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Provincial Opioid Addiction Treatment Support Program for Registered Nurse and Registered Psychiatric Nurse Prescribing Education and Training Pathway:

Second Evaluation

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Table of Contents

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Executive Summary

This report presents the analysis of three separate surveys to assess learner and preceptor perceptions of the Provincial Opioid Addiction Treatment Support Program (POATSP) for Registered Nurses (RN) and Registered Psychiatric Nurses (RPN) Nurse Prescribing Education and Training Pathway and Decision Support Tools (DST). The first data source was the POATSP RN RPN online course evaluation survey, required by all learners to obtain a certificate of completion. A targeted survey was also distributed to all RNs and RPNs that had completed the full education and training pathway to diagnose and treat opioid use disorder, and finally, a survey was send to the BC Centre on Substance Use (BCCSU) Opioid Agonist Treatment (OAT) preceptors that included questions about supporting RN and RPN OAT prescribing learners during their preceptorships.

Overall, learner perceptions of the POATSP RN RPN Education and Training Pathway remain positive. Of the learners that completed the POATSP RN RPN online course:

- 71.9% of respondents reported that they "*agreed*" or "*strongly agreed*" that the online course enabled them to meet the stated course learning objectives
- 73.5% of learners were "*fairly*" or "*very confident*" that the course prepared them for the expanded scope of practice activities
- 89.8% either "*agreed*" or "*strongly agreed*" with most aspects of course quality, such as course interactivity, usefulness, accessibility, credibility and ease of navigation, with an overall average agreement rating of 4.4/5

For the respondents of the nurse prescribing survey:

- There was strong rural and remote representation with 44.5% survey respondents reported practicing in rural or remote settings (population <40,000)
- 97.8% "*agreed*" or "*strongly agreed*" that the POATSP RN RPN Education and Training Pathway was accurate and up-to-date
- 93.3% reported being satisfied with the quality of the education and training pathway
- 24.5% felt that the online course was too long, that it had too much repetitive content (15.6%) and would benefit from more interactive or engaging content (11.1%)
- 77.8% felt that the workbook helped them apply new knowledge, and 68.9% felt that it was comprehensive, however, a small cluster of respondents hoped for a more comprehensive workbook (17.8%)
- 77.8% of nurse prescribers felt that their preceptor was an effective coach
- 73.3% felt that the preceptorship experience helped apply their knowledge within clinical settings and 64.4% of respondents felt that the preceptorship experience allowed them to participate in a variety of OAT visits
- 17.8% of participants that found that the preceptorship was too short and did not capture enough variety of OAT visits

Decision Support Tool feedback was fairly scant, however, 24.5% felt that nurse prescriber scope of practice could be clearer and that the DSTs needed to be more concise One of the most prominent themes that emerged were that nurses felt not having protected time to progress through the education and training was a barrier to completion (74.3% requested time and coverage for course completion,

63.6% requested time and coverage for workbook completion, and 54.5% requested time and coverage for preceptorship completion).

A large majority (86.7%) of participants expressed the intention to expand their practice to include buprenorphine extended-release (ER) injections if it became part of the scope of practice and they were authorized by their employer to prescribe this option. 64% of the respondents reported that they intended to expand their scope of practice to include prescribed safer supply (PSS) if this became part of the scope of practice for nurse prescribers and they were authorized by their employer to prescribe these options. Some reported concerns around prescribing safer supply options including the risk of diversion, lack of consistent prescribing practices within some shared care models or unique community contexts, and a lack of empirical evidence demonstrating the effectiveness of PSS.

Of preceptors surveyed, 69.7% “agreed” or “strongly agreed” that the RN and RPN learners they worked with were prepared for the preceptorship time. They also reported that RN and RPN prescribers may need more time and variety in their preceptorship to ensure competent entry to practice. Simulation technology was recommended to augment the preceptorship experience to support competency development

Overall, learner perceptions of the POATSP RN RPN Education and Training Pathway remain positive, with key areas for improvement centering on making the training pathway more accessible and streamlined to facilitate competency development as well as timely completion. Exploring ways to augment the training pathway, such as with supported simulation-based learning and optional learning supplements, may help provide further opportunities for learners to engage in a variety of OAT visit scenarios that may be difficult to capture during the formal preceptorship time.

1.0 Background

Approximately six people die every day in British Columbia (BC) due to toxic drug poisoning, making it the leading cause of premature death in the province[1]. In April 2016, a public health emergency was declared in BC because of the rising number of overdose deaths from the consumption of unregulated drugs[2]. This resulted in the widespread distribution of naloxone within communities and expansion of efforts to improve access to treatments for opioid use disorder, such as methadone and buprenorphine/naloxone[2]. In 2020, BC reported the highest rates of unregulated drug toxicity events and deaths associated with fentanyl than in any previous year[3]. Public health measures that were implemented to reduce the spread of the COVID-19 virus included the closure of non-essential health and social services and some harm reduction facilities, social distancing measures (which resulted in increased isolated drug consumption) and closed international borders (stopping the distribution of unregulated supplies into the country, leading to a worsening contamination of the unregulated stock at the time with higher concentrations of fentanyl to make supplies last longer)[4]. The increased risk of mortality among those that use unregulated drugs, while not accessing opioid use disorder (OUD) care, was 1.8 to 2.4 times higher than those that were accessing OUD care before 2020[5]. In 2020, the mortality rate surged for those not accessing OUD care, growing from 2.4 to 4.3 times higher than those accessing treatment[5]. These changes highlight the urgent need to improve access to opioid agonist treatment (OAT) to reduce toxic drug poisoning across the province.

In September 2020, a provincial health order (PHO) was issued that authorized registered nurses (RNs) and registered psychiatric nurses (RPNs), employed in British Columbia, to expand their scope of practice to include the provision of OUD care[6]. Under the PHO, authorized RNs and RPNs who underwent designated training would be able to diagnose a substance use condition or substance use disorder (SUD), including opioid use disorder. For those who had an SUD diagnosis, authorized RNs and RPNs would be able to order and interpret diagnostic tests, refer those with SUD to primary care and specialized services, and prescribe medications, including controlled drugs and substances, to manage or ameliorate the effects of substance use. The aim of the PHO was to reduce the number of toxic drug poisoning events and deaths by bolstering the healthcare provider workforce in BC trained and authorized to provide substance use care and treatment to people experiencing OUD, other substance use disorders. This is the first time that RNs and RPNs in BC have been authorized to prescribe medications. The implementation of this program occurred in phases that are continuing to expand to address provincial needs and gaps in the substance use system of care.

