior leadership actively support these efforts, it amplifies the work of nurse leaders, promotes staff support, and enhances organizational readiness (Forchuk et al., 2023).

Change can be difficult to implement. An integrative review by Cheraghi et al. (2023) found that nurses' resistance to change stemmed from a range of factors, including individual traits (e.g., attitude, personality, pessimism); interpersonal barriers (e.g., communication challenges); and organizational conditions (e.g., leadership style, organizational values). This resistance can undermine organizational effectiveness and commitment, and in the absence of strong leadership, resistance to change tends to intensify over time. Therefore, leadership is not a supplementary element but a critical driver in creating the conditions for sustainable and meaningful change in how nurses deliver care with PWUS.

The Broader Political Landscape

Even with committed leadership, organizations operate within broader political and social constraints. Public perceptions of substance use (Bosworth et al., 2024); funding structures (Crowther et al., 2023; Nolan et al., 2022); and community readiness (Omale et al., 2025) all shape what hospitals can implement realistically. Although these external forces present tangible barriers, they must not be viewed as immovable. Change is both possible and already underway, as evident in progressive harm reduction efforts emerging in hospitals across Canada (Hyde et al., 2023; Nolan et al., 2022) and internationally (Crowther et al., 2023; Lindenfeld et al., 2023).

To move this change forward, societal and health care providers' widespread misconceptions about harm reduction must be dismantled. Harm reduction is not a permissive or reckless approach; rather, it is a pragmatic, evidence-based framework that supports patients where they are while also prioritizing accountability, safety, and dignity for patients and staff

(Canadian Mental Health Association, 2025; Erickson, 1995; Thakarar et al., 2020). When implemented effectively, harm reduction includes clear policies, shared responsibility, and support for clinical decision making (Substance Abuse and Mental Health Services Administration, 2023). Harm reduction replaces punitive responses with collaborative care models that protect the safety of health care environments (Allen et al., 2020; Lennox et al., 2021; Substance Abuse and Mental Health Services Administration, 2023).

Nurses are essential to these efforts. As demonstrated across the studies in this dissertation, nurses' attitudes toward PWUS are shaped by systemic gaps in education, clinical resources, and organizational policy. Misconceptions around harm reduction, including the myth that it condones substance use (Logan & Marlatt, 2010; Vearrier, 2019), can be especially damaging when held by frontline staff. This myth underscores the need for targeted professional development that demystifies harm reduction, equips nurses to respond confidently to substance use in the health care setting, and supports their moral and professional well-being.

This myth also mirrors outdated fears about the use of seatbelts encouraging reckless driving in the 1960s, concerns that have since been disproven (World Health Organization, 2004). Seatbelts are now accepted universally for their life-saving impact (World Health Organization, 2004). Similarly, providing sterile supplies does not increase substance use; instead, it reduces the spread of infectious diseases (Thakarar et al., 2020) and strengthens patient engagement with care (Fraimow-Wong et al., 2024; Hyde et al., 2023).

Despite growing evidence of the effectiveness of harm reduction strategies, significant legal and structural barriers remain, particularly in the hospital setting. Unlike community-based programs, hospital-led harm reduction initiatives that involve controlled substances require federal exemptions under the Controlled Drugs and Substances Act (Government of Canada,

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2025b, 2025c, 2025d). These exemptions, issued by the federal minister of health, authorize specific harm reduction practices in the hospital setting (Government of Canada, 2025a, 2025c). To receive approval, hospitals must demonstrate public health need, outline robust safety protocols, and provide evidence of meaningful community consultation (Government of Canada, 2025b, 2025c, 2025d). Without this exemption, such services remain legally untenable.

In contrast, less complex interventions such as providing naloxone kits (Canadian Research Initiative on Substance Misuse, 2019) or installing sharps containers in patients' rooms (Forchuk et al., 2023) are easier to implement and fall under provincial jurisdiction. However, the absence of a unified national approach has led to inconsistent harm reduction uptake across Canada. Provinces like Alberta and British Columbia have introduced system-wide policies (Alberta Health Services, 2025; Provincial Health Services Authority, 2023), whereas others like Manitoba have relied on regional leadership (Manitoba Health, Seniors, and Long-Term Care, 2024). British Columbia has gone a step further by piloting a federally sanctioned decriminalization initiative, creating more space for hospital-based harm reduction (Government of British Columbia, 2025).

However, the integration of harm reduction in the hospital setting remains limited, hampered by systemic stigma, limited provider education, and organizational resistance (Forchuk et al., 2023; Hyde et al., 2023). Across all four studies in this dissertation, nurses identified key barriers to delivering quality care for PWUS: moral tension, lack of education, poor resourcing, and the absence of clear policy. Yet they also offered concrete solutions, calling for strengthened education, supportive policies, interdisciplinary collaboration, and embedded addiction medicine teams.

Promising models offer a blueprint for progress. In response to a 125% increase in infective endocarditis cases, St. Boniface Hospital in Manitoba launched a harm reduction supply distribution program in collaboration with a regional community partner (Hyde et al., 2023). Piloted on a cardiac surgery unit, the initiative was supported by hospital-wide education, visible leadership, and daily addiction medicine consultations. Over 1 year, the hospital distributed 11 supply kits and observed an increase in average length of stay from 36 to 44 days, suggesting improved patient trust and engagement (Hyde et al., 2023). However, hospitals are held accountable to performance metrics, including length of stay, thus suggesting that increased lengths of stay being positive would challenge the current landscape of how many hospital administrators think and act.

At St. Paul's Hospital in Vancouver, an on-site overdose prevention service featured four injection booths staffed by peer support workers (Nolan et al., 2022). The site offered not only a safe space for substance use but also drug testing, harm reduction supplies, and immediate access to treatment services. In its first year, the program saw 11,673 visits, an average of 26 per day, with zero fatal overdoses (Nolan et al., 2022).

These examples illustrate what is possible when harm reduction is adopted not as an exception but as a core component of compassionate, evidence-based care. Crucially, nurses were integral to these successes, often serving as the initial point of engagement, facilitating harm reduction practices, and working collaboratively with interdisciplinary teams. Their support was grounded in education, leadership backing, and the presence of addiction medicine resources, all factors that this dissertation identified as essential to fostering more positive nurse attitudes and reducing moral distress.

These shifts in care can transform the hospital culture and the ways that PWUS can participate in their own care. In an urban southern California hospital, staff attitudes began to shift after the introduction of a harm reduction program that included safer use supplies and patient education (Fraimow-Wong, 2024). With strong leadership and targeted nursing education, supply distribution became normalized, and staff reported a more supportive environment for PWUS. Importantly, harm reduction improved not only staff perspectives but also patient outcomes. Patients reported feeling less stigmatized and more comfortable discussing their substance use goals when hospitals adopted harm reduction-based approaches (Fraimow-Wong, 2024; Perera et al., 2022).

To ensure that these efforts are sustainable, holistic, and grounded in real needs, hospitals must partner with established community-based services such as syringe service programs (Fraimow-Wong, 2024; Hyde et al., 2023). These collaborations offer expertise built on lived experiences and help to align hospital practices with community realities (Forchuk et al., 2023). Crucially, these efforts must be codeveloped with PWUS (Allen et al., 2020; Martin et al., 2023; Naren et al., 2023). Including PWUS in program and policy development ensures that such initiatives reflect lived realities, foster trust, and promote equity by centring voices that have too often been excluded from institutional decision making (Ti et al., 2012).

Looking ahead, scaling harm reduction nationally will require more than isolated success stories. Hospitals and provinces must leverage extant partnerships and expertise. Formal mechanisms to support interprovincial collaboration, such as a national forum for harm reduction in health care, could accelerate learning and innovation. As more jurisdictions demonstrate success, the momentum for broader uptake will speed up. To sustain this progress, ongoing research must evaluate harm reduction efforts rigorously, ensuring that future strategies are

driven by data rather than stigma (see Figure 6.1 and Table 6.1). For nurses, this means

continued investment in education, supportive infrastructure, and policy reform that empowers

them to provide compassionate and effective care for PWUS.

Figure 6.1

From Insight to Impact: Priorities for Change

Table 6.1

Summary of the Main Findings and Disciplinary Implications

Chapter and manuscript no.	Main findings	Disciplinary implications
Chapter 2, Manuscript 1	Nurses demonstrate negative attitudes toward PWUS in the hospital setting	*Nursing Practice:* Negative attitudes are a clinical safety issue; they influence clinical outcomes. This positions negative attitude reduction as a core competency of focus for hospitals.
		Education: Integration of substance use care and/or addiction management should be mandatory education provided by the hospital and collaboration should occur with associated academic partners.
	Nurses have gaps in knowledge around substance use and substance use care, concerns with managing pain in this patient population and feel unsupported by their organizations	*Leadership:* Nurse leaders must take an explicit stance against negative attitudes, not only at the bedside, but at the organizational table. Nurse leaders are uniquely positioned to validate staff concerns while modeling empathy and accountability.
		Nurses feeling unsupported reflects a system-level failure. Leadership must foster environments where difficult conversations about care for PWUS can happen without judgement or fear.
		Policy: Hospitals need to become active agents in implementing health equity policies (e.g., harm reduction).
	Organizational and society shifts are needed to make change	*Research:* Future research should focus on developing and testing interventions aimed at reducing negative attitudes. Additionally, given that organizational shifts take time, future research should also explore how nurses' attitudes evolve posteducation or postintervention and how patient populations influence the ways that care is delivered.
Chapter 3, Manuscript 2	The most common tool utilized in the literature to examine attitudes toward alcohol and drug use may need revisions as they might not measure what was once intended	*Nursing Practice:* Relying on outdated assessment tools can unintentionally reinforce negative attitudes by perpetuating the outdated assumptions embedded within them. To support PC care, tools must reflect current best practices and values an alignment that is strengthened when organizations and leaders consistently model inclusive PC language.
	Changing the language of these tools to PC does affect the tools' psychometric properties	*Education:* Revisions to tools reflect broader shifts in how language can perpetuate or dismantle negative attitudes. Continuing education can help nurses understand how language in assessment tools affects not just research but day-to-day interactions with patients.

Chapter and manuscript no.	Main findings	Disciplinary implications
Chapter 4, Manuscript 3	Organizations should provide nursing staff with professional development opportunities around substance use to shift nurses' attitudes.	*Research:* Language can affect psychometric properties. There is a need for new theoretical and statistical frameworks that support PC, inclusive language while maintaining robust psychometric validity. Future studies can longitudinally explore how updated tools perform over time and in diverse populations. *Nursing practice:* Treating professional development in substance use care as optional minimizes its clinical importance. Organizations must embed it into regular practice expectations as part of safe, ethical care. A shift in nurse attitudes posttraining could lead to measurable improvements in patient-provider interactions. This could reduce avoidance behaviours and increase treatment adherence among PWUS. *Education:* Generic or one-off trainings are unlikely to shift deep-rooted beliefs. Programs should use evidence-informed strategies and lived experience facilitation to achieve transformative change. Training should be tailored to the realities nurses face (e.g., managing aggression, withdrawal, or pain in PWUS) so the material feels relevant and usable. Professional development sessions should include a follow-up component that captures how patients experience care after staff training, making patients essential evaluators of whether change is occurring in practice. Leadership: Nurse leaders must recognize that attitude change is not just cognitive: It's emotional, moral, and relational. They should provide safe environments for staff to confront negative attitudes, ask questions, and discuss challenges openly. *Policy:* Accreditation bodies and health authorities should require hospitals to provide structured, recurring substance use education as part of their quality and safety frameworks. Policy should incentivize or mandate that training programs include mechanisms to evaluate patient experiences posteducation, closing the loop between education and care outcomes.
Chapter 5, Manuscript 4	More research is needed to explore if workload and burnout are correlated with nurses' negative attitudes Nurses face systemic barriers in delivering quality care to PWUS. Key challenges include moral	*Research:* More research is needed on contextual factors that shape attitudes. If workload and burnout influence negative attitudes, then practice environments that fail to address nurse well-being may unintentionally reinforce negative attitudes. This can inform more targeted interventions. *Nursing practice:* Without adequate support, nurses are forced to rely on personal judgement when caring for PWUS, often resulting in reactive, risk-focused care. Embedding addiction expertise, improving

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Chapter and manuscript no.	Main findings	Disciplinary implications
	tensions, knowledge gaps, inadequate resources, staffing shortages, and the absence of supportive policies or addiction-specific services. Organizational supports are essential for enabling compassionate, evidence-informed care. Nurses clearly identified the need for embedded education, specialized addiction teams, and institutional policies that reflect harm reduction and prioritize both safety and dignity. Empowering nurses through structural change can improve outcomes for both staff and patients.	access to social work, and ensuring manageable workloads are essential to enable safe, compassionate, and equitable nursing practice. *Education:* Training must move beyond basic awareness and address the specific, high-stakes situations nurses encounter, like managing pain, withdrawal, or aggression. Training needs to encompass all elements such as clinical guidelines, communication strategies, organizational policies, and risk mitigation. Education should be frequent, relevant, and developed with input from both addiction experts and those with lived experience to shift practice and mind-set. *Leadership:* Nurse leaders must actively model nonjudgmental, trauma-informed care and advocate for system changes that support frontline staff. Creating psychologically safe environments where nurses can reflect on negative attitudes, share challenges, and access support is critical for sustaining attitude change. *Policy:* Hospitals need clear, nonpunitive policies to guide care for PWUS, particularly around substance use (e.g., finding substances, disposing), safety concerns, and discharge planning. Policies should reflect harm reduction principles and be codesigned with frontline staff and people with lived experience to ensure they are both practical and person centred. *Research:* More research is needed to examine how organizational supports like addiction care teams or 24/7 social work impact nurses' attitudes, patient experiences, and care outcomes. Future studies should also explore how the presence or absence of these supports influences burnout, moral distress, and nurse retention.

Conclusion

The findings underscore the urgency and opportunity to rethink how health care organizations support nurses as they provide care for PWUS. If educational efforts are grounded in patients' experiences, championed by courageous leadership, and supported through policies and funding, health care organizations can begin to rebuild trust and equity in the hospital setting for patients and nursing staff. These changes will not happen overnight, but by continuing these conversations and rooting them in evidence as well as compassion, health care organizations can lay the foundation for care that is safer, more effective, and more humane for patients and providers alike.