1. More than 1,000 lives lost to toxic unregulated drugs in first five months of 2023. BC Gov News Web Site. https://news.gov.bc.ca/releases/2023PSSG0052-000971#:~:text=Unregulated%20drug%20toxicity%20is%20now,accidents%20and%20natural%20disease%20combined. Accessed July 7th, 2023.
2. Opioid Overdose Emergency in BC. BC Centre for Disease Control Web Site. http://www.bccdc.ca/PublishingImages/opioid-overdose-emergency-snapshot.pdf. Accessed July 7th, 2023.
3. Illicit Drug Toxicity Deaths in BC. BC Gov Web Site. https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/illicit-drug.pdf. Accessed July 7th, 2023.
4. Foreman-Mackey, A., Xavier, J., Corser, J. *et al.* "*It's just a perfect storm*": Exploring the consequences of the COVID-19 pandemic on overdose risk in British Columbia from the perspectives of people who use substances. *BMC Public Health.* 2023;23, 640.
5. Pearce LA, Min JE, Piske M, Zhou H, Homayra F, Slaunwhite A, Irvine M, McGowan G, Nosyk B. (2020). Opioid agonist treatment and risk of mortality during opioid overdose public health emergency: population based retrospective cohort study. *BMJ,* 368.
6. New public health order to help slow BC's overdose crisis. BC Gov News Web Site. https://news.gov.bc.ca/releases/2020MMHA0051-001754. Accessed July 7th, 2023.

1.1 Education and Training Pathway

In the fall of 2020, the BC Centre on Substance Use (BCCSU), already training physicians and nurse practitioners (NPs) to prescribe OAT through the Provincial Opioid Addiction Treatment Support Program (POATSP), began to develop an RN and RPN specific education and training pathway to train nurses to diagnose and treat OUD with buprenorphine/naloxone. BCCSU also developed a decision support tool to guide care and differentiate the scope of practice of these nurses through points of consultation or referral. The training was launched for a pilot group of RNs and RPNs in February 2021 and was titled the Provincial Opioid Addiction Treatment Support Program: Registered Nurses and Registered Psychiatric Nurses (POATSP RN and RPN) Education and Training Program.

The education component for this program is provided through the POATSP RN and RPN online course. The POATSP RN RPN online course consists of 30 interactive self-paced learning modules. This course was supplemented with a self-paced workbook that contained practical clinical scenarios for learners to apply their knowledge. In addition to the course and workbook, RNs and RPNs complete an in-person preceptorship, to provide an opportunity for nurses to consolidate early learning, demonstrate their competency to diagnose and treat OUD, and receive support and mentorship from an experienced OAT prescriber, all while building their confidence to provide OUD care. After completion of the education and training pathway, successful nurses could become fully authorized to engage in this expanded scope of practice and receive a controlled drugs and substances (CDS) prescription pad.

After the initial pilot and phase 1 evaluation for RNs and RPNs trained to prescribe buprenorphine/naloxone, this expanded scope of practice was further extended to include limited prescribing of methadone and slow-release oral morphine (SROM) in November 2021. This extension of the scope of practice also came with further augmentation to the POATSP RN and RPN Education and Training Pathway, and the development of a second DST. The buprenorphine/naloxone only pathway has also since been retired as part of the phased implementation.

The current length of the preceptorship program varies depending on what level of training nurses are completing. Due to the phased implementation, there is an “upskilling” pathway for those that have completed previous training for buprenorphine/naloxone prescribing in addition to the standard education and training pathway to prescribe to prescribe all three oral OAT options. The aim of this evaluation was to assess the efficacy of the POATSP RN and RPN Education and Training Pathway to prepare RNs and RPNs to provide OUD care and prescribe buprenorphine/naloxone, methadone and slow-release oral morphine (SROM). The findings from this assessment highlight what learners appreciated about the POATSP RN and RPN Education and Training Pathway and identify opportunities for improving or creating new education and practice support tools that support this area of expanded scope of practice.

2.0 Methods

The evaluation of the POATSP RN and RPN Education and Training Pathway was completed using a mixed-methods approach. This evaluation focused on learner’s perceptions of the training program’s efficacy and educational outcomes for the POATSP RN and RPN Education and Training Pathway. An assessment of the POATSP RN and RPN online modules, workbook, preceptorship experience and decision support tools were completed by course participants, in addition, the preceptor group was also surveyed to around their experiences of supporting RN and RPN learners.

2.1 Sample and Data Collection

Data was collected from three sources. Upon the completion of the POATSP RN and RPN online course, learners were asked to finish an online survey to provide feedback on course content, quality and the overall learning experience. Data from the online course evaluation was filtered to include only RNs and RPNs located in BC that were employed by a health authority, and 121 responses were analyzed. Additionally, among the nurses that had completed the entire POATSP RN and RPN Education and Training Pathway and received authorization to diagnose and treat OUD, 45 completed an additional online survey to provide feedback on the overall education and training program. Finally, to gather a holistic view of the education program, feedback was collected from 45 BCCSU-approved preceptors that had supported RN and RPN learners during their OAT preceptorships.

2.1.i POATSP RN and RPN Online Course Survey

The POATSP RN and RPN Online Course Survey was created by the BCCSU and The University of British Columbia's Continuing Professional Development (UBC CPD) program within the Faculty of Medicine. The survey must be completed to obtain a completion certificate for the POATSP RN RPN online course. The purpose of the post-course survey was to gather feedback on the accessibility, interactivity, engagement, content, utility, application and impact of the POATSP RN RPN online course. For this evaluation, we reviewed data collected between April 1st, 2022 – March 31st, 2023, by RNs or RPNs located in BC and employed by a BC health authority.

The online course survey consisted of baseline demographics, course content evaluation and course specific learning objective assessment questions. This includes questions about work sites, years of experience, and health authority uptake trends. Additional evaluation indicators for OAT prescribing, prescriber confidence, and uptake of POATSP content were also included. The online course survey also included six qualitative questions aimed at assessing preceptorship preparedness, prior learning, barriers to OAT prescribing, motivating factors for initiating training pathways, and any experienced technical difficulties. The qualitative portion of the survey was optional.

2.1.ii RN and RPN Prescriber Survey

In addition to the POATSP RN and RPN Online Course Survey, an additional survey was created to capture feedback from RNs and RPNs that completed the entire POATSP RN and RPN Education and Training Pathway to authorize them to diagnose and treat OUD. All nurses that completed the training pathway, since it launched in 2021, were contacted by email and asked to anonymously complete a voluntary survey titled the *RN and RPN Prescriber Survey*. They were asked to provide feedback on each part of the education and training pathway and to describe the application of their training in clinical practice. There were 45 RNs and RPNs that completed the RN and RPN Prescriber Survey.

The RN and RPN Prescriber Survey consisted of 45 quantitative questions, including questions about baseline demographics, assessment of the content and quality of each part of the training program and decision support tools, areas for improving the training program, type and number of OAT prescriptions provided in clinical practice since the completion of the program, and barriers to prescribing OAT in the clinical setting.

These nurses were also asked to comment on additional support and resources needed to enable completion of the POATSP online modules, workbook and preceptorship program. Other open-ended qualitative questions inquired about supports or resources needed to establish role clarity for RN and

RPN OAT prescribing within interdisciplinary teams, to improve consultation or referral process to MDs and NPs, to improve coordination with pharmacy and laboratory services, to understand and apply organizational policies related to RN and RPN OAT prescribing, to documentation of care, to prescribe adjunct medications for precipitated withdrawal, to gain further competencies in substance use care, to feel valued in their role, and for future potential scope of practice expansion.

2.1.iii Preceptor Survey

A third survey was created to collect feedback from BCCSU-approved preceptors that provided in-person clinical training and mentorship to RNs and RPNs enrolled in the preceptorship program. Similar to the RN and RPN Prescriber Survey, 198 OAT preceptors in British Columbia were contacted via email and were asked to participate in an optional survey to provide their perspectives on the effectiveness of the preceptorship program in preparing nurses for expanded scope of practice, as well as areas where they felt improvements could be made.

The survey solicited demographic information, perceptions around RN and RPN preparedness upon entering and exiting the preceptorship program, level of support from the BCCSU for preceptors, areas for improving the preceptorship program, how RN and RPN OAT prescribers are improving access to OAT, and substance use services and barriers to RN and RPN OAT prescribing. There were 45 preceptors that completed this Preceptor Survey however, 33 preceptors supported RN and RPN learners while the others supported physician and nurse practitioner learners. For our analysis, we filtered the dataset to only include data from the preceptors that supported RN and RPN learners.

2.2 Quantitative and Qualitative Data Analysis

Quantitative analysis of survey results includes the reporting of frequencies and proportions for all categorical variables. Mean and standard deviations were reported for all continuous variables. One evaluator conducted the quantitative analysis in Microsoft Excel. Another evaluator reviewed the qualitative data in Microsoft Excel and categorized the data into 16 codes for the POATSP RN and RPN Online Course Survey, 15 codes for the Nurse Prescriber Survey and 4 codes for the Preceptor Survey (see Appendix A). An inductive reasoning approach was used to conduct a thematic analysis of the qualitative data.

3.0 Results

3.1 Quantitative Results

3.1.i POATSP RN and RPN Online Course Survey Results

Among health authority affiliated RNs and RPNs who completed the POATSP RN and RPN Online Course Survey, 70.8% of participants identified as RNs and 29.2% as RPNs. Regional representation was also evaluated via the POATSP RN and RPN Online Course Survey (see Table 1).

***Table 1**. Demographic results for POATSP RN and RPN Online Course Survey*

Demographic Characteristic	n (%)
Health Authority of Practice	
Vancouver Coastal Health Authority	40 (33.1%)
Interior Health Authority	30 (24.8%)
Northern Health Authority	22 (18.2%)
First Nations Health Authority	19 (15.7%)

Fraser Health Authority	19 (15.7%)
Provincial Health Services Authority	10 (8.3%)
Providence Health Care	4 (3.3%)
Not applicable	4 (3.3%)
Area of clinical practice	
Community clinic or health center	72 (59.5%)
Hospital	23 (19.0%)
Walk-in clinic	1 (0.8%)
Specialty clinic	4 (3.3%)
Corrections	6 (5.0%)
Outreach	2 (1.6%)
Nursing education	3 (2.4%)
Primary care	1 (0.8%)
Overdose prevention	1 (0.8%)
Withdrawal management	1 (0.8%)
Remote	2 (1.6%)
Step down community inpatient setting	1 (0.8%)
Not applicable/not in clinical practice	4 (3.3%)
Other	-

**Questions where survey participants can select or provide more than one answer*

In addition to providing demographic information, the POATSP RN and RPN Online Course Survey also asked participants a series of questions to self-assess their ability to apply course learning into practice. The responses to these questions were rated on a five-point scale, with five indicating a very high confidence with course learning objectives and one indicating a very low confidence with course learning objectives (see Table 2). On average, 71.9% of respondents reported that they "agreed" or "strongly agreed" that the online course enabled them to meet the stated learning objectives. This means that on average, participants felt confident that the POATSP RN and RPN Online Course addressed their learning needs and prepared them for practice, including the continued training pathway and scope expansion.

***Table 2**. Average confidence ratings for each of the POATSP RN and RPN learning objectives*

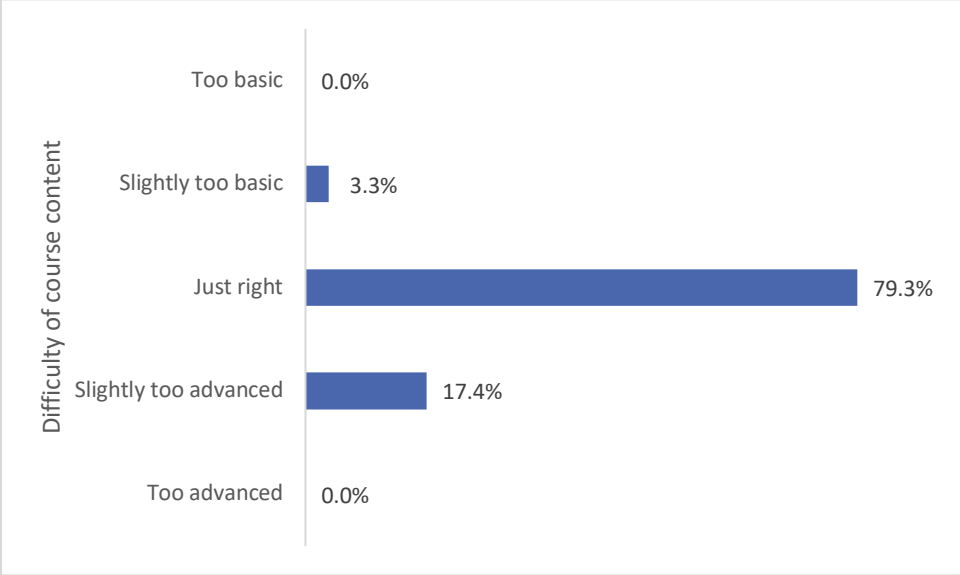
Learning Objective	Confidence Rating
Define and establish a diagnosis of opioid use disorder (OUD)	4.4
Evaluate a patient with OUD and create a patient-centered care plan	4.4
Provide safe treatment of OUD with opioid agonist treatment	4.3
Write a safe and clear prescription for opioid agonist treatment	4.2
Safely induct and maintain a patient on opioid agonist treatment	4.2
Engage a patient in comprehensive and continuing care	4.4
Provide trauma-informed care to people with OUD	4.6
Educate patients about harm reduction and integrate harm reduction provision into clinical care	4.6

Transition patients between certain modalities of pharmacotherapy for OUD	3.9
Provide opioid agonist treatment to patients in a variety of settings	4.1
Manage precipitated withdrawal	4.1
Apply the prescribing competencies to OUD care	4.2
Define the scope of practice for RNs and RPNs in OUD care	4.3
Identify the limits of the scope of practice for RNs and RPNs	4.3
Use the decision support tools to guide clinical decision-making related to OUD care	4.3
Overall Average	4.3