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APPENDIX A: BIBLIOGRAPHY

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APPENDIX B: DISSERTATION PROPOSAL, RESEARCH ETHICS BOARD APPROVAL, INFORMATION LETTER, AND RECRUITMENT MATERIALS

Examining Nurses' Attitudes Toward Patients Who Use Substances in the Hospital Setting:

A Dissertation Proposal

Andrea Raynak

0306006

Department of Health Science, Lakehead University

HESC: 6060 Dissertation Proposal

Dissertation Committee: Dr. Chris Mushquash, Dr. Michel Bédard, and Dr. Brianne Wood

July 22, 2024

I declare that the assignment submitted represents the final version; is my own original work; excepting where I have cited my own pervious work, has not been submitted (in its entirety or any portion thereof) to meet the requirements of any other course; and adheres to University Regulations related to Academic Misconduct, and is free of plagiarism (intended or otherwise).

Student signature: *Andrea Raynak*

Date: July 3, 2024

Table of Contents

Chapter 1

Introduction

Nurses are the mainstay of the Canadian health care system, and they are the largest body of health care professionals worldwide, accounting for 59% of the workforce (American Association of Colleges of Nursing, 2022; World Health Organization, 2022). Nurses are facing exceptional challenges in their daily practice that were and continue to be severely exacerbated by the COVID-19 pandemic; poor working conditions (Tamata et al., 2021); high and complex patient workloads (Banda et al., 2022; Tomblin Murphy et al., 2022); staffing shortages (Tamata et al., 2021; Tomblin Murphy et al., 2022); burnout (Registered Nurses Association of Ontario [RNAO], 2021); and poor mental health and well-being (Al Maqbali et al., 2021; Chan et al., 2021; Sanghera et al., 2020). As such, these culminating challenges have impacted nurses negatively, potentially contributing to the ways that nursing staff interact with patients, particularly vulnerable populations (Al-Awadhi et al., 2017; Haskins et al., 2014; Yaghmour, 2021). Some researchers have reported specifically that nurses have demonstrated more negative attitudes toward patients who use substances (PWUS; Mahmoud et al., 2021; Monks et al., 2013; Renbarger et al., 2021) or toward those with alternate diagnoses and/or comorbidities (Mulyani et al., 2021). Nurses are the most consistent contact point for all patients, and they are typically the primary persons responsible for the observation, recognition, and intervention of PWUS in the hospital setting.

The term "substance" has been defined as any psychoactive compound with the possibility of causing social and well-being harm, including addiction (Mclellan, 2017). Substances may be legal (e.g., alcohol, marijuana); illegal (e.g., heroin, cocaine/crack, and methamphetamine); or controlled by prescribers for medical reasons (e.g., Oxycodone).

Substance use may be for nonmedical reasons or at high doses, both of which can result in either immediate or cumulative harm (Mclellan, 2017). Substance use, a nonstigmatizing term, is a common population health concern in Canada, with rates that increased rapidly in conjunction with the COVID-19 pandemic (Friesen et al., 2021; Wilkinson et al., 2020).

Substance use occurs in the hospital setting because many PWUS are admitted to hospital as the result of adverse health outcomes associated with substance use that may include cellulitis, abscess formation, endocarditis, deep vein thrombosis, and overdose (Monks et al., 2013). Patients have reported continuing their substance use while in the hospital setting (Eaton et al., 2020; Grewal et al., 2015; McNeil et al., 2014), and Trowbridge et al. (2017) estimated that approximately 15% of hospitalized patients were active in their substance use journey. Grewal et al (2015) found that 50% of the 1,028 individuals whom they examined who used drugs and had had at least one hospitalization in their lifetimes reported daily injections of cocaine and/or heroin while in hospital.

Complications associated with drug use typically occur during the most challenging phase of substance users' journey, that is, when they are no longer in control and recreational use has become essential use (Monks et al., 2013). As such, hospitalization is a severe manifestation of this loss of control. Resultantly, PWUS can resort to high-risk behaviours such as injecting with syringes of unknown origin, using contaminated drugs or fillers, sharing needles or injection equipment, and using tap water or saliva in drug preparation to disguise in-hospital use from their health care providers (Dong et al., 2020; McNeil et al., 2014; Sharma et al., 2017; Strike et al., 2020). Subsequently, they are at increased risk for infections, blood-borne diseases (e.g., Hepatitis C and HIV) and nonfatal and fatal overdoses (Tarasuk et al., 2021).

Patients have stated that the rationale for their continued use while is hospital has been the result of unmanaged withdrawal (Grewal et al., 2015; Strike et al., 2020); pain; boredom; loneliness; and sadness (Strike et al., 2020). Patients have tended to use substances in their hospital rooms or bathrooms and/or on hospital grounds to self-manage withdrawal and pain (Strike et al., 2020). Some researchers have suggested that nurses display negative attitudes toward PWUS (Mahmoud et al., 2021; Monks et al., 2013; Renbarger et al., 2021) and that in turn, patients have reported nurses' lack empathy and manifestation of discriminatory behaviours (Brener et al., 2015; Goodman et al., 2017; Grewal et al., 2015; Lago et al., 2017; McNeil et al., 2014; Pauly et al., 2015; Sharma et al., 2017), resulting in a severance of therapeutic alliance between the parties. This dissociation in the alliance can lead to poor patient outcomes (Hyshka et al., 2019) and contribute further to the already present stressors on the nursing workforce.

Understanding nurses' attitudes toward PWUS and the factors that may be associated with the formation of such attitudes may illuminate ways to improve the quality of care that patients receive, their care outcomes, and the overall efficiency of the health care system. Therefore, the overall purpose of my study is to examine nurses' attitudes toward PWUS in the hospital setting and identify potential factors associated with the display of such attitudes (e.g., heavy workload, burnout, adverse childhood experiences, and desirable responding). To achieve the overall purpose of the study, I will distribute a survey to nurses working in an academic health sciences centre in northwestern Ontario. To begin Study 1, I will conduct a psychometric evaluation of the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Watson et al., 2007)) and the Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ; Cartwright, 1980) to see if changing the language to a person-centred focus will result in a valid and reliable tool to measure nurses' attitudes toward PWUS. For Study 2, I will measure nurses' attitudes

toward PWUS in the hospital setting and correlate them with workload, burnout levels, adverse childhood experiences, and desirable responding. For Study 3, I will analyze the current level of organizational support and the facilitators and barriers to caring for this patient population based on the research questions (RQs; see Table 1).

Table 1

Proposed Studies, Associated RQs, and Approach (Methodology & Analysis)

Study no.	Research question	Methods	Analysis
1: A Psychometric Evaluation of a Person-Centred DDPPQ & AAPPQ	Does changingDDPPQ and AAPPQ language to a person-centred focus affect their psychometric properties?	Descriptive, cross-sectional	Confirmatory factor analysis
2: Moving Beyond Nurse Hatchet: Exploring Factors Associated with Nurses' Attitudes Toward PWUS in the Hospital Setting	Are heavy workload, burnout, adverse childhood experiences and social desirability associated with nurses' attitudes toward PWUS in the hospital setting?	Descriptive, cross-sectional	Descriptive statistics Bivariate investigations Linear regression
3: Nurses on the Frontline: The Need for Organizational Backing in Substance Use Care	What are the facilitators and barriers that nurses experience when caring for PWUS in the hospital setting?	Descriptive, cross-sectional	Thematic content analysis

The results of this study will contribute to the new generation of knowledge regarding the psychometric properties of person-centred language for the DDPPQ and AAPPQ; provide cross-sectional evidence describing nurses' attitudes toward PWUS; and determine if workload, burnout, adverse childhood experiences, and desirable responding are associated with nurses' attitudes toward PWUS. Moreover, the responses to the three open-ended questions (i.e., organizational support and the facilitators and barriers to caring for this patient population) will allow health care organizations to create and implement policies, procedures, and/or interventions to target modifiable variables in an upstream manner to mitigate nurses' attitudes toward PWUS in the hospital setting. Such organizational support may result in an increase in nurses' work-related satisfaction and may have the potential to retain current nursing employees.

In addition, the overall findings may result in the improvement of the quality of care that patients receive, their care outcomes, and the overall efficiency of the health care system.

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Literature Review

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Nurses' Attitudes Toward PWUS in the Hospital Setting

The narrative on the attitudes of nurses toward PWUS in the hospital setting has remained consistent over the last 2 decades. A scoping review published in 2000 by Howard and Chung reported findings identical to those seen today (Mahmoud et al., 2021; Monks et al., 2013; Renbarger et al., 2021; Van Boekel et al., 2013) These negative attitudes have been documented worldwide, ranging from North America to South Asia, and they have not been correlated to a specific unit of speciality: Documentation has ranged from mental health areas to labour and delivery as well as medical and surgical units in the hospital setting (Mahmoud et al., 2021; Tan et al., 2022).

Nurses have reported the challenges of caring for PWUS in the hospital setting (Mahmoud et al., 2021; Monks et al., 2013; Van Boekel et al., 2013), and they have identified low motivation, low satisfaction, increased frustration, increased emotional drain, and less fulfilment while working with PWUS (Johansson & Wiklund-Gustin, 2016; Kiepek et al., 2021; Mahmoud et al., 2021; Van Boekel et al., 2013). Moreover, some nurses have reported viewing PWUS as a "waste of space" and "something we have to tolerate" because they have perceived them to be problematic; demanding/defiant (Menard-Kocik & Caine, 2021); and disruptive and rude (Monks et al., 2013; Van Boekel et al., 2013). Overall, nurses have indicated not feeling comfortable working with PWUS (Molina-Mula et al., 2018), and their past interactions with them has left preconceived notions for future interactions (Chozom et al., 2021; Mahmoud et al., 2021; Monks et al., 2013).

Nurses' past interactions with PWUS have left them feeling that these patients are dangerous; as such, nurses have continued to maintain a social distance because of concerns for their personal safety (Chozom et al., 2021; Mahmoud et al., 2021; Monks et al., 2013). Horner et al. (2019) asserted that if nurses feel fearful of PWUS, they tend to assume authoritative roles instead of caring ones, and they begin to "police" patients, a precaution that impairs their ability to form therapeutic relationships. Therefore, nurses often resort to relying on security measures in the hospital environment to help to deescalate interactions with PWUS and/or their visitors (Horner et al., 2019). This consultation also is the result of nurses feeling a sense of liability for patient safety and the safety of others on the unit (i.e., patients and colleagues; Kiepek et al., 2021).

Moreover, when nurses have tried to engage with PWUS, they have shared that patients would withhold information from them and not disclose their substance use (Monks et al., 2013; Renbarger et al., 2021), making it difficult to form therapeutic relationships. As a result, nurses have continued to limit their interactions with PWUS in comparison to other patients (Monks et al., 2013). If nurses are not spending as much time with patients, deficits in nursing assessments and interventions happen, and a forum for patients to express their concerns becomes inaccessible (Atashzadeh-Shoorideh et al., 2020).

Although the majority of researchers who have contributed to the literature have described the negative attitudes of nurses, a few researchers have focused instead on nurses' positive attitudes toward PWUS in the hospital setting (e.g., Chang & Yang, 2013; Chu & Galang 2013; Munoz et al., 2021). Researchers have found that the positive attitudes expressed by nurses have been associated with several factors: (a) more exposure working with PWUS (Chang & Yang, 2013; Chozom et al., 2021; Van Boekel et al., 2013); (b) more guidance and

education on ways to be effective nurses when working with PWUS (Chang & Yang, 2013; Mahmoud et al., 2023); and (c) nurses' personal experiences with substance use (i.e., family members or friends who have had or do have a substance use disorder; Chang & Yang, 2013; Mahmoud et al., 2021).

Nurses' Rationale for Their Negative Attitudes Available in the Literature

Nurses' views on PWUS are based on the belief that substance use is solely an individual choice; therefore, when patients use substances in the hospital setting, nurses feel limited in what they can do to assist the patients if they do not take responsibility for the matter (Merrick et al., 2022; Nusbaum & Farkash, 2022; Pauly et al., 2015). Nurses struggle to understand and put into perspective the activities and choices that PWUS make related to their lives and overall health decisions (Pauly et al., 2015). Nurses respond to clinical situations from their own personal beliefs, they have a particular preference toward abstinence as the foundation to drug and alcohol cessation, and they feel that the hospital environment should be drug free to reduce the risk to staff and other patients (Grewal et al., 2015; Strike et al., 2020). This belief has been exacerbated by the lack of institutional support in the form of nonexistent policies and/or procedure(s) to support nursing staff when caring for PWUS (Ford et al., 2008; Nusbaum & Farkash, 2022; Tan et al., 2022). Nurses have vocalized their concerns about the lack of guidance when caring for PWUS (Hyshka et al., 2019; Kiepek et al., 2021; Menard-Kocik & Caine, 2021), and they have advocated for immediate assistance with PWUS in hospital (Horner et al., 2019; Menard-Kocik & Caine, 2021).

In the absence of institutional policy, an environment of uncertainty has been created, whereby nursing staff have had to solidify their own approaches to informal policies based on their own values and beliefs to guide their decision making (Strike et al., 2020). Because of the

unique values and beliefs of nurses, patients may experience various responses across one single admission (Strike et al., 2020). Abstinence-based strategies might include immediate discharge; threats of discharge if patients do not change their behaviours; increased monitoring, confiscation of drugs, paraphernalia, and/or belongings; and termination of medications and/or current treatment plans (Strike, Watson, et al., 2020). Furthermore, staff can refuse or limit the entry of visitors, and they also can refuse patients the right to leave their hospital rooms, resulting in the restriction of basic human rights (Kiepek et al., 2021). For these reasons, hospitals need to honour the individual autonomy of patients and develop clear expectations for their staff (Kiepek et al., 2021).

Gaps in the Literature

Upon critical reflection and a robust synthesis of the available research relevant to nurses' attitudes toward PWUS in the hospital setting, I identified some gaps in the research literature that led to the following questions: (a) What sociodemographic characteristics are correlated with nurses' attitudes toward PWUS, and to what extent? (b) In what way is the study setting (location) and target population correlated with nurses' attitudes toward PWUS? (c) Are nurses' attitudes different based on the substance (e.g., alcohol or drugs)? and (d) Can workload, burnout, adverse childhood experiences, and/or desirable responding affect nurses' attitudes toward PWUS?

Sociodemographic and Professional Characteristics

Previous researchers did not provide demographic and socioeconomic information about their nurse participants, with most researchers capturing minimal data (e.g., age, gender, and unit of work). Only one study, namely, that of Maghsoud et al. (2023), completed a bivariate analysis of nurses' demographics, personal and professional attitudes, and willingness to care for patients

with alcohol use problems. However, it is important to collect and describe participants' demographic data when conducting research (Hammer, 2011) to determine how these characteristics are related to nurses' attitudes. Hammer (2011) recommended that at a minimum, information about age, race, gender, language, education, and socioeconomic status be collected, with additional attention and consideration being given to other specific populations being studied. For the nursing target population in my study, it is important to include, along with the aforementioned information, immigration or cultural group association (i.e., to assess attitudes toward drug and alcohol use), particularly because there has been a recent influx of internationally trained nurses to Canada to address the global staffing crisis. Factors specific to nurses' employment and work conditions that affect the formation and/or exacerbation of negative attitudes toward PWUS (e.g., employment status and overtime hours spent may lead to burnout, which could affect nurses' attitudes) also should be collected.

Study Location and Target Population

Although nurses' attitudes have been documented in global studies (e.g., Chang et al., 2013; Chozom et al., 2021; Crothers & Dorian, 2011; Johansson & Wiklund-Gustin, 2016; Menard-Kocik & Caine, 2021; Monks et al., 2013; Nusbaum & Farkash, 2022), most research has originated in the United States, with the majority of studies being conducted in large urban centres (e.g., Chang et al., 2013; Crothers & Dorrian, 2011; Mahmoud et al., 2020, 2023; Molina-Mula et al., 2018; Munoz et al., 2021; Nusbaum & Farkash, 2022; Tan et al., 2022). Differences in health care systems and overall population health characteristics affect the generalizability of study results to other locations, particularly northern, rural, and remote areas.

Populations living in northern, rural, and remote areas face challenges accessing health care that may include, but not be restricted to, geographic isolation or long distances to clinics

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and hospitals; lack of primary health care providers; inclement weather; lack of culturally appropriate services (e.g., Francophone and Indigenous); lack of access to transportation services; and chronic deficits regarding human health resources (Rural Ontario Municipal Association, 2024). These challenges translate to direct health impacts: lower overall health status, lower life expectancy, and overall poorer health status (e.g., higher rates of obesity and age-standardized mortality rates (Subedi et al., 2019).

In Ontario, opioid-related harms are high and have been on an inclining trajectory over the last decade (Public Health Ontario, 2021). For example, from January 2018 to June 2022, 10,024 Ontarians died because of substance use, with rates of death depending on substance: opioids (81.4%), stimulants (60.9%), alcohol (13.4%), and benzodiazepines (7.8%; Public Health Ontario, 2024). Of these 10,024 deaths, 61.3% of the individuals had health care encounters for their substance use in the last 5 years, and 1,995 individuals were treated in hospital for nonfatal substance-related toxicity in the past year (Public Health Ontario, 2024).

In addition, Ontario has the largest Indigenous population in Canada (374,395), representing 2.8% of the total provincial population (Government of Ontario, 2020). Indigenous individuals who live in Ontario are being affected substantially by the opioid crisis. Rates of opioid-related hospitalizations and emergency department visits have been recorded as approximately 4 times higher among Indigenous patients than the general population (Institute of Clinical Evaluative Sciences, 2021). The rates of opioid-related deaths have been increasing at a more rapidly among Indigenous people than the general population (Institute of Clinical Evaluative Sciences, 2021), and the rates of injection-related blood-borne illness, such as HIV and Hepatitis C are greater in the Indigenous populations living in Ontario (Tarasuk et al., 2021). The impact of colonialism, poor access to health care, and socioeconomic disadvantage have

contributed to the vulnerability of drug-related harms to the Indigenous population (Health Quality Ontario, 2017; Reading & Wien, 2009). The impacts of northern, rural, and remote nursing, in addition to the prevalence of substance use in these areas, may result in nurses having different attitudes toward PWUS than those of urban counterparts.

AAPPQ and DDPPQ as Measurements of Attitudes Toward Alcohol and Drug Use

The AAPPQ and DDPPQ (Cartwright, 1980; Watson et al., 2007) are validated tools that have been used the most commonly by researchers (Crothers & Dorrian, 2011; Munoz et al., 2021; Tan et al., 2022). Researchers have used these questionnaires independently to look at one substance measure or the other (i.e., drugs [DDPPQ] or alcohol [AAPPQ]). To my knowledge, no other researcher to date has used the AAPPQ and the DDPPQ together to examine both substance measures (i.e., drugs and alcohol) from the perspectives of one sample of nurses. My study may help to delineate any differences in negative attitudes of nursing staff based on the category of the substance under examination (e.g., Are nurses' attitudes more positive when related to alcohol use vs. drug consumption?).

Other Factors That May Affect Nurses' Negative Attitudes Toward PWUS

I found no studies in my review of the literature that had directly examined the relationships between and among other potential factors affecting nurses' attitudes toward PWUS in the hospital setting. Throughout literature synthesis, clinical knowledge, and professional experience, several factors should be considered. Each one is discussed next.

Nurses' Past Experiences

Several researchers have indirectly measured nurses' past personal experiences specific to their attitudes toward caring for PWUS, with some nurses who had had personal experience with substance use (i.e., a friend or family member with a substance use disorder) reporting

positive attitudes (Chang & Yang, 2013; Mahmoud et al., 2023; Van Boekel et al., 2013).

However, no formal investigations have been conducted on the relationship between nurses'

attitudes and adverse childhood experiences, and how theses previous may have contributed to

the formation of attitudes toward PWUS in the hospital setting. Perhaps, other adverse childhood

experiences such as neglect, abuse, fragmented family caused by divorce, mental illness, and/or

incarceration of a family member) may also have influenced nurses' attitudes toward PWUS in

the hospital setting.

Societal Expectations of Nurses

The attitudes and behaviours relevant to nurses' interactions with PWUS in the hospital

setting are in stark contrast to the code of conduct espoused by the College of Nurses of Ontario

(2023), which outlines nurses' accountability to their patients, colleagues, employers, and the

public. The code of conduct explains the expectations of nurses and the ways that nurses must

maintain competence, professionalism, and ethical behaviour to deliver safe care to patients

(CNO, 2023). The six principles underpinning nurses' core behaviours include respect for

patients' dignity; inclusive and culturally safe care, thereby exhibiting cultural humility;

competent care; interprofessional collaboration; integrity and maintenance of the best interests of

patients; and retention of public confidence in the nursing profession (CNO, 2023). All

principles have equal importance in describing the conduct, behaviour, and professionalism

necessary for safe and ethical nursing practice in Ontario.

Nurses understand their professional accountability, as does society as a whole. Nurses

are highly valued and are expected to act in a manner conducive to "being a nurse"; therefore,

some nurses may respond to the survey based on how they think that they should respond

according to societal expectations (i.e., "social desirability bias") rather than express their true feelings toward PWUS in the hospital setting.

Workload

Following the pandemic, a substantial deficit in nursing staff remains, resulting in increases to nurses' workloads (Tamata et al., 2021; Tomblin Murphy et al., 2022). High workloads lead to gaps in nursing care (i.e., rationed nursing care); lower levels of job dissatisfaction; and more emotional exhaustion (Maghsoud et al., 2022). When nurses have to care for more patients than normally expected, they are forced to "miss" aspects of their care, which results in a decreased quality of care (Kalisch et al., 2009). When nurses miss care that they had intended to complete, negative attitude toward their job performance can arise, thus leading to job dissatisfaction (Farman et al., 2017; Semachew et al., 2017) and overall emotional exhaustion and burnout (Sullivan et al., 2022; Van Bogaert et al., 2009).

Prolonged exposure to stressful environments may have an impact on how nurses view their role and their patients, and it may be a contributing factor in the formation of negative attitudes toward PWUS in the hospital setting. As nurses have reported in previous studies, PWUS are a challenging patient population to care for under normal circumstances (Mahmoud et al., 2021; Renbarger et al., 2021; Van Boekel et al., 2013), but higher workloads may further exacerbate and perpetuate their negative attitudes toward PWUS.

Burnout

Rates of nursing burnout increased following the pandemic (RNAO, 2022). Prior to the pandemic, nurses had reported feeling burned out occasionally, but post-COVID-19, nurses have reported experiencing one or more symptoms of burnout, with 75.3% of the 5,200 nurses working in Ontario feeling burned out, exhausted, and disengaged (RNAO, 2022). Nurses

typically care for others and do not do as good a job caring for themselves, so 73.8% of the 5,200 nurses shared that they had not taken time off work to manage their stress, anxiety, or mental health-related issues to address their burnout levels (RNAO, 2022). As such, prolonged states of burnout in nursing have led to challenges to deal effectively with nurses' own mental and physical health, retention of nursing staff, and deficiencies in patient care that have meant a decrease in the quality of care that patients receive and overall concerns for patient safety (Sullivan et al., 2022).

Summary of Literature Review

The research literature on nurses' attitudes toward PWUS in the hospital setting has indicated that the majority of nurses continue to manifest negative attitudes toward this patient population. Nurses' rationale for such attitudes is that they believe that patients should have control over their own substance use because it is a personal choice. They also believe that the hospital setting should be a substance-free environment (i.e., abstinence-based approach). They do not currently feel supported by their employing organizations in caring for this patient population, nor do they feel that they have the knowledge to manage PWUS adequately in the hospital setting.

Recent studies have lacked representation from a Canadian context, especially from a northern, rural, and perspective. In addition, there has been a need to focus on nurses' demographic and socioeconomic factors; their attitudes about different substances such as drugs and alcohol; and other variables that may have impacted the formation of such attitudes (e.g., adverse childhood experiences, societal expectations of nurses, and current workload and burnout levels. Thus, I intend to obtain data relevant to nurses' attitudes and the care that they provide to PWUS to better understand the factors contributing to such attitudes. With these data

available to them, health care organizations may be willing to adopt pragmatic approaches to shifting the current culture to improve not only the quality of care that patients receive but also their health outcomes. I will follow a descriptive, cross-sectional design to address three RQs:

1. Does changing DDPPQ and AAPPQ language to a person-centred focus affect their psychometric properties?

2. Are workload, burnout, adverse childhood experiences, and social desirability associated with nurses' attitudes toward PWUS in the hospital setting?

3. What are the facilitators and barriers that nurses experience when caring for PWUS in the hospital setting?

Chapter 2: Methodology

This descriptive study will be reported in accordance with STROBE (i.e., strengthening the reporting of observational studies in epidemiology) guidelines for observational studies.

Study Design

I will conduct my study following a cross-sectional design. Two versions of an online survey (see Appendix A) will be distributed to all 1,400 nurses working in an acute care hospital in Thunder Bay, Ontario, during the fall of 2024. Both versions of the survey will be identical, except for the first scale of measurement: the AAPPQ (Cartwright, 1980) and the DDPQ Watson et al., 2007). Version 1 will comprise the original AAPPQ and DDPQ, and Version 2 will comprise the same questionnaires with modifications so that the original language will be amended to person-centred language (e.g., using "individuals who drink alcohol" instead of "drinker" and "individuals who use drugs" instead of "drug user").

The anticipated sample of 350 nurses will be randomly assigned to complete the AAPPQ or the PC-AAPPQ and the DDPPQ or the PC-DDPPQ via the survey software REDCap. Because of the nature of the nursing role (e.g., time constraints, patient care needs, unpredictability of each shift), I considered an online survey the most appropriate way to collect my data. The nurses will have the opportunity to complete the survey when they have the time available to do so. It is a more convenient method to collect the data than other options such asking nurses to come in on their days off or trying to facilitate leaving the units to complete the survey in an in-person and/or hard copy format.

Setting

The Thunder Bay Regional Health Sciences Centre (TBRSHC, 2024) is a 375-bed acute care hospital serving more than 250,000 residents in the Northwest Region (e.g., District of

Kenora [including Dryden and Red Lake]; Rainy River [including Emo, Fort Frances, Atikokan]; District of Thunder Bay [including Greenstone, Manitouwadge, Marathon, Nipigon, and Terrace Bay]; the City of Thunder Bay; and northern subregions [including Sioux Lookout]). The TBRHSC is an academic health sciences centre with a range of specialty services (TBRHSC, 2024). This region has a higher incidence of substance use when compared to other parts of Ontario (Health Quality Ontario, 2017).

I will distribute the online survey via email to all 1,400 nurses at TBRHSC who provide direct patient care (i.e., registered nurses and registered practical nurses) on September 23, 2024. The survey will remain open for 3 weeks. It will be closed on October 7, 2024. I will send a reminder email on October 2, 2023, to ask the nurses to complete the survey before October 7. I will post recruitment posters at the hospital with pertinent information pertaining to the study, and I will make a QR code available for the nurses to access the survey. I also will place the poster and QR code on the hospital's internal electronic communication board (i.e., the Informed). I also will schedule and promote in-person drop-in sessions on September 25, September 28, October 3, and October 7, 2024, to help with recruitment. A light lunch will be served at each session. Potential participants who attend the lunch on October 7 will be advised that the survey will close at midnight. At these events, a QR code linking to the survey will be available for interested participants to complete. All responses to the survey will be captured electronically through REDCap.

Participants

Nurses who hold current registration as registered nurses or registered practical nurse in Ontario and are employed on a casual, part-time, full-time, or temporary basis at TBRHSC in nursing roles that provide direct patient care will be invited to participate in the study. Advanced

practice nurses (i.e., clinical nurse specialists and nurse practitioners) and nurses in leadership

roles (i.e., nurse managers, nursing directors, etc.) will be excluded from the study.