**Questions where survey participants can select or provide more than one answer*

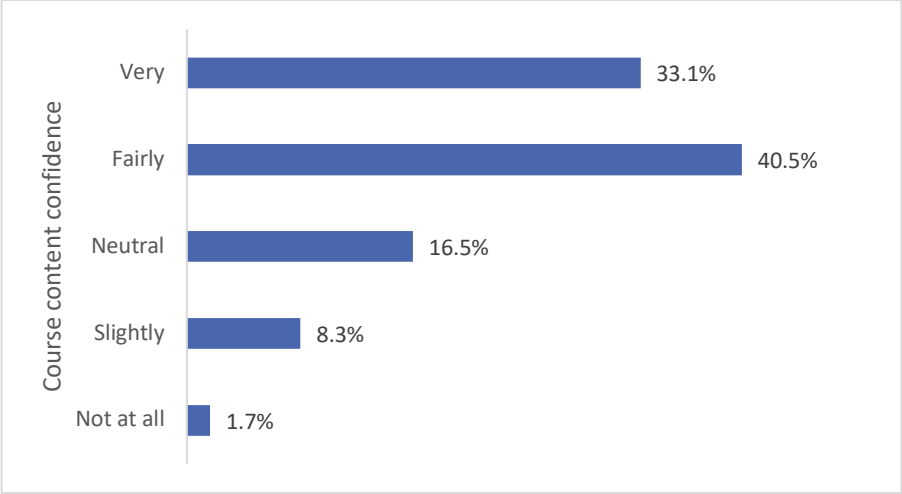
POATSP RN and RPN Online Course Survey participants were asked to assess course content difficulty. Their responses were recorded on a five-point scale (see Figure 1), with five indicating that course content was "too advanced" and one indicating that course content was "too basic."

***Figure 1**. POATSP RN and RPN Online Course Survey respondents' assessment of the difficulty of the course content (n=121)*



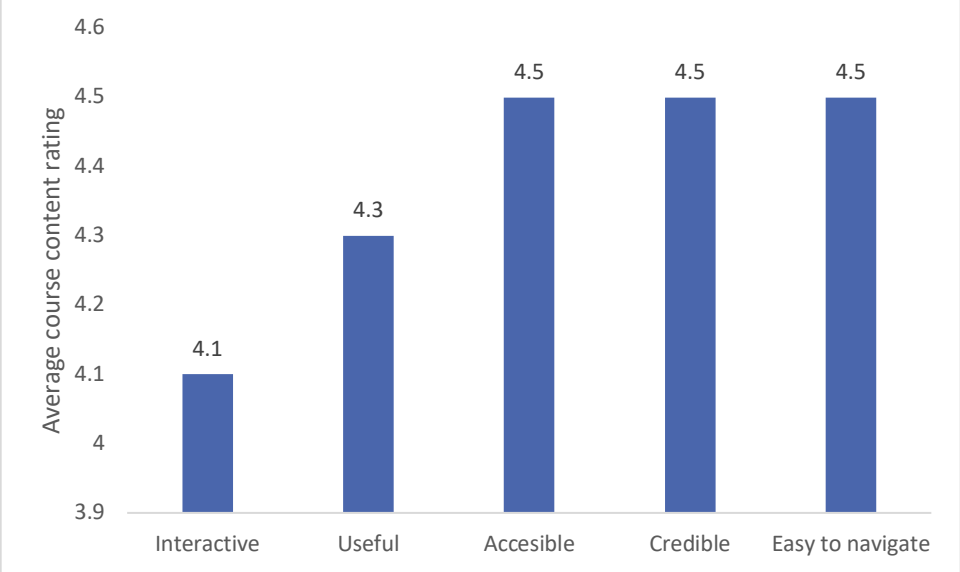
When questioned about their confidence prescribing OAT, the majority of POATSP survey respondents reported that they were "very confident" (33.1%) or "fairly confident" (40.5%) that the course prepared them for the expanded scope of practice (see Figure 2).

***Figure 2.** POATSP RN and RPN Online Course Survey respondents' confidence with course materials (n=121)*



Other aspects of course design were investigated through the POATSP RN and RPN Online Course Survey. Learners were asked to express their agreement on course interactivity, usefulness for daily practice, accessibility, credibility, and ease of navigation. Responses were rated on a five-point scale, with five indicating a very high agreement rating and one indicating a very low agreement rating (see Figure 3). The results showed that most respondents (89.8%) either "agreed" or "strongly agreed" with most aspects of course quality, with an overall average agreement rating of 4.4.

Figure 3. *POATSP RN and RPN Online Course Survey respondents' average agreement with course interactivity, usefulness, accessibility, credibility, and navigation ease (n=121)*



3.1.ii RN and RPN Prescriber Survey Results

There were 45 participants that completed the RN and RPN Prescriber Survey. Within this sample, 84.0% were RNs while 15.0% were RPNs. These participants completed the entire POATSP RN and RPN Education and Training Pathway, and the demographic characteristics of the sample are summarized in Table 3.