Variables and Data Sources/Measurement

The dependent variable (DV) will be nurses' attitudes toward PWUS that I will measure

using the DDPPQ, the PC-DDPPQ, the AAPPQ, or the PC-AAPPQ. The independent variables

(IVs) will be nurses' past experiences, as measured by the Adverse Childhood Experience (ACE)

Questionnaire; nurses' current workload, as measured by the MISSCARE survey; nurses' level

of burnout, as measured by the Maslach Burnout Inventory for Medical Personnel (MBI-

HSS[MP]); and nurses' level of desirable responding, as measured by the Balanced Inventory of

Desirable Responding (BIDR; see Tables 2 & 3).

Table 2

Variables, Measurement Tools, and Modifications

Variable	Measurement tool	Structure of measurement	Interpretation	Modifications	Psychometric properties
Nurses' attitudes toward PWUS	Original DDPPQ	20 items, 5-point Likert-scale (Watson et al., 2007)	Lower score = positive attitude Higher score = negative attitude	None	$\alpha = 0.87$ (Watson et al., 2007)
	PC-DDPQ	19 items, 5-point Likert-scale		DDPPQ adapted to PC-DDPQ = "drug users" changed to "individuals who use drugs", "drug problems" changed to "drug-related problems" (mimicking Mahmoud et al., 2023)	$\alpha = 0.609$ to $\alpha = 0.917$, Bartletts test of sphericity ($p <$ .001) and KMO (0.818), CFI = 0.959, TLI = 0.951, SRMR = 0.053, RMSEA = 0.058 (Mahmoud et al., 2023)
	Alcohol: Original AAPPQ	29-items, 5-point Likert scale (Cartwright, 1980)	Lower score = positive attitude Higher score = negative attitude	None	$\alpha = 0.7$ to $\alpha = 0.9$ (Cartwright, 1980)
	PC-AAPPQ				

Variable	Measurement tool	Structure of measurement	Interpretation	Modifications	Psychometric properties
		Seven-factor structure, 30-item (inclusion of 2 other factors: role support and general perceptions) (Mahmoud et al., 2020)		AAPPQ adapted to PC-AAPQ = "drinkers" changed to "drinking", "alcohol use" changed to "individuals who drink alcohol" (mimicking Mahmoud et al., 2020)	α = 0.609 to α = 0.917, Bartletts test of sphericity (p < .001) and KMO (0.858), RMSEA = 0.065, SRMSR = 0.071, CFI = 0.871, NFI = 0.793, NNFI = 0.855 (Mahmoud et al., 2020)
Nurses' past experiences	Original ACE Questionnaire (Felitti et al., 1998)	10-item questionnaire, 1 point given to each answer of "yes"	0-3 points = negative score 4+ = positive score	None	
	Modified ACE Questionnaire	5-item questionnaire, 1 point given to each answer of "yes"	1-2 points = negative score 3-5 points = positive score	Original 10 items reduced to 5 items. The questions were modified to be less descriptive, taking into consideration the time and environment in which the survey was being completed (i.e., when a nurse is at work) and the sensitive nature of the questions	Not available
Nurses' current workload	MISSCARE questionnaire (Kalisch & Williams, 2009)	Three-factor, 24 items; Part A Three-factor, 17 items; Part B	Part A: 24 items, 5-point Likert scale Part B: 17-items, 4-point Likert scale	None	α = 0.693 to α = 0.851, Bartletts test of sphericity (p < .001) and KMO (0.9), RMSEA = 0.054, CFI = 0.89, IFI = 0.9, TLI = 0.85, Pearson correlation coefficient 0.87 (Part A), 0.86 (Part B)

Variable	Measurement tool	Structure of measurement	Interpretation	Modifications	Psychometric properties
Nurses level of burnout	MBI-HSS(MP) (Maslach	22-item questionnaire contains three scales: emotional exhaustion, depersonalization, and personal accomplishment	Summative score; exhaustion and depersonalization, higher scores = higher degrees of burnout. Personal accomplishment, lower scores = higher degrees of burnout.	None	(Kalisch & Williams, 2009) $\alpha = 0.73$ to $\alpha = 0.83$, reliability (0.73 and 0.83), test-retest satisfactory , CFI = 0.941, TLI = 0.929 (Lin et al., 2022)
Nurses level of desirable responding	BIDR	40-item questionnaire; two constructs: self-receptive positivity and impression management	7-point Likert scale, higher score = the more social deception of the respondent	None	Alpha = 0.83, test-retest 0.69 and 0.65

Table 3

Independent Variables

	MISSCARE	MBI-HSS(MP)	ACE*	BIDR
Measures	Workload	Burnout	Adverse childhood experiences	Social desirability
Scale of measurement	Likert Part A: 5-point scale Part b: 4-point scale	Likert, 6-point	1 point for each answer of "yes" to the question	Likert, 7-point scale
Dimensions	Part A: Missed nursing care of various tasks Part B: Reason for nursing error	Emotional exhaustion, depersonalization, and personal accomplishment	Childhood emotional, physical, or sexual abuse, and household dysfunction	Self-receptive positivity and impression management
Number of items	Part A: 24 Part B: 17 = 41	22	5	40
Scoring	Part A: Higher scores represented higher levels of missed nursing care Part B: Higher scores represent a more pertinent reason for missed nursing care.	Sum each scale independently. For emotional exhaustion and depersonalization, the higher scores indicated higher degrees of burnout. For personal accomplishment, the lower scores indicated higher degrees of burnout.	A score of 2 or greater = positive score. Score of less than 2 (i.e., 0 or 1) = negative score.	1 point for every 6 or 7 scored, the higher the score the higher the social desirability

Note. *Modified measure

In addition, three open-ended questions about the current level of organizational support and the facilitators and barriers to caring for PWUS in the hospital setting will be asked. The full survey has been piloted by 15 stakeholders (e.g., content experts, clinical nurse specialists, survey experts, nursing leaders and frontline nurses) to ensure readability and accuracy. I considered all suggestions from the stakeholders, and I modified the survey accordingly.

Bias

This study has two potential sources of bias, namely, sampling bias and measurement bias. Sampling bias refers to the possibility that the sample may be overrepresented by specific cohorts (e.g., male or female gender, stronger or more tolerant attitudes toward drug and alcohol use, more experienced nurses versus more novice nurses, younger or older nurses). Because of time and financial constraints, conducting a larger multisite study with a more representative sample was not feasible. Measurement bias will be reduced because all measurements are validated tools that have undergone psychometric testing. For the two tools that were modified (i.e., PC-DDPPQ, PC-AAPPQ) and the ACE Questionnaire, reliability estimates will be generated to ensure consistency.

Sample Size

In accordance with the COSMIN guidelines for structural validity, I will need a minimum sample of 350 participants. This was determined because the AAPPQ has 30 items of measurement and the DDPPQ has 20 items of measurement, so when these 50 items are multiplied by 7, 350 participants are required to achieve statistical power.

Statistical Methods

I will explain the analytical approach to each study (Study 1, Study 2, & Study 3) in subsequent chapters. All of the data collected in REDCap will be reviewed for errors and completeness. If data are incomplete, a listwise deletion approach will be taken.

Consent

I will send an email with study details and a QR code to all 1,400 registered nurses and registered practical nurses employed at the hospital (see Appendix B). The details will include a brief description of the study, its purpose, and its objectives. The email will provide an explanation of the voluntary nature of joining the study and that there will be no repercussions on current job status/employment should any registered nurses or registered practical nurses decide not to participate. All survey answers will be completely anonymous and will not be linked to any of the participants.

Also included in the email will be a link and a QR code. It is understood that by clicking the QR code or the link to the survey, the participants are providing implied consent. In the body of the email, participants will be informed that by proceeding to the survey, they are giving implied consent to be in the study.

Ethical Considerations

Ethics approval will be obtained from TBRHSC's Research Ethics Board (REB). All participants will self-screen for eligibility and will be given details describing the study, as already mentioned. I will provide the registered nurses and registered practical nurses who agree to participate in the study with the contact information of the Employee and Family Assistance Program (i.e., a service available to them as employees of the hospital) because some items in the survey may cause emotional responses (e.g., workload and missed patient care [moral

distress, burnout], feelings of anxiety and depression, adverse childhood experiences,

posttraumatic stress, or anxiety).

Limitations

I will use a sample of convenience, so the generalizability of the results may be limited.

The respondents will be employed at one academic health sciences centre and may lack diversity

in terms of demographic characteristics, socioeconomic status, and other relevant factors that

could lead to a narrow perspective. In addition, the participants will self-select to join the study,

so nurses with stronger opinions or experiences with PWUS may be more likely and willing to

complete the survey.

Chapter 3: Study 1: A Psychometric Evaluation of DDPPQ and AAPQ

Introduction

Study 1 will be guided by one RQ: Does changing DDPPQ and AAPPQ language to a person-centred focus affect their psychometric properties?

The Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Watson et al., 2007)) and the Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ; Cartwright, 1980) were developed decades ago and have since been used to measure clinicians' attitudes toward patients who use substances (PWUS). The AAPPQ was based on a theoretical framework of two concepts: role security, which includes role adequacy, role legitimacy, and role support, and therapeutic commitment, which includes motivation, task-specific self-esteem, and work satisfaction (Cartwright, 1980). The questionnaire is a five-factor, 30-item measurement that has demonstrated good validity and reliability (Cartwright, 1980).

The DDPPQ (Watson et al., 2007) was adapted from the aforementioned AAPPQ (Cartwright, 1980) and consists of five constructs: role support, role legitimacy, role adequacy, role related self-esteem, and job satisfaction. This five-factor, 20-item questionnaire has also demonstrated good validity and reliability (Mahmoud et al., 2020; see Table 4).

Table 4

Comparison of Original and Person-Centred AAPPQ and DDPPQ

Tool of measurement	Original AAPPQ (Cartwright, 1980)	PC-AAPPQ (Mahmoud et al., 2020)	Original DDPPQ (Watson et al., 2007)	PC-DDPPQ (Mahmoud et al., 2023)
Study sample	Health care and addiction staff	Undergraduate nursing students	Medical staff, clinical psychologists, occupational therapists and nurses	Undergraduate nursing students
Constructs in measurement	Role Security: -role adequacy -role legitimacy	Same as AAPPQ	-role adequacy -role legitimacy -role support items	Same as DDPPQ

Tool of measurement	Original AAPPQ (Cartwright, 1980)	PC-AAPPQ (Mahmoud et al., 2020)	Original DDPPQ (Watson et al., 2007)	PC-DDPPQ (Mahmoud et al., 2023)
	Therapeutic Commitment: -motivation -task-specific self-esteem -work satisfaction		-role related self-esteem -job satisfaction	
Factor structure	Five-factor, 29-item	Seven-factor structure, 30-item (inclusion of 2 other factors: role support and general perceptions)	Five-factor, 20-item	Five-factor, 19-item
Psychometric properties	$\alpha = 0.7$ to $\alpha = 0.9$	$\alpha = 0.609$ to $\alpha = 0.917$, Bartletts test of sphericity ($p < .001$) and KMO (0.858), RMSEA = 0.065, SRMSR = 0.071, CFI = 0.871, NFI = 0.793, NNFI = 0.855	$\alpha = 0.87$	$\alpha = 0.609$ to $\alpha = 0.917$, Bartletts test of sphericity ($p < .001$) and KMO (0.818), CFI = 0.959, TLI = 0.951, SRMR = 0.053, RMSEA = 0.058

Although both the AAPPQ and the DDPPQ have been found to be effective validated tools,, the language used in both questionnaires did not align with academic advocacy for the use of person-centred language (Mental Health Commission of Canada (2024); National Institute on Drug Abuse [NIH], 2024; Traxler et al., 2021). Person-centred language involves putting the "person" in the language used rather than defining the person by such descriptors as illness or condition (Mental Health Commission of Canada, 2024; NIH, 2024). When stigmatizing language alcoholic or drug user is used, individuals may not be able to see themselves separate from their conditions, thus hindering their ability to attain some of their life goals (Mental Health Commission of Canada, 2024; NIH, 2024; Traxler et al., 2021). When people, specifically clinicians, use person-centred language, they are demonstrating respect and decreasing stigma (Mental Health Commission of Canada, 2024; NIH, 2024).

In the AAPPQ (Cartwright, 1980), the term "drinker" is used to describe someone who drinks alcohol. In the DDPPQ (Watson et al., 2007), the term "drug user" is used to describe

someone who uses drugs. The use of non-person-centred language may influence the participants' responses to the survey (i.e., bias), further perpetuating stigma toward certain patient populations (Mahmoud et al., 2023).

To examine the effect of using person-centred language in the AAPPQ and the DDPPQ, Mahmoud et al. (2020) and Mahmoud et al. (2023) developed the PC-AAPPQ and PC-DDPQ modified versions. Mahmoud et al. (2020) administered the PC-AAPPQ to 637 nursing students. Their exploratory and confirmatory factor analyses indicated that a seven-factor structure with all 30 items was the best fit for the PC-AAPPQ. On the other hand, Mahmoud et al. (2023) administered the PC-DDPPQ to 400 undergraduate nursing students. Their exploratory and confirmatory factor analyses indicated that a five-factor, 19-item questionnaire (removal of Item 14) was the best fit. To my knowledge, these are the only psychometric evaluations available examining person-centred versions of the original AAPPQ and DDPPQ. The purpose of my proposed study is to determine if changing the language in the original AAPPQ and DDPPQ to develop the PC-AAPPQ and PC-DDPQ versions for use with registered nurses and registered practical nurses affects their psychometric properties.

Methods

The methodology was described in Chapter 2.

Data Analysis

Prior to examining the psychometric properties of both PC versions, the negatively worded Items 17-19, 21-24, and 26 in the PC-AAPPQ and Items 13, 15, 16, and 17 in the PC-DDPPQ will be reverse coded to align with the original methods of the AAPPQ and the DDPPQ. Participants will be randomly divided into two equal but distinct data sets or groups. The respondents in the control group will complete the original AAPPQ and DDPPQ, and the test

group will complete the PC-AAPPQ and PC-DDPPQ. A confirmatory factor analysis (CFA) will be conducted on each group. The model fit for the AAPPQ will be examined across a seven-factor structure and the DDPPQ will be examined across a five-factor structure. Root means square approximation (RMSEA), standardized root mean square residual (SMSR), comparative fit index (CFI), and normed fit index (NFI) will be used to determine the fit between the observed data and the model. In order to determine good model fit, Hu and Bentler (1999) recommended using RMSEA values of ≤ 0.60; SRMSR value of $\leq .80$; and CFI, NFI, and NNFI values of ≥ 0.90. Therefore, these cutoffs will be used. After verification of the structure, the subscales generated will be labeled in accordance with the original AAPPQ and DDPPQ.

Discussion

This study will be the first to examine the psychometric properties of both the PC-AAPPQ and PC-DDPPQ with registered nurses and registered practical nurses and will contribute to the current body of literature by providing additional psychometric properties on the modified versions. The results will be beneficial to future researcher who might wish to examine clinicians' attitudes in a more contemporary way. These modifications to make the language in the questionnaires more person centred aligns with the current momentum to reduce the stigmatization of PWUS. Based the previous two studies examining the PC-AAPPQ and the PC-DDPPQ (Mahmoud et al., 2020, 2023), I anticipate that the psychometric properties may change slightly in factor and/or item structure, although continuing to hold good reliability and validity. If a difference is found in the structures (e.g., AAPPQ and PC-AAPPQ vs. DDPPQ and PC-DDPPQ), it will be controlled for in the analysis.

Limitations

The limitations of this study were described in the Overall Methods section in Chapter 2.

Chapter 4: Study 2: Moving Beyond Nurse Hatchet: Exploring Factors Associated With Nurses' Attitudes Toward PWUS in the Hospital Setting

Introduction

Study 2 will be guided by one RQ: Are workload, burnout, adverse childhood experiences, and social desirability associated with nurses' attitudes toward PWUS in the hospital setting?

Nurses' negative attitudes toward PWUS are unfortunate (Mahmoud et al., 2021; Monks et al., 2013; Renbarger et al., 2021) because caring for patients who use substances (PWUS) makes nurses feel less fulfilled and less motivated (Kiepek et al., 2021; Mahmoud et al., 2021; Van Boekel et al., 2013). In addition, nurses experience increased levels of emotional drain and frustration while working with PWUS (Ford et al., 2008; Johansson & Wiklund-Gustin, 2016; Mahmoud et al., 2021). Nurses have described PWUS as rude troublemaking people (Monks et al., 2013; Van Boekel et al., 2013), and they have expressed their not wanting to care for this patient population (Molina-Mula et al., 2018).

Mirroring these sentiments, PWUS have validated these findings, describing nurses viewing them as noncompliant, bad, and demanding people (Chan Carusone et al., 2019; Goetz et al., 2023; Turpel-Lafond, 2020). PWUS have witnessed outright discrimination in the hospital setting, being referred to as "frequent flyers," "drinkers," and "junkies" (Chan Carusone et al., 2019; Goetz et al., 2023; Turpel-Lafond, 2020). PWUS also have reported cases of nurses ignoring them (Lago et al., 2017; McNeil et al., 2014; Pauly et al., 2015; Sharma et al., 2017) or denying them pain medication (McNeil et al., 2014; Sharma et al., 2017; Strike et al., 2020). These two reasons have helped to explain why they leave hospital prior to completing medical therapy (McNeil et al., 2014; Monks et al., 2013; Strike et al., 2020).

In previous studies, nurses have explained that their rationale for such attitudes toward PWUS in the hospital setting lies in their belief that patients should have control over their own substance use and that it is a personal choice (Merrick et al., 2022; Nusbaum & Farkash, 2022), Nurses also have asserted that the hospital should a substance-free environment (i.e., abstinence-based approach; Grewal et al., 2015; Strike et al., 2020). Nurses have reported not feeling supported by the employing organizations in caring for PWUS (i.e., regarding policies and procedures; Ford et al., 2008; Nusbaum & Farkash, 2022; Tan et al., 2022) and not having sufficient knowledge to manage events adequately that can transpire when someone actively engages in substance use in the hospital setting (Hyshka et al., 2019; Kiepek et al., 2021; Menard-Kocik & Caine, 2021). It is important to further understand the relationship between nursing perceptions and organizational shortcomings.

Gaps in the Research Literature

What has been lacking in the literature is an exploration of other factors (i.e., nurses' past experiences, current workload, level of burnout, and societal expectations of nurses) experienced by individual nurses or the contributions of the work environment in forming negative attitudes. Each factor is discussed next.

Nurses' Past Adverse Childhood Experiences

Researchers have indirectly measured nurses' past adverse childhood experiences affecting their attitudes toward PWUS. Nurses who had had personal experience with substance use (i.e., friends or family members with a substance use disorder) reported positive attitudes (Chang & Yang, 2013; Mahmoud et al., 2023; Van Boekel et al., 2013). However, the past experiences of nurses have been explored in a very narrow way, so obtaining a more generalized

perspective may help to increase the current understanding of the features and qualities of nurses that support their care of PWUS in the hospital setting.

Burnout

Rates of nursing burnout increased following the pandemic (RNAO, 2022). As mentioned earlier, 75.3% nurses in Ontario have expressed feeling burned out, exhausted, and disengaged (RNAO, 2022). A total of 73.8% of these nurses stated not having taken time off work to manage their stress, anxiety, or mental health-related issues to address burnout levels (RNAO, 2022). As such, prolonged states of burnout in nursing can lead to challenges with nurses' own mental and physical health, nursing retention, and deficiencies in patient care resulting in decreased quality of care and overall concerns for patient safety (Sullivan et al., 2022).

Burnout can lead to depersonalization, emotional exhaustion, and a lack of personal accomplishment (Maslach & Leiter, 2016; Wang et al., 2024), resulting in nurses experiencing a negative emotional state of irritability (Wang et al., 2024). No current evidence into the relationship between active burnout and the care of PWUS exists. As nurses continue to report that caring for PWUS is challenging under normal circumstances, when nurses feel burned out, their negative attitudes toward PWUS increase.

Workload

In addition to increased rates of burnout following the pandemic was a substantial deficit in nursing staff, resulting in increased workloads (Heistad et al., 2022; Tamata et al., 2021). High workloads lead to gaps in nursing care (i.e., rationed nursing care); lower levels of job dissatisfaction; and more emotional exhaustion (Maghsoud et al., 2022). When nurses are caring for more patients than normally expected, they are forced to "miss" aspects of their care, which

results in a decrease in the quality of care (Cho et al., 2020; Kalisch et al., 2009). When nurses miss care that they had intended to complete, negative attitudes toward job performance can prevail, thus increasing job dissatisfaction (Farman et al., 2017; Semachew et al., 2017). It is important to consider workload and how it changes in the context of caring for PWUS.

Societal Expectations of Nurses

The attitudes and behaviours of nurses as they interact with PWUS in the hospital setting are in stark contrast to nurses' regulatory bodies and their expectations (CNO, 2023). For example, the code of conduct supported by the CNO (2023) describes nurses' accountability to their patients, colleagues, employer, and the public. The six principles underpinning the core behaviours that all nurses are to uphold include respect for patients' dignity, inclusive and culturally safe care, thereby exhibiting cultural humility; competent care; interprofessional collaboration; integrity and actions that are in the best interest of patients, and maintenance of public confidence in the nursing profession (CNO, 2023). Nurses understand their professional accountability, as does society as a whole. Nurses are highly valued and are expected to act in a manner conducive to "being a nurse"; therefore, the influence of collegial and societal expectations could shape the answers about PWUS that the participants may give on the survey.

To date, the impact of this influence has not been considered. If nurses were to report high levels of social desirability, this information would be beneficial to health care organizations when designing and implementing education, interventions, and/or policies and procedures to tailor their efforts strategically (e.g., increase awareness around social desirability and emphasize patient-centred care and compassion in an effort to reduce stigma and standardize protocols to decrease environments of uncertainty. Therefore, the purpose of my study is to examine nurses' attitudes toward PWUS in the hospital setting. I intend to specifically measure

the associations among adverse childhood experiences, nurses' current workloads, and nurses' level of burnout. This analysis also would assess if nurses respond to the survey based on perceived social desirability.

Methods

The methodology was described in Chapter 2.

Data Analysis

For this analysis, I will perform descriptive statistics on the data set using the means and standard deviations for the quantitative variables and frequencies and percentages for the categorical variables (see Table 5). Next, I will conduct bivariate analyses to examine the outcomes of each scale of measurement. Following the bivariate investigations, I will use multiple linear regression to examine the DV of the nurses' attitudes and the IVs. The order of loading into the model will be dependent upon any associations found between an IV and the DV (i.e., nurses' negative attitudes). For example, if adverse childhood experiences are found to be correlated with nurses' negative attitudes, they would be included in the model; however, if burnout is not correlated, it would be excluded (e.g., ground-up approach). Model of fit will be assessed using the F test to assess whether the IVs collectively predict the DV. Residual diagnostics will be examined. Adjusted R^2 will be reported and used to determine how much variance in the DV can be accounted for by the IVs. The t test will be used to determine the significance of each predictor and regression coefficient ß to determine the extent of prediction for each IV. If a high level of social desirability is found in the sample, it will be controlled for in the analysis. The statistical analysis will be performed using SPSS.

Table 5

Descriptive Statistic Variables

Quantitative variables	Survey item	Categorical variables	Survey item	# of categories
Age	2	Nursing designation	1	2
Level of competence when caring for PWUS	19	Gender	3	Open field, to be determined
		Level of education	4	3
		Internationally trained status	5	2
		Religion	6	Open field, to be determined
		Household income	7	6
		Patient care area	8	9
		Employment status	9	3
		Shift most often worked	10	4
		Level of experience as a nurse	11	5
		Level of experience on current patient care unit	12	5
		Amount of overtime in last 3 months	13	6
		Amount of missed work in last 3 months	14	4
		Patient load on days	15	5
		Patient load on nights	16	5
		Hours of education/training in nursing career	17	5
		Hours of education/training in undergraduate nursing program	18	5

Discussion

This study will be the first to examine if workload, burnout, adverse childhood experiences, and social desirability are associated with nurses' negative attitudes toward PWUS in the hospital setting. Based on the current evidence available, minimal assumptions can be made outside of the documented correlation between nurses' attitudes and adverse childhood experiences (no other data are available on workload, burnout, and social desirability). However, I hypothesis that high workload and high levels of burnout are naturally associated with negative attitudes. If nurses are in a more perplexed state, they are more apt to view patients, especially PWUS, with a more negative attitude. I do not think that social desirability will be reported as high in the survey. I contend that nurses' negative attitudes come from their own internal beliefs, past experiences, and societal influence, and that they may be exacerbated by a stressful work

environment. The findings may be very beneficial in helping health care organizations to implement targeted interventions to address nurses' attitudes.

Limitations

The limitations of the study were described in the Overall Methods section in Chapter 2.

Chapter 5: Study 3: Nurses on the Frontline: The Need for Organizational Backing in Substance

Use Care

Introduction

Study 3 will be guided by one RQ: What are the facilitators and barriers that nurses

experience when caring for PWUS in the hospital setting?

Canadian substance use rates continue to rise rapidly, with an increase in associated

harms following the COVID-19 pandemic (Ledlie et al., 2024; Statistics Canada, 2024).

Substance use occurs regardless of the setting. Patients who use substances (PWUS) may choose

to continue their substance use while in hospital, with many PWUS being admitted to address

health challenges related to their substance use: cellulitis, abscesses, endocarditis, deep vein

thrombosis, and overdose (Monks et al., 2013). Patients themselves have confirmed that their

substance use continues while they are in the hospital setting (Grewal et al., 2015; McNeil et al.,

2014), and Trowbridge et al. (2017) suggested that approximately 15% of hospitalized patients

had substance use challenges. Grewal et al. (2015), who studied a sample of 1,028 people who

were using drugs and had had at least one hospitalization, reported that more than 50% of their

participants self-injected cocaine and/or heroin daily while in hospital.

To conceal their substance use from health care providers in relation to the abstinence-

based approach preferred by health care organizations, PWUS can resort to high-risk behaviours

that may lead to unfavourable health outcomes. Researchers have identified such high-risk

behaviours as including, but not being limited to, injecting with syringes of unknown origin,

sharing needles or injection equipment, using contaminated drugs or fillers, and using tap water

or saliva in drug preparation (McNeil et al., 2014; Sharma et al., 2017; Strike et al., 2020). These

unsafe behaviours continue occur, despite patients' admission to a setting where supplies and resources exist to improve patient safety.

Nurses are the only health care professionals routinely delivering care every hour of every day of the year, making them the consistent contact point for all patients. As such, nurses are the professionals who most prominently address and manage the care of PWUS in the hospital setting. However, in previous studies, nurses have reported lacking organizational support to continue this care effectively and efficiently (Hyshka et al., 2019; Kiepek et al., 2021; Menard-Kocik & Caine, 2021). The absence of organizational support has been made obvious in nonexistent policies and/or procedures (Ford et al., 2008; Hyshka et al., 2019; Kiepek et al., 2021; Menard-Kocik & Caine, 2021), despite nurses' pleas for immediate assistance and action to manage the care of PWUS in the hospital setting (Horner et al., 2019; Menard-Kocik & Caine, 2021). In the absence of organizational policies and procedures, an uncertain work environment is created: Nurses must develop unofficial policies and/or procedures based on their individual values and beliefs (Strike et al., 2020). These values and beliefs have a tendency to support an abstinence-based approach to substance use.