Table 3. *Demographic results from RN and RPN Prescriber Survey participants*

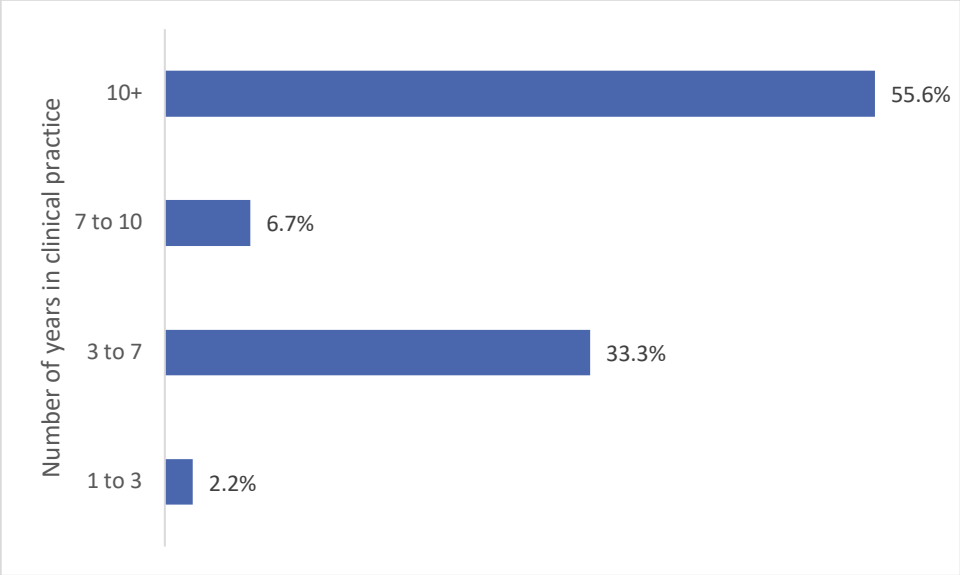
Demographic characteristic	n (%)
Health authority	
First Nations Health Authority	9 (20.0%)
Vancouver Coastal Health Authority	10 (22.2%)
Fraser Health Authority	2 (4.4%)
Interior Health Authority	14 (31.1%)
Island Health Authority	5 (11.1%)
Northern Health Authority	4 (8.9%)
Provincial Health Services Authority	2 (4.4%)
Fee for service	0 (0%)
Community setting of practice	
Metro (190,001+)	10 (22.2%)
Urban/Rural (40,001 – 190,000)	13 (28.9%)
Rural (10,001 – 40,000)	12 (26.7%)
Remote (0 – 10,000)	8 (17.8%)
Both Metro and Remote	1 (2.2%)
In consultant role	1 (2.2%)
Other	-
Area of clinical practice	
Inpatient setting	
General medicine	2 (4.4%)
Addiction medicine	2 (4.4%)
Maternity	1 (2.2%)
Long-term care	0 (0%)
Outpatient setting	
Primary care	12 (26.7%)
Addiction medicine	22 (48.9.%)
Community health nursing	1 (2.2%)
Intensive care management	1 (2.2%)
Remote Nursing station	1 (2.2%)
Public Health	1 (2.2%)
General medicine	0 (0%)
Youth health services	0 (0%)
Mental Health	18 (40.0%)
Emergency	1 (2.2%)
Harm reduction services	14 (31.1%)
Corrections	2 (4.4%)
Bed-based treatment settings	1 (2.2%)
Recovery services	2 (4.4%)

Outreach	12 (26.7%)

**Questions where survey participants can select or provide more than one answer*

We asked participants to report on the number of years they have practiced as a RN or RPN. This distribution is displayed in Figure 4 and most participants reported having worked over 10 years as an RN or RPN (55.6%).

Figure 4. *Number of years the participants have practiced as an RN or RPN*



Through the RN and RPN Prescriber Survey, we asked RNs and RPNs to provide their feedback on the POATSP RN and RPN online course modules, the workbook and preceptorship experience. The vast majority of respondents (97.8%) "agreed" or "strongly agreed" that the POATSP RN and RPN Education and Training Pathway was accurate and up-to-date. Furthermore, a large majority of participants (93.3%) were satisfied with the quality of the POATSP RN and RPN Education and Training Pathway. We asked the RNs and RPNs what they liked about the POATSP online course (see Table 5), the workbook (see Table 6) and the preceptorship experience (see Table 4). We also asked the survey participants to comment on areas for improvements in each part of the education and training pathway.

Table 4*. Feedback from the RN and RPN prescribers on the POATSP online course*

POATSP RN and RPN online course feedback question	n (%)
What the survey participant liked about the POATSP online course*	
It was comprehensive	38 (84.4%)
It addressed their learning needs	31 (68.9%)
Video/animation content enhanced their learning experience	4 (8.9%)
It wasn't too simplified	1 (2.2%)
Resource section	1 (2.2%)
Case studies	1 (2.2%)
Self-paced	2 (4.4%)

Other	-
Opportunities to improve online POATSP RN and RPN online course*	
It's too long	10 (24.5%)
RN and RPN scope of practice isn't clear enough	10 (24.5%)
There is too much repetition	7 (15.6%)
More interactive/engaging features needed (e.g., more videos)	5 (11.1%)
Post-module quiz questions need improvement	3 (6.7%)
Education could be enhanced (e.g., pharmacology, acute care, care in remote communities)	3 (6.7%)
Intermittent preceptorship would be helpful	2 (4.4%)
Pain section	1 (2.2%)
iOAT	1 (2.2%)
Spelling errors	1 (2.2%)
Broken links	1 (2.2%)
Content should be designed around DSTs	1 (2.2%)

**Questions where survey participants can select or provide more than one answer*

Many RNs and RPNs found that the POATSP online course was comprehensive (84.4%) and that it addressed their learning needs (68.9%). Some found that the course was too long (24.5%) and that the RN and RPN scope of practice was not addressed clearly (24.5%). Other areas for improving the POATSP online course can be found in Table 4.

***Table 5**. Feedback from the RN and RPN prescribers on the workbook*

Workbook feedback question	n (%)
What the survey participant liked about the RN and RPN workbook*	
It helped me apply my new knowledge	35 (77.8%)
It was comprehensive	31 (68.9%)
It was the right level of difficulty	24 (53.3%)
It was the right length	19 (42.2%)
Could be completed after first day of preceptorship	1 (2.2%)
Complexity of cases covered	1 (2.2%)
Not completed yet	1 (2.2%)
Other	-
Opportunities to improve the RN and RPN workbook*	
It wasn't comprehensive enough and needed different scenarios	8 (17.8%)
Education could be enhanced (e.g. acute care focus needed, direct links to DSTs, prescriptions with peer support for pick-up/dispensing)	3 (6.7%)
No opportunities identified	3 (6.7%)

It was too long	2 (4.4%)
It was too short	2 (4.4%)
It was too easy	2 (4.4%)
Better done in discussion group	2 (4.4%)
It was too hard	1 (2.2%)
Did not respond	23 (51.1%)

**Questions where survey participants can select or provide more than one answer*

Many RNs and RPNs found that the workbook helped apply new knowledge to clinical scenarios (77.8%) and that it was the right level of difficulty (53.3%). There were many survey participants that found the workbook to be comprehensive of different clinical scenarios (68.9%) however, a few found that it was not comprehensive enough and needed more diversity of case examples (17.8%). Furthermore, the majority of participants found that their preceptor was an effective coach (77.8%) and that the preceptorship experience helped apply their knowledge within clinical settings (73.3%) (see Table 5). There were some participants that found that the preceptorship was too short (17.8%). Other opportunities to improve the preceptorship program are listed in Table 6.