Nurses sometimes must resort to using unsatisfactory strategies to manage uncomfortable situations, such as increasing patient monitoring (i.e., presence of security; McNeil et al., 2014); threatening patients with discharge if they do comply (Goodman et al., 2017; McNeil et al., 2014); confiscating their possessions (e.g., drugs, paraphernalia, and/or belongings; Pauly et al., 2015; Strike et al., 2020); and denying or terminating associated medications and care plans (McNeil et al., 2014; Monks et al., 2013). Nurses also may resort to screening patients' visitors and refusing patients the right to leave their hospital rooms, resulting in the restriction of basic human rights (Kiepek et al., 2021). These interactions consequently result in PWUS leaving prior

to completing their required therapy (i.e., against medical advice), thus missing opportunities for nurses to address their health concerns appropriately (McNeil et al., 2014; Monks et al., 2013; Strike et al., 2020; Turpel-Lafond, 2020). People who leave the hospital against medical advice are less likely to attend follow-up appointments, are more likely to leave prior to the completion of therapy in future visits, are more likely to be readmitted to hospital within 2 weeks, and are twice as likely to die (Allen et al., 2020; Hyshka et al., 2019).

There is a need for health care organizations to take immediate action to support nursing staff in evidence-based, patient-informed decision making by developing appropriate policies and procedures (Horner et al., 2019; Menard-Kocik & Caine, 2021). This action will provide nurses with direction and structure in the hope that the current abstinence-based approach will be reconsidered. Patients deserve to have their autonomy honoured, and they are entitled to equitable health care despite their lifestyle choices (Kiepek et al., 2021). Therefore, the purpose of my proposed study is to examine the facilitators and barriers facing nurses as they care for PWUS in the hospital setting in order to inform organizational policies and procedures.

Methods

The methodology was described in Chapter 2.

Data Analysis

I will download the open-ended responses from the survey from REDCap and import them into NVivo v.12 for analysis. A thematic content analysis will be completed to assess the data using Braun and Clarke's (2006) six-phase approach. In Phase 1, two researcher assistants and I will become familiar with the data by reading the survey responses and discussing the overall findings. In Phase 2, we will chose 10 survey responses to examine. We will go through each response line by line before starting to generate initial themes and potential codes for the

data. This activity will result in the development of a draft codebook. Then we will pilot the draft codebook in Phases 3 and 4 on an additional 10 survey responses. If any discrepancies arise in the coding, we will discuss them as a team and take any appropriate actions (e.g., rectify discrepancies, create new codes). After the piloting and discussion, we will have our final codebook, which will be used in Phase 5 to analyze the remaining survey responses. In Phase 6, we will synthesize what we found, create a story of the data, and present it in the Results section of the study.

Discussion

The purpose of this study is to identify the facilitators and barriers that nurses experience when caring for PWUS in the hospital setting. I anticipate that two main themes will emerge from this study: (a) a lack of organizational policies and procedures, and (b) a lack of education, which aligns with current published literature on this topic. I also will offer recommendations regarding ways that health care organizations can help to support nurses who care for PWUS by strategically tailoring their efforts in terms of the development of new policies and procedures. The findings may contribute to the body of literature by filling in gaps in the research. The findings also may provide direction for future qualitative researchers to collect their data in different ways (e.g., semistructured interviews or focus groups) to facilitate the emergence of themes.

Limitations

In addition to the limitations listed in Chapter 2, there is the potential that the respondents may not provide in-depth responses to the three open-ended questions being asked or that the responses will vary widely in terms of content and clarity. Further, the respondents may also not provide all necessary data or overlook aspects of some questions limiting the completeness of the

data collected. As the data are collected, I will monitor the number and robustness of the responses to ensure that in-depth data are being captured. As the study progresses, if there are concerns around what the extent and quality of what is obtained, an amendment to the REB will be submitted to request the inclusion of semistructured interviews to answer the RQs.

Chapter 6: Concluding Remarks and Next Steps

The results of the proposed study may contribute to the extant literature by addressing gaps in the research on nurses' attitudes toward PWUS in the hospital setting. The study will be guided by three RQs:

1. Does changing DDPPQ and AAPPQ language to a person-centred focus affect their psychometric properties?

2. Are workload, burnout, adverse childhood experiences and social desirability associated with nurses' attitudes toward PWUS in the hospital setting?

3. What are the facilitators and barriers that nurses experience when caring for PWUS in the hospital setting?

This study of nurses' attitudes toward PWUS warrants attention because the findings may highlight ways to improve the care currently being provided by health care organizations to PWUS, the experiences of nurses working in these settings, the quality of care patients receive, their care outcomes, and the overall efficiency of the health care system. The findings may contribute to the extant literature and offer suggestions and guidance to future researchers. The target populations who may benefit from this work and the potential impacts of their studies are outlined in Table 6.

Table 6

Proposed Studies, Target Populations, and Their Potential Impacts

Study no.	Target populations	Potential impacts
1: A Psychometric Evaluation of a Person-Centred Drug and Drug Problems & Alcohol and Alcohol Problems Questionnaire	Researchers	-Psychometric properties on both the PC-AAPPQ and PC-DDPPQ -Contemporary tool of measurement for future studies -Increase awareness in person-centred language and aid in decreasing stigma toward PWUS in the research community
2: Moving Beyond Nurse Hatchet: Exploring Factors Associated with Nurses' Attitudes towards PWUS in the Hospital Setting	Health care organizations	-Current state of nurses' attitudes towards PWUS -Descriptive statistics and bivariate analysis can provide insight on target populations of nurses needing more education and/or intervention focus -Awareness on factors contributing to nurses' attitudes toward PWUS -Points of consideration to focus education and/or intervention (e.g., measures to decrease workload or burnout if associations are found) -Education/increasing awareness of social desirability if high levels are found -Understanding of nurses and their past experiences and it shapes their care (ACEs) -Provide insight to shape organizational change through policy and/or procedures to support nurses caring for PWUS -Contribute to the body of literature and provide direction for future studies -Bring awareness to the current state of nurses' attitudes and factors that may contribute to such -Empower the nurses to advocate for organizational change
	Researchers	
	Nurses	-All considerations and interventions established aid in providing the patient with a better hospital experience and aid in the
	Patients	provision of their care

Study no.	Target populations	Potential impacts
3: Nurses on the Frontline: The Need for Organizational Backing in Substance Use Care	Health care organizations	-Awareness on the facilitators and barriers nurses experience when providing care to PWUS -Provide insight front the frontline to create targeted interventions to change the current state based on the findings -Facilitate the creation of new or revision of current policies to support nursing staff -Contribute to the body of literature and provide direction for future studies
	Researchers	-Validate their challenges when caring for this patient population -Provide concrete information to be used as an avenue of advocacy for change
	Nurses	-All considerations and interventions established aid in providing the patient with a better hospital experience and aid in the provision of their care -Establish, repair, increase therapeutic alliance between patients and the nurses caring for them
	Patients	

Table 7 shows details of the proposed time line to complete the study.

Table 7

Proposed Time Line of Dissertation Completion

Date	Task	Associated information
2024		
Aug. 26	Submit to REB	
Sept. 23	Study begins! Distribute electronic survey	Sept. 25 & 28 in-person recruitment events to be held
Oct. 2	Half-way reminder email	Oct. 3 in-person recruitment event
Oct. 7	Final survey reminder and closure of study period	Oct. 2, in-person recruitment event
Oct. 8-28	Download data from REDCap and clean data	
Oct. 28-Dec. 15	Upload to SPSS and analyze	
Dec. 16, 2024-Feb. 9, 2025	Write results and discussion sections of the three manuscripts	
2025		
Feb. 10-16	Submit three manuscripts for publication	Potential journals for submission: Study 1: *Drug and Alcohol Dependence* Study 2: *Journal of Clinical Nursing* Study 3: *Policy, Politics and Nursing practice*
Feb. 17-Apr. 24	Write integrated discussion and conclusion of dissertation	

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Appendix A: Electronic Survey

Part I: Demographic Data

Please answer the following demographic questions related to yourself and your nursing career.

Only check one answer for each question. These questions are being asked to determine if any

participant characteristics influence nurses' attitudes toward their PWUS in the hospital setting.

1. Nursing designation:

   ☐ 1. Registered Practical Nurse (RPN)

   ☐ 2. Registered Nurse (RN)

2. How old are you (years)? _____

3. What is your gender? _____

4. What is your highest level of education?

   ☐ 1. Diploma

   ☐ 2. Undergraduate degree

   ☐ 3. Graduate degree (e.g., Master's degree)

5. Are you an internationally trained nurse (i.e., IEN or SPEP)?

   ☐ 1. Yes

   ☐ 2. No

6. What is your present religion, if any? _____

7. Which category best describes your yearly household income before taxes?

   ☐ 1. Under $50,000

   ☐ 2. $50,000-$80,999

   ☐ 2. $81,000-$110,999

   ☐ 3. $111,000-$130,999

☐ 4. $131,000-$160,999

☐ 5. $161,000-$190,999

☐ 6. $191,000 or more

8. What patient care area do you primarily work in?

☐ 1. Critical Care Services (i.e., ICU or ED)

☐ 2. Medical/Surgical Unit (i.e., 1A/2A/2B/2C, 3A,3B,3C,3CNeuro)

☐ 3. Mental Health In-Patient Services (i.e., Adult Mental Health, Forensic, MHAT, CAMHU)

☐ 4. Out-Patient Services (i.e., Hemodialysis, Cardiac Cath Lab, Ambulatory Care, Cancer Centre/Radiation Therapy, DI Recovery)

☐ 5. Mental Health Out-Patient Services (i.e., Forensic Outpatient, ACT, CAST, BITT)

☐ 6. Perioperative Services (i.e., Operating Room, PACU, Endoscopy, Surgical Daycare, Preadmission Clinic)

☐ 7. Women and Children Services (i.e., Labour and Delivery, Maternal Newborn, Pediatrics, Pediatric Outpatient, NICU, Maternity Centre)

☐ 8. Transitional Care Unit

☐ 9. Other

9. What is your employment status? Check all that apply.

☐ 1. Full-time

☐ 2. Part-time

☐ 3. Casual

10. What shift do you work most often?

☐ 1. 8-hour shift

☐ 2. 10-hour shift

☐ 3. 12-hour shift

☐ 4. 8-hour and 12-hour rotating shift

11. Experience in your role:

☐ 1. Up to 6 months

☐ 2. More than 6 months to 2 years

☐ 3. More than 2 years to 5 years

☐ 4. More than 5 years to 10 years

☐ 5. Greater than 10 years

12. Experience on your current patient care unit:

☐ 1. Up to 6 months

☐ 2. More than 6 months to 2 years

☐ 3. More than 2 years to 5 years

☐ 4. More than 5 years to 10 years

☐ 5. More than 10 years

13. In the past 3 months, how many hours of overtime did you work:

☐ 1. No overtime

☐ 2. Between 1 and 12 hours

☐ 3. More than 12 hours

☐ 4. More than 24 hours

☐ 5. More than 36 hours

☐ 6. More than 37 hours

14. In the past 3 months, how many shifts did you miss work due to illness, injury, extra rest etc. (exclusive of approved days off?):

☐ 1. None

☐ 2. 1-3 shifts

☐ 3. 4-7 shifts

☐ 4. More than 7 shifts

15. On the current or last *day* shift you worked, how many patients did you care for?

☐ 1. Between 1-2 patients

☐ 2. Between 3-5 patients

☐ 3. Between 6-8 patients

☐ 4. Between 9-11 patients

☐ 5. More than 12 patients

16. On the current or last *night* shift you worked, how many patients did you care for?

☐ 1. Between 1-2 patients

☐ 2. Between 3-5 patients

☐ 3. Between 6-8 patients

☐ 4. Between 9-11 patients

☐ 5. More than 12 patients

17. How many hours of education/training have you received on substance use and/or addictions in your nursing career?

☐ 1. None

☐ 2. Between 1-4 hours

☐ 3. Between 5-8 hours

☐ 4. Between 9-12 hours

☐ 5. More than 13 or more hours

18. From your recollection, how many hours of education/training did you received in your undergraduate nursing program on substance use and/or addictions?

☐ 1. None

☐ 2. Between 1-4 hours

☐ 3. Between 5-8 hours

☐ 4. Between 8-12 hours

☐ 5. More than 13 or more hours

19. On a scale from 1-10 (1 being not confident and 10 being highly confident), rate how competent you feel caring PWUS in the hospital setting.

This part of survey is going to ask you questions around caring for people who drink alcohol and your interactions with them in the hospital setting. Please rate the following questions from 1-5, with 1-2 being *strongly agree*, 3 being *neutral*, and 4-5 being *strongly disagree*.

Part II: Study Measures

This part of the survey is going to ask you questions about caring for people who drink alcohol and your interactions with them in the hospital setting. Please rate the following questions from 1 to 5 with, 1-2 being *strongly agree*, 3 being *neutral*, and 4-5 being *strongly disagree*.

Version 1: Original AAPPQ

		Strongly agree		Neutral	Strongly disagree	
1	I feel I have a working knowledge of alcohol and alcohol-related problems.	1	2	3	4	5
2	I feel I know enough about the causes of drinking problems to carry out my role when working with drinkers.	1	2	3	4	5
3	I feel I know enough about alcohol dependence syndrome to carry out my role when working drinkers.	1	2	3	4	5
4	I feel I know enough about the psychological effects of alcohol to carry out my role when working with drinkers.	1	2	3	4	5
5	I feel I know enough about the factors that put people at risk of developing alcohol-related problems to carry out my role while working with drinkers.	1	2	3	4	5
6	I feel I know how to counsel drinkers over the long term.	1	2	3	4	5
7	I feel I can appropriately advise my patients/clients about their drinking and its effects.	1	2	3	4	5
8	I feel I have a clear idea of my responsibilities in helping drinkers.	1	2	3	4	5
9	I feel I have the right to ask a patient for any information relevant to their drinking when necessary.	1	2	3	4	5
10	I feel that my patients believe I have the right to ask them questions about drinking when necessary.	1	2	3	4	5
11	I feel I have the right to ask a patient for any information relevant to their drinking problems.	1	2	3	4	5
12	If I felt the need when working with drinkers, I could easily find someone with whom I could discuss any personal difficulties that I might encounter.	1	2	3	4	5
13	If I felt the need when working with drinkers, I could easily find someone who would help me clarify my professional responsibilities.	1	2	3	4	5
14	If I felt the need, I could easily find someone who would be able to help me formulate the best approach to a drinker.	1	2	3	4	5
15	I am interested in the nature of alcohol-related problems and the responses that can be made to them.	1	2	3	4	5
16	I want to work with drinkers.	1	2	3	4	5
17	I feel that the best I can personally offer drinkers is a referral to someone else.	1	2	3	4	5
18	I feel that there is little I can do to help drinkers.	1	2	3	4	5
19	Pessimism is the most realistic attitude to take toward drinkers.	1	2	3	4	5
20	I feel I am able to work with drinkers as well as others.	1	2	3	4	5
21	All in all, I am inclined to feel I am a failure with drinkers.	1	2	3	4	5
22	I wish I could have more respect for the way I work with drinkers.	1	2	3	4	5
23	I feel I do not have much to be proud of when working with drinkers.	1	2	3	4	5
24	At times, I feel I am no good at all with drinkers.	1	2	3	4	5
25	On the whole, I am satisfied with the way I work with drinkers.	1	2	3	4	5
26	I often feel uncomfortable when working with drinkers.	1	2	3	4	5
27	In general, one can get satisfaction from working with drinkers.	1	2	3	4	5
28	In general, it is rewarding to work with drinkers.	1	2	3	4	5
29	In general, I feel I can understand drinkers.	1	2	3	4	5
30	In general, I like drinkers.	1	2	3	4	5

Version 2: PC-AAPPQ

		Strongly agree		Neutral	Strongly disagree	
1	I feel I have a working knowledge of alcohol and alcohol-related problems.	1	2	3	4	5
2	I feel I know enough about the causes of drinking problems to carry out my role when working with individuals who drink alcohol.	1	2	3	4	5
3	I feel I know enough about alcohol use disorder to carry out my role when working with individuals who drink alcohol.	1	2	3	4	5
4	I feel I know enough about the psychological effects of alcohol to carry out my role when working with individuals who drink alcohol.	1	2	3	4	5
5	I feel I know enough about the factors that put people at risk of developing alcohol-related problems to carry out my role while working with individuals who drink alcohol.	1	2	3	4	5
6	I feel I know how to counsel individuals who drink alcohol over the long term.	1	2	3	4	5
7	I feel I can appropriately advise my patients/clients about their alcohol use and its effects.	1	2	3	4	5
8	I feel I have a clear idea of my responsibilities in helping individuals who drink alcohol.	1	2	3	4	5
9	I feel I have the right to ask a patient for any information relevant to their alcohol use when necessary.	1	2	3	4	5
10	I feel that my patients believe I have the right to ask them questions about drinking when necessary.	1	2	3	4	5
11	I feel I have the right to ask a patient for any information relevant to their alcohol use problems.	1	2	3	4	5
12	If I felt the need when working with individuals who drink alcohol, I could easily find someone with whom I could discuss any personal difficulties that I might encounter.	1	2	3	4	5
13	If I felt the need when working with individuals who drink alcohol, I could easily find someone who would help me clarify my professional responsibilities.	1	2	3	4	5
14	If I felt the need, I could easily find someone who would be able to help me formulate the best approach to individuals who drink alcohol.	1	2	3	4	5
15	I am interested in the nature of alcohol-related problems and the responses that can be made to them.	1	2	3	4	5
16	I want to work with individuals who drink alcohol.	1	2	3	4	5
17	I feel that the best I can personally offer individuals who drink alcohol is a referral to someone else.	1	2	3	4	5
18	I feel that there is little I can do to help individuals who drink alcohol.	1	2	3	4	5
19	Pessimism is the most realistic attitude to take toward individuals who drink alcohol.	1	2	3	4	5
20	I feel I am able to work with individuals who drink alcohol as well as others.	1	2	3	4	5
21	All in all, I am inclined to feel I am a failure with individuals who drink alcohol.	1	2	3	4	5
22	I wish I could have more respect for the way I work with individuals who drink alcohol.	1	2	3	4	5
23	I feel I do not have much to be proud of when working with individuals who drink alcohol.	1	2	3	4	5

24	At times, I feel I am no good at all with individuals who drink alcohol.	1	2	3	4	5
25	On the whole, I am satisfied with the way I work with individuals who drink alcohol.	1	2	3	4	5
26	I often feel uncomfortable when working with individuals who drink alcohol.	1	2	3	4	5
27	In general, one can get satisfaction from working with individuals who drink alcohol.	1	2	3	4	5
28	In general, it is rewarding to work with individuals who drink alcohol.	1	2	3	4	5
29	In general, I feel I can understand individuals who drink alcohol.	1	2	3	4	5
30	In general, I like individuals who drink alcohol.	1	2	3	4	5

This survey is going to ask you questions about caring for people who use nonprescription drugs (e.g., cocaine/crack, heroin, methamphetamine, and Oxycodone) in the hospital setting. Please rate the following questions from 1 to 5, with,1-2 being *strongly agree*, 3 being *neutral*, and 4-5 being *strongly disagree*.

Version 1: Original DDPPQ

		Strongly agree		Neutral	Strongly disagree	
1	I feel I have a working knowledge of drugs and drug-related problems.	1	2	3	4	5
2	I feel I know enough about the causes of drug problems to carry out my role when working with drug users.	1	2	3	4	5
3	I feel I know enough about the physical effects of drug use to carry out my role when working with drug users.	1	2	3	4	5
4	I feel I know enough about the psychological effects of drugs to carry out my role when working with drug users.	1	2	3	4	5
5	I feel I know enough about the factors that put people at risk of developing drug problems to carry out my role while working with drug users.	1	2	3	4	5
6	I feel I know how to counsel drug users over the long term.	1	2	3	4	5
7	I feel I can appropriately advise my patients/clients about drugs and their effects.	1	2	3	4	5
8	I feel I have the right to ask patients/clients questions about their drug use when necessary.	1	2	3	4	5
9	I feel I have the right to ask a patient for any information relevant to their drug problems.	1	2	3	4	5
10	If I felt the need when working with drug users, I could easily find someone with whom I could discuss any personal difficulties that I might encounter.	1	2	3	4	5
11	If I felt the need when working with drug users, I could easily find someone who would help me clarify my professional responsibilities.	1	2	3	4	5
12	If I felt the need, I could easily find someone who would be able to help me formulate the best approach to a drug user.	1	2	3	4	5

13	I feel there is little I can do to help drug users.	1	2	3	4	5
14	I feel I am able to work with drug users as well as other client groups.	1	2	3	4	5
15	All in all, I am inclined to feel I am a failure with drug users.	1	2	3	4	5
16	In general, I have less respect for drug users than for most other patients/clients I work with.	1	2	3	4	5
17	I often feel uncomfortable when working with drug users.	1	2	3	4	5
18	In general, one can get satisfaction from working with drug users.	1	2	3	4	5
19	In general, it is rewarding to work with drug users.	1	2	3	4	5
20	In general, I feel I can understand drug users.	1	2	3	4	5

Version 2: PC-DDPPQ

		Strongly agree		Neutral	Strongly disagree	
1	I feel I have a working knowledge of drugs and drug- related problems.	1	2	3	4	5
2	I feel I know enough about the causes of drug problems to carry out my role when working with individuals who use drugs.	1	2	3	4	5
3	I feel I know enough about the physical effects of drug use to carry out my role when working with individuals who use drugs.	1	2	3	4	5
4	I feel I know enough about the psychological effects of drugs to carry out my role when working with individuals who use drugs.	1	2	3	4	5
5	I feel I know enough about the factors that put people at risk of developing drug problems to carry out my role while working with individuals who use drugs.	1	2	3	4	5
6	I feel I know how to counsel individuals who use drugs over the long term.	1	2	3	4	5
7	I feel I can appropriately advise my patients/clients about drugs and their effects.	1	2	3	4	5
8	I feel I have the right to ask patients/clients questions about their drug use when necessary.	1	2	3	4	5
9	I feel I have the right to ask a patient for any information relevant to their drug problems.	1	2	3	4	5
10	If I felt the need when working with individuals who use drugs, I could easily find someone with whom I could discuss any personal difficulties that I might encounter.	1	2	3	4	5
11	If I felt the need when working with individuals who use drugs, I could easily find someone who would help me clarify my professional responsibilities.	1	2	3	4	5
12	If I felt the need, I could easily find someone who would be able to help me formulate the best approach to an individuals who use drugs.	1	2	3	4	5
13	I feel there is little I can do to help individuals who use drugs.	1	2	3	4	5
14	I feel I am able to work with individuals who use drugs as well as other client groups.	1	2	3	4	5
15	All in all, I am inclined to feel I am a failure with individuals who use drugs.	1	2	3	4	5
16	In general, I have less respect for individuals who use drugs than for most other patients/clients I work with.	1	2	3	4	5
17	I often feel uncomfortable when working with individuals who use drugs.	1	2	3	4	5

18	In general, one can get satisfaction from working with individuals who use drugs.	1	2	3	4	5
19	In general, it is rewarding to work with individuals who use drugs.	1	2	3	4	5
20	In general, I feel I can understand individuals who use drugs.	1	2	3	4	5

When you think of patients that you care for who use substances in the hospital setting (i.e., drugs or alcohol), please answer the following:

1. Do you currently feel supported by the organization in caring for PWUS while admitted to the hospital? What support do you feel is the most beneficial to help you care for this patient population?

2. When caring for PWUS while in the hospital, what are the barriers that you face as a nurse to deliver quality care?

3. What recommendations do you have for the organization to help support you in caring for this patient population?

The next set of questions pertain to you working as a nurse in the hospital setting. To the best of your knowledge, how frequently are the following elements of nursing care missed by nursing staff, including you, on your unit? Check only one box for each item.

	Always missed	Frequently missed	Occasionally missed	Rarely missed	Never missed
1. Ambulation 3 times a day or as ordered					
2. Turning patients every 2 hours					
3. Feeding patients when the food is still warm					
4. Setting up meals for patients who feed themselves					
5. Medications administered within 30 minutes before or after the scheduled time					
6. Vital signs assessed as ordered					
7. Monitoring intake/output					
8. Full documentation of all necessary data					
9. Patient teaching about illness, tests, and diagnostic studies					
10. Emotional support to patient and/or family					
11. Patient bathing/skin care					
12. Mouth care					
13. Hand washing					
14. Patient discharge planning and teaching					

15. Bedside glucose monitoring as ordered				
16. Patient assessments performed each shift				
17. Focused reassessments according to patient condition				
18. IV/Central line site care and assessments according to hospital policy				
19. Response to call bell or patient requests is initiated within 5 minutes				
20. PRN medication requests acted on within 15 minutes				
21. Assess effectiveness of medications				
22. Attend interdisciplinary care rounds whenever held				
23. Assist with toileting needs within 5 minutes of request				
24. Skin/Wound care				

Thinking about the missed nursing care on your unit by all of the staff, as you indicated above,

indicate the reasons nursing care is missed on your unit. Check only one box for each.

	Significant reason	Moderate reason	Minor reason	Not a reason for missed care
1. Inadequate number of nursing staff				
2. Urgent patient situations (i.e., patient's condition is worsening)				
3. Unexpected rise in patient volume and/or acuity on the unit				
4. Inadequate number of assistive and/or clerical personnel (e.g., PSW, helping hands, ward clerk, etc.)				
5. Unbalanced patient assignments				
6. Medications not available when needed				
7. Inadequate hand-off from previous shift or sending unit				
8. Other departments did not provide the care needed (i.e., PT did not ambulate)				
9. Supplies/Equipment not available properly when needed				
10. Supplies/Equipment not functioning properly when needed				
11. Lack of back-up support from team members				
12. Tension or communication breakdowns with other ancillary/support departments				
13. Tension or communication breakdowns with nursing team				
14. Tension or communication breakdowns with the medical staff				
15. Nursing assistant did not communicate the care was provided (e.g., PSW, helping hands)				
16. Caregiver off unit or unavailable				
17. Heavy admission and discharge activity				

The next set of questions are going to pertain to you as a nurse and your job-related experiences.

Please rate the following questions from 0 to 6, with 0 = *never*, 1= *a few times a year*, 2 = *once a month or less*, 3 = *a few times a month*, 4 = *once a week*, 5 = *a few times a week*, and 6 = *every day*.

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
1. I feel emotionally drained from my work.	0	1	2	3	4	5	6
2. I feel used up at the end of the workday.	0	1	2	3	4	5	6
3. I feel fatigued when I get up in the morning and have to face another day on the job.	0	1	2	3	4	5	6
4. I can easily understand how my patients feel about things.	0	1	2	3	4	5	6
5. I feel that I treat some patients as if they were impersonal objects.	0	1	2	3	4	5	6
6. Working with people all day is really a strain for me.	0	1	2	3	4	5	6
7. I deal very effectively with the problems of my patients.	0	1	2	3	4	5	6
8. I feel burned out from my work.	0	1	2	3	4	5	6
9. I feel I'm positively influencing other people's lives through my work.	0	1	2	3	4	5	6
10. I've become more callous towards people since I took this job.	0	1	2	3	4	5	6
11. I worry that this job is hardening me emotionally.	0	1	2	3	4	5	6
12. I feel very energetic.	0	1	2	3	4	5	6
13. I feel frustrated by my job.	0	1	2	3	4	5	6
14. I feel I'm working too hard on my job.	0	1	2	3	4	5	6
15. I don't really care what happens to some patients.	0	1	2	3	4	5	6
16. Working with people directly puts too much stress on me.	0	1	2	3	4	5	6
17. I can easily create a relaxed atmosphere with my patients.	0	1	2	3	4	5	6
18. I feel exhilarated after working closely with my patients.	0	1	2	3	4	5	6
19. I have accomplished many worthwhile things in this job.	0	1	2	3	4	5	6
20. I feel like I'm at the end of my rope.	0	1	2	3	4	5	6
21. In my work, I deal with emotional problems very calmly.	0	1	2	3	4	5	6

	22. I feel that patients blame me for some of their problems.	0	1	2	3	4	5	6

The second last questionnaire is going to ask you some questions about yourself. Please rate the following statements from 1 to 7, with 1-3 = *not true*, 4 = *somewhat true*, and 5-7 = *very true*.