***Table 6**. Feedback from the RN and RPN prescribers on the preceptorship experience*

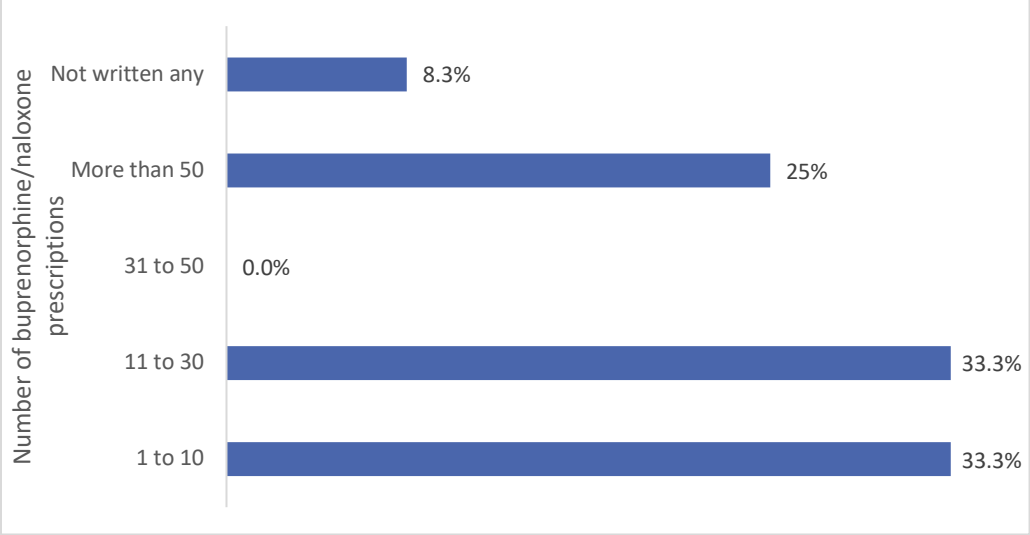
Preceptorship feedback question	n (%)
What the survey participant liked about the preceptorship experience*	
My preceptor was an effective coach	35 (77.8%)
It helped apply new knowledge	33 (73.3%)
I had opportunities to participate in a variety of OAT visits that helped me when I started prescribing	29 (64.4%)
It was the right length	22 (48.9%)
Not completed yet	2 (4.4%)
Not applicable	2 (4.4%)
Had two different preceptors – good to see different perspectives	1 (2.2%)
Opportunities to improve RN and RPN preceptorship*	
It was too short	8 (17.8%)
Did not have enough opportunities to participate in a variety of OAT visits	8 (17.8%)
It was too long	1 (2.2%)
It did not help apply new knowledge	1 (2.2%)
Did not help apply knowledge in all areas	1 (2.2%)
10 days would be more effective	1 (2.2%)
Lots of no shows	1 (2.2%)
Not applicable	2 (4.4%)
Did not respond	26 (57.8%)
Other	-

**Questions where survey participants can select or provide more than one answer*

In addition to the POATSP RN and RPN Education and Training Pathway, 40% of the participants supplemented their learning with other OAT training opportunities. Since the completion of the training pathway, 53.3% have written opioid agonist treatment (OAT) prescriptions in their clinical practice. The most commonly cited reasons why a prescription had not been written were that a RN and RPN prescribing program had not yet been set up in their clinical setting (28.6%), that they were no longer in a RN and RPN prescribing role (14.3%), they had not completed the preceptorship program yet (14.3%) and that client preferences for OAT were out of RN and RPN prescribing scope (9.5%).

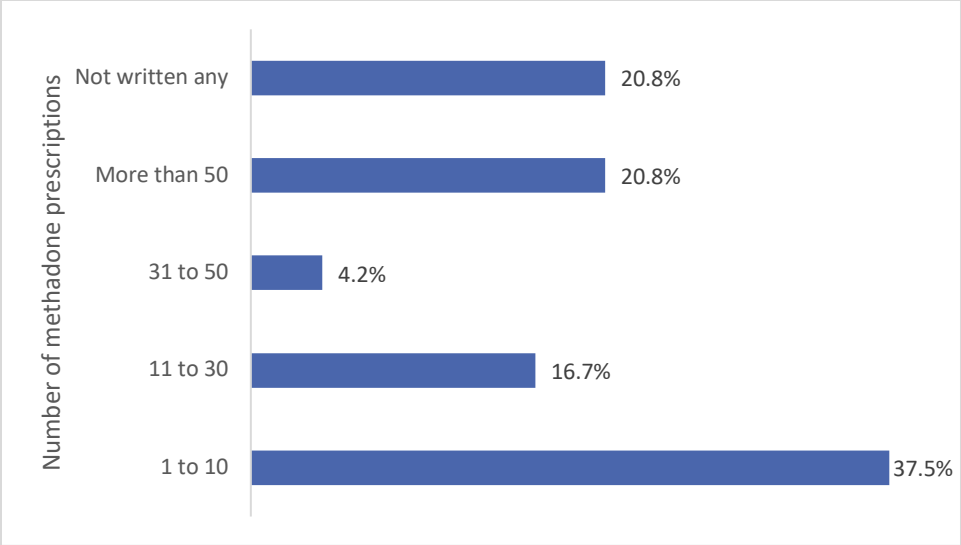
Among the RNs and RPNs that have prescribed OAT, 91.7% have prescribed buprenorphine/naloxone, 79.2% have prescribed methadone and 62.5% have prescribed SROM. The distribution of the number of prescriptions provided for each type of OAT is summarized in Figures 5-7.

Figure 5. *Proportion of buprenorphine/naloxone prescriptions provided in clinical practice (n=24)*



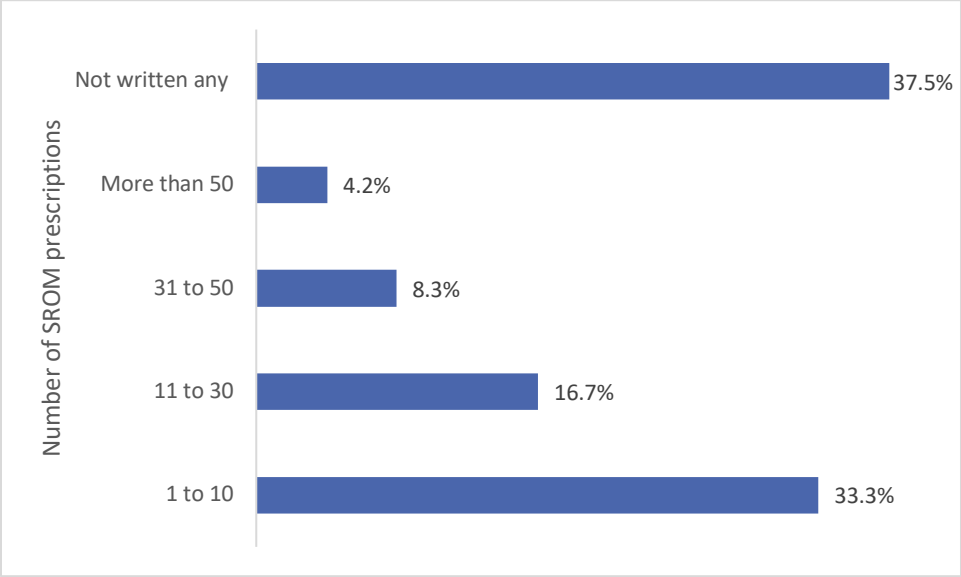
One-third of the sample have written between 1-10 prescriptions and another third of the sample have written 11-30 prescriptions for buprenorphine/naloxone. There were two participants (8.3%) that had not written any buprenorphine/naloxone prescriptions however, they reported having provided methadone and SROM prescriptions.

Figure 6. *Proportion of methadone prescriptions provided in clinical practice (n=24)*



Compared to the proportion of participants that have not written any buprenorphine/naloxone prescriptions (8.3%), there were more RNs and RPNs that have not written any methadone prescriptions (20.8%) and even more RNs and RPNs that have not written any SROM prescriptions (37.5%).

Figure 7. *Proportion of SROM prescriptions provided in clinical practice (n=24)*



The two RN and RPN Prescriber Survey participants who had not yet prescribed buprenorphine/naloxone cited client preferences as the reason for not yet providing these prescriptions. RNs and RPNs who have written OAT, but not prescribed SROM (37.5%), were asked to discuss reasons why they had not yet provided SROM prescriptions. They also reported client preferences as a limitation or that the physicians in their clinics handled SROM cases. Others noted that their clients had not met the appropriate indicators for SROM prescriptions, that their clinical program was not fully established for SROM prescribing, that their prescriber training was incomplete, that they

were completing their prescriber training at the time of the survey or that they were working in a casual position as reasons for why they had not yet provided SROM prescriptions.

Participants were next asked to comment on their intentions to expand their scope of practice, to include prescribing buprenorphine extended release (ER) injections (sublocade), if training became available and if the program was supported by their employer. A large majority of participants (86.7%) expressed the intention to expand their practice to include buprenorphine ER if it became available.

The RN and RPN Prescriber Survey also explored participants' intentions to expand their scope of practice to include prescribed safe supply (PSS,) if training became available and if it was supported by their employer. More than half of the sample (64.4%) reported that they intended to expand their scope of practice to include PSS if it became available. Some participants (11.1%) would not expand their practice to include PSS for the following reasons: risk of diverted safe supply, lack of consistent prescribing in rural shared care model, not comfortable providing PSS and requiring more knowledge translation pieces published by the BCCSU to show communities the effectiveness of PSS.

3.1.iii Preceptor Survey Results

At the time of the survey, the BCCSU had 198 preceptors and among those, 45 had completed the Preceptor Survey. Therefore, we had a survey response rate of 22.7%. Within the sample that completed the survey, 33 supported RN and RPN learners in the preceptorship program. The demographic characteristics of these preceptors are summarized in Table 7. Within the sample (n=33), 75.8% were physicians while 24.2% were nurse practitioners. We inquired how preceptors were providing care in their communities and 75.8% reported providing both in-person and virtual/telehealth visits, while 22.4% were only providing in-person care. Almost every preceptor (94.0%) prescribed pharmaceutical alternatives to the toxic drug supply (e.g., safer supply or risk mitigation prescribing).

Table 7. *Demographic results from the preceptor survey participants*

Demographic characteristic	n (%)
Health authority	
First Nations Health Authority	1 (3.0%)
Vancouver Coastal Health Authority	12 (36.4%)
Fraser Health Authority	5 (15.2%)
Interior Health Authority	4 (12.1%)
Island Health Authority	9 (27.3%)
Northern Health Authority	6 (18.2%)
Community setting of practice	
Metro (190,001+)	15 (45.5%)
Urban/Rural (40,001 – 190,000)	6 (18.2%)
Rural (10,001- 40,000)	9 (27.3%)
Remote (0 – 10,000)	1 (3.0%)
Both Metro and Remote	1 (3.0%)
Missing responses	1 (3.0%)
Area of clinical practice*	

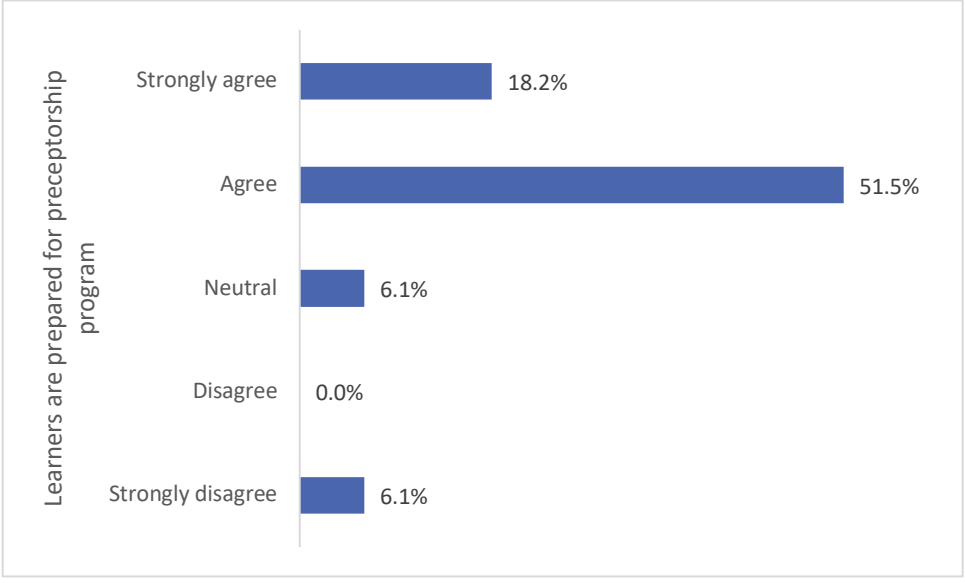
Inpatient setting	
General medicine	14 (42.4%)
Addiction medicine	4 (12.1%)
Maternity	2 (6.1%)
Outpatient setting	
Primary care	21 (63.6%)
Addiction medicine	26 (78.8%)
General medicine	1 (3.0%)
Youth health services	1 (3.0%)
Mental Health	5 (15.2%)
Emergency	3 (9.1%)
Harm reduction services	1 (3.0%)
Outreach	5 (15.2%)

**Questions where survey participants can select or provide more than one answer*

Among the sample of participants that supported RN and RPN preceptorship, 60.6% had supported one to three learners in the past year. We recorded the average number of preceptorship days supported by the survey participants in the last year and the majority (69.7%) supported 1-2 days per month.

Preceptors were asked about the abilities of the RN and RPN prescribers they had the opportunity to work with. Of preceptors surveyed, 69.7% "agreed" or "strongly agreed" that the learners they worked with were prepared for the preceptorship program (Figure 8).

Figure 8. *Preceptor's perceptions of RN and RPN preparedness for preceptorship program (n=33)*



Preceptors were also asked if they perceived any barriers to OAT prescribing for RNs and RPNs in their health region (see Table 8). Some preceptors reported perceiving some barriers for OAT prescribing (39.4%). Despite these barriers, 57.6% of the sample believed that RN and RPN OAT prescribers were

helping to improve access to OAT and substance use services in their region because the program created more prescribers to help with healthcare capacity needs (39.1%). Survey participants who did not believe RN and RPN OAT prescribing would improve access to care reasoned that RN and RPN confidence levels, high RN and RPN turnover, complexity of clinical cases, implementation barriers limited program impact.

***Table 8**. Perception of RN and RPN OAT prescribing among survey sample of preceptors*

Perception of RN and RPN OAT prescribing	n (%)
Any perceived barriers to OAT prescribing for RN and RPN prescribers in the survey participant's health region	
Yes	19 (57.6%)
No	13 (39.4%)
Did not respond	1 (3.0%)
Types of perceived barriers to OAT prescribing for RN and RPN prescribers in the survey participant's health region (n=19) *	
Few nurses are being trained (e.g., in Northern Health, some health authorities not permitting SROM and methadone prescribing)	4 (21.1%)
Nurse confidence	2 (10.5%)
Nurse turnover	2 (10.5%)
Nurse capacity	1 (5.3%)
Slow implementation by VCH	1 (5.3%)
Outside of scope	1 (5.3%)
Lack of dedicated facilities	2 (10.5%)
Unstable patient population	1 (2.2%)
Strict rules around prescribing (e.g., need to reassess every day for OAT titration)	1 (2.2%)
Unsupportive leadership	2 (4.4%)
Complexity of clinical cases	1 (2.2%)
Difficult to implement in hospital	1 (2.2%)
Reasons why RN and RPN OAT prescribers are helping to improve access to OAT and substance use services in their region (n=23)	
More prescribers to help with capacity needs	9 (39.1%)
They see patients that might not otherwise might not have a primary care provider	1 (4.3%)
Available for extended hours	1 (4.3%)
Access to clients	1 (4.3%)
Not sure	1 (4.3%)
Did not respond	10 (43.5%)
Reasons why RN and RPN OAT prescribers are not helping to improve access to OAT and substance use services in their region (n=8) *	
Enough OAT prescribers in the area	3 (21.4%)

Not enough RN and RPN prescribers available/need more in rural areas	2 (14.3%)
Nurses who have training are not always confident to practice	1 (7.1%)
Lack of uptake	1 (7.1%)
RN and RPN turnover	1 (7.1%)
Don't have enough OAT prescribing RNs and RPNs	1 (7.1%)
Complexity of cases	1 (7.1%)
Implementation barriers	1 (7.1%)
Free hand to Rx Dilaudid and Kadian	1 (7.1%)
Not sure	1 (7.1%)
Did not respond	1 (7.1%)

**Questions where survey participants can select or provide more than one answer*

3.2 Qualitative Results

In addition to the quantitative data, we analyzed the qualitative results from the POATSP RN and RPN Online Course Survey, the RN and RPN Prescriber Survey and the Preceptor Survey. While the primary scope of this evaluation is intended to explore perceptions of the education, training and practice supports for RN and RPN prescribers, many participants also provided information about the impact of structural, interpersonal, and implementation-related challenges as well as organizational policy. We present the results from the POATSP RN and RPN Online Course Survey first, the RN and RPN Prescriber Survey results second and finally the qualitative results from the Preceptor Survey are presented last.

3.2.i POATSP RN and RPN Online Course Survey

The POATSP RN and RPN Online Course Survey offered respondents a chance to reflect on the online learning portion of the education and training pathway. Health authority affiliated RN and RPN respondents offered insight into their motivation for pursing advanced substance use education, reflect on their ongoing learning needs prior to moving onto the preceptorship component and explore anticipated barriers to OAT prescribing in their practice.

3.2.i.1 Motivating Factors

When POATSP RN and RPN Online Course Survey respondents were asked "*What are you looking forward to about this practice?"* there were 95 participant responses. Most RN and RPN course participants cited a desire to help people as their primary influence (46.3%). A nurse who completed thee course commented, "*I am looking forward to building a trusting and compassionate rapport with clients, meeting their needs […] to the best of my ability*." Respondents also reported wanting to support an overburdened and overcapacity system of substance use care across the province and increase access to care (35.8%). Learners were hopeful that the introduction of nurse prescribers into communities, with limited prescribing capacity, could improve care for people with OUD. Professional development (28.4%) was an additional motivator for nurses who completed the POATSP RN and RPN Education and Training Pathway. One nurse explained that they were "*excited to broaden [their] scope of practice and to have more knowledge and skills to add to [their] nursing career*." Nurses expressed that they were motivated by knowledge seeking and opportunities for scope expansion.

3.2.i.2 Learning Needs

When RN and RPN course participants were asked "*Do you feel prepared for your preceptorship? Upon reflecting on your learning needs, what else could the BCCSU provide to support your education and training?"* the responses were varied. Of the 121 responses, half of the sample felt that the course adequately prepared them for their preceptorship (50.4%). Respondents discussed varied, high-level learning needs to ensure confidence and competence for their preceptorship. Some highlighted the importance of hands-on training (6.6%) and mentorship (4.1%) to support early knowledge consolidation. One nurse stated that being able to engage with a "*nurse mentor who is currently prescribing to ask questions prior to clinical [would help to] to address any gaps in knowledge.*"

Course participants were asked specifically "*What key aspects of prescribing are you hoping to cover with your preceptor?*" Many learners wanted to gain more confidence with OAT initiation, titration, dosing, and micro-dosing (28.1%). Comparatively, some reported wishing to be exposed to more complex clinical scenarios (13.2%), such as managing withdrawal (including precipitated withdrawal), and transition between OAT modalities. Another important value for respondents was the importance of hands-on learning to support application and consolidation of knowledge and competency building (23.1%). The anticipation of the in-person preceptorship was highlighted by one nurse who said, "*I am a very hands-on, experiential learner so the preceptorship is needed for my consolidation.*"

3.2.i.3 Barriers to Implementation

POATSP RN and RPN online course participants were asked "*Can you identify any barriers to incorporating prescribing into your practice?*". All 121 participants responded to this question, some RNs and RPNs anticipated that policy and employer restrictions on prescribing and roll out of the nurse prescriber role (20.7%), would exist as a barrier to implementing the expanded scope of practice. A few learners reported that their primary employer did not permit nurses in their region to expand their scope of practice beyond buprenorphine/naloxone prescribing despite training available to do so. One health-authority-affiliated RPN mentioned that their "*health authority limit[s] what [they are] able to prescribe*" creating a barrier to the robust OUD care they can offer. POATSP RN and RPN Online Course Survey respondents explored limited prescribing as a barrier to optimizing OUD care in their communities.

Structural barriers to care (21.5%) also appeared within responses to the course evaluation survey. One nurse discussed not having access to physician and NP colleagues for consultation among rural and remote nurse prescribers, stating, "*I will be working in isolation with no one there directly to consult with.*" Specific site barriers were also explored, with one nurse reporting a "*lack of physical space to meet with clients.*" Clinic hours and backfill coverage for staff were other highlighted structural barriers to accessible OAT care. These RNs and RPNs highlighted a need for improved structural support in communities with limited capacity and access. POATSP RN and RPN Online Course Survey participants also expressed