		Not true			Somewhat true		Very true	
1	My first impressions of people usually turn out to be right.	1	2	3	4	5	6	7
2	It would be hard for me to break any of my bad habits.	1	2	3	4	5	6	7
3	I don't care to know what other people really think of me.	1	2	3	4	5	6	7
4	I have not always been honest with myself.	1	2	3	4	5	6	7
5	I always know why I like things.	1	2	3	4	5	6	7
6	When my emotions are aroused, it biases my thinking.	1	2	3	4	5	6	7
7	Once I've made up my mind, other people can seldom change my opinion.	1	2	3	4	5	6	7
8	I am not a safe driver when I exceed the speed limit.	1	2	3	4	5	6	7
9	I am fully in control of my own fate.	1	2	3	4	5	6	7
10	It's hard for me to shut off a disturbing thought.	1	2	3	4	5	6	7
11	I never regret my decisions.	1	2	3	4	5	6	7
12	I sometimes lose out on things because I can't make up my mind soon enough.	1	2	3	4	5	6	7
13	The reason I vote is because my vote can make a difference.	1	2	3	4	5	6	7
14	My parents were not always fair when they punished me.	1	2	3	4	5	6	7
15	I am a completely rational person.	1	2	3	4	5	6	7
16	I rarely appreciate criticism.	1	2	3	4	5	6	7
17	I am very confident of my judgements.	1	2	3	4	5	6	7
18	I have sometimes doubted my ability as a lover.	1	2	3	4	5	6	7
19	It's all right with me if some people happen to dislike me.	1	2	3	4	5	6	7
20	I don't always know the reasons why I do the things I do.	1	2	3	4	5	6	7
21	I sometimes tell lies if I have to.	1	2	3	4	5	6	7
22	I never cover up my mistakes.	1	2	3	4	5	6	7
23	There have been occasions when I have taken advantage of someone.	1	2	3	4	5	6	7
24	I never swear.	1	2	3	4	5	6	7
25	I sometimes try to get even rather than forgive and forget.	1	2	3	4	5	6	7
26	I always obey laws, even if I'm unlikely to get caught.	1	2	3	4	5	6	7
27	I have said something bad about a friend behind his or her back.	1	2	3	4	5	6	7
28	When I hear people talking privately, I avoid listening.	1	2	3	4	5	6	7

29	I have received too much change from a salesperson without telling him or her.	1	2	3	4	5	6	7
30	I always declare everything at customs.	1	2	3	4	5	6	7
31	When I was young, I sometimes stole things.	1	2	3	4	5	6	7
32	I have never dropped litter on the street.	1	2	3	4	5	6	7
33	I sometimes drive faster than the speed limit.	1	2	3	4	5	6	7
34	I never read sexy books or magazines.	1	2	3	4	5	6	7
35	I have done things that I don't tell other people about.	1	2	3	4	5	6	7
36	I never take things that don't belong to me.	1	2	3	4	5	6	7
37	I have taken sick leave from work or school, even though I wasn't really sick.	1	2	3	4	5	6	7
38	I have never damaged a library book or store merchandise without reporting it.	1	2	3	4	5	6	7
39	I have some pretty awful habits.	1	2	3	4	5	6	7
40	I don't gossip about other people's business.	1	2	3	4	5	6	7

The final part of the survey is going to ask you questions related to adverse childhood experiences before the age of 18. Please click "yes" or "no" if you have experience any of the following before the age of 18.

Question	Yes	No
Did your parents get divorced or separated?		
Did a household member go to prison?		
Did you live with anyone who used drugs or alcohol problematically?		
Did you experience neglect from a parent or adult in your household?		
Did you experience any form of abuse from a parent or adult in your household?		

Appendix B: Study Details

Nurses' Attitudes Toward PWUS in the Hospital Setting

Dear Potential Participant:

You are being asked to consider taking part in a research study. Taking part in this study is voluntary. Before you decide whether or not you would like to take part in this study, please read the below information carefully to understand what is involved. Your employment status will not be affected if you decide not to participate. You are being asked to participate in this study because you are a nurse at the Thunder Bay Regional Health Sciences Centre.

Purpose

The purpose of this study is to examine nurses' attitudes toward PWUS in the hospital setting and to explore potential factors that may be associated with nurses' attitudes toward PWUS. Additionally, to identify facilitators and barriers to caring for this patient population.

What is requested of me as a participant?

If you agree to participate in the study, you will follow the link or the QR below to a survey. This survey will take approximately 20-30 minutes to complete.

What are the risks and benefits?

There are no anticipated risks to participate in this research study. However, some of the questions asked may evoke an emotional response from you as the participant. If this does occur, you are asked to reach out to the Employee and Family Assistance Program at (807) 623-7677. In completing the survey, your response and feedback is completely anonymous and submitted electronically without identifying information to promote confidentiality. Responses to the study may benefit current and future nurses who care for PWUS in the hospital setting by providing health care organizations information on factors that contribute to nurses' attitudes, in addition,

facilitators and barriers to caring for this patient population. Health care organizations can use

this to improve policy and/or procedure and associated interventions.

How will my confidentiality be maintained?

The data is collected electronically via REDCap, which stores responses anonymously as per the

companies privacy policy.

Where will my data be stored?

Research data will be maintained in electronic format, in a private shared folder, on a password

protected hard drive in the primary research investigator's office at the TBRHSC. The data will

be kept for a minimum of 7 years after publication of the research, after which time it will be

destroyed

How can I receive a copy of the research results?

The intent of this research study is to publish the study findings in an academic journal. Once the

article is published, it will be circulated to all nurses working at the TBRHSC.

In addition, the results will be disseminated to the senior management team in a presentation

format. The researcher also plans to present the study findings at an associated academic

conference.

What if I want to withdraw from the study?

Due to the anonymous completion of the survey via REDCap, data cannot be withdrawn once

completed.

Researcher Contact Information:

Andrea Raynak, RN, PhD(c) (Principal Investigator)

(807) 684-7050

andrea.raynak@tbh.net

Research Ethics Board Review and Approval:

This research study has been reviewed and approved by the Thunder Bay Regional Health Sciences Centre Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Statton Eade at the Research Ethics Board at ext. 6359 or tbr_reo@tbh.net

Research Ethics Board Approval

October 03, 2024

Principal Investigator: Dr. Christopher Mushquash
Co-Investigators: Dr. Michel Bedard; Dr. Brianne Wood
Student: Andrea Raynak
Health and Behavioural Sciences\Psychology
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1

Dear Drs. Christopher Mushquash, Michel Bedard and Brianne Wood; and Andrea Raynak:

Re: Romeo File No: 1470672
Granting Agency: CIHR
Agency Reference #: 1469703

On behalf of the Research Ethics Board, I am pleased to grant ethical approval to your research project titled, **"Examining nurses attitudes towards patients who use substances in the hospital setting"**.

Ethics approval is valid until **October 3, 2025**. Please submit a Request for Renewal to the Office of Research Services via the Romeo Research Portal by September 3, 2025, if your research involving human participants will continue for longer than one year. A Final Report must be submitted promptly upon completion of the project. Access the Romeo Research Portal by logging into myInfo at:

https://erpwp.lakeheadu.ca/

During the course of the study, any modifications to the protocol or forms must not be initiated without prior written approval from the REB. You must promptly notify the REB of any adverse events that may occur.

Best wishes for a successful research project.

Sincerely,

Dr. Claudio Pousa
Chair, Research Ethics Board

/dg

![Lakehead University logo]

Dear Potential Participant:

You are being asked to consider taking part in a research study. Taking part in this study is voluntary. Before you decide whether or not you would like to take part in this study, please read the below information carefully to understand what is involved. Your employment status will not be affected if you decide not to participate. You are being asked to participate in this study because you are a nurse at the Thunder Bay Regional Health Sciences Centre.

Purpose

The purpose of this study is to examine nurses' attitudes toward PWUS in the hospital setting and to explore potential factors that may be associated with nurses' attitudes toward PWUS. Additionally, to identify facilitators and barriers to caring for this patient population. The data being collected in this survey will be used for a PhD dissertation.

What is requested of me as a participant?

If you agree to participate in the study, you will follow the link or the QR below to a survey. This survey will take approximately 20-30 minutes to complete. Please note, one section of the survey asks questions about personal history of adverse childhood experiences (e.g., abuse, neglect, household challenges). If you prefer not to answer, please skip these questions to proceed with the survey. Additionally, any other questions on the survey can be skipped at any time.

What are the risks and benefits?

There are no anticipated risks to participate in this research study. However, some of the questions asked may evoke an emotional response from you as the participant. If this does occur, you are asked to reach out to the Employee and Family Assistance Program at (807) 623-7677. In completing the survey, your response and feedback is completely anonymous and submitted electronically without identifying information to promote confidentiality. Responses to the study may benefit current and future nurses who care for PWUS in the hospital setting by providing health care organizations information on factors that contribute to nurses' attitudes, in addition, facilitators and barriers to caring for this patient population. Health care organizations can use this to improve policy and/or procedure and associated interventions.

How will my confidentiality be maintained?

The data is collected electronically via REDCap, which stores responses anonymously as per the companies privacy policy. However, due to collection and storage of data via an online tool, we cannot guarantee the full confidentiality and anonymity of your data. With your consent to participate, you are acknowledging this.

Where will my data be stored?

Research data will be maintained in electronic format, in a private shared folder, on a password protected hard drive in the principal investigator's office at Lakehead University. The data will be kept for a minimum of 7 years after publication of the research, after which time it will be destroyed.

What will my data be used for?

The data collected in this research will be used to address the purpose of the study listed above. Your data will be analyzed to help us better understand nurses attitudes toward patients who use substances, and the results may be published in academic journals or presented at professional conferences. Any data used for publication will be anonymized, ensuring that no personal identifiers are disclosed. Your participation is voluntary, and your data will only be used for the purposes outlined in this study. The principal investigator and the PhD student will have access to this data.

What if I want to withdraw from the study?

Due to the anonymous completion of the survey via REDCap, data cannot be withdrawn once completed.

How can I receive a copy of the research results?

The intent of this research study is to publish the study findings in an academic journal. Once the article is published, it will be circulated to all nurses working at the TBRHSC.

In addition, the results will be disseminated to the senior management team in a presentation format. The researcher also plans to present the study findings at an associated academic conference.

Research Ethics Board Review and Approval:

This research study has been reviewed and approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright at the Research Ethics Board at 807-343-8010 ext. 8283 or research@lakeheadu.ca.

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*Some questions in this study may evoke an emotional response from participants. If you experience any distress or discomfort, please consider reaching out to the Employee Family Assistance Plan at (807) 684-1874.

By clicking on the link or scanning the QR code below, you are consenting to participate in this study:

https://researchredcap.tbrhsc.net/surveys/?s=CRRYC8K4YKJ7TF79

If you have any further questions, please contact one of the research team members:

Dr. Christopher Mushquash, Ph.D. (Principal Investigator, PhD Supervisor)
Canada Research Chair in Indigenous Mental Health and Addiction
Professor, Department of Psychology, Lakehead University
Professor, Northern Ontario School of Medicine University
Psychologist, Dilico Anishinabek Family Care
Vice President Research
Chief Scientist, Thunder Bay Regional Health Research Institute
Thunder Bay Regional Health Sciences Centre
Chris.mushquash@lakeheadu.ca

Andrea Raynak, RN, Ph.D. (c) (Co-Investigator, PhD Student)
Director, Nursing Practice
Thunder Bay Regional Health Sciences Centre
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Dr. Michel Bédard, Ph.D.
Professor, Health Sciences, Lakehead University
Mbedard@lakeheadu.ca

Dr. Brianne Wood, PhD

Associate Scientist
Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON, P7B 6V4
Centre for Social Accountability, NOSM University, Thunder Bay, ON, P7B 5E1
bwood@nosm.ca

Recruitment Emails & Associated Attachments

Recruitment Emails
Tuesday, October 15, 2024

From: Trina Metz
Sent: Tuesday, October 15, 2024 11:17 AM
Subject: Patients who use substances in the hospital: We want your thoughts! PLEASE PARTICIPATE!

Hello Nursing Staff,

We have an exciting opportunity for you to participate in a research project being conducted at the Hospital. This research team is looking to *examine nurses' attitudes toward patients who use substances in the hospital setting* and to explore potential factors that may be associated with nurses' attitudes toward this patient population. Additionally, we wish to identify the facilitators and barriers to caring for this patient population.

You are eligible to participate if;
  1. **You are a RN or RPN**
  2. **You are in a role that provides direct patient care.**

Attached is further information pertaining to the study.

https://researchredcap.tbrhsc.net/surveys/?s=CRRYC8K4YKJ7TF79

Thank you for your consideration,

Trina Metz
Administrative Assistant, Professional Practice
Thunder Bay Regional Health Sciences Centre
980 Oliver Road
Thunder Bay, ON P7B 6V4
Phone: (807) 684-6420
Email: trina.metz@tbh.net

From: Trina Metz <trina.metz@tbh.net>
Sent: Monday, October 28, 2024 10:09 AM
To: Trina Metz <Trina.Metz@tbh.net>
Subject: Reminder! - Patients who use substances in the hospital: We want your thoughts! PLEASE PARTICIPATE!

Hello Nursing Staff,

Reminder to please participate.

Thank you to those who have already completed the survey.

Thank you once again.

Trina Metz
Administrative Assistant, Professional Practice
Thunder Bay Regional Health Sciences Centre
980 Oliver Road
Thunder Bay, ON P7B 6V4
Phone: (807) 684-6420
Email: trina.metz@tbh.net

Monday November 4, 2024

Hello Nursing Staff,

Final Day to complete.

You are eligible to participate if;
1. **You are a RN or RPN**
2. **You are in a role that provides direct patient care.**

Attached is further information pertaining to the study.

https://researchredcap.tbrhsc.net/surveys/?s=CRRYC8K4YKJ7TF79

Thank you for your consideration,

Trina Metz
Administrative Assistant, Professional Practice
Thunder Bay Regional Health Sciences Centre
980 Oliver Road
Thunder Bay, ON P7B 6V4
Phone: (807) 684-6420
Email: trina.metz@tbh.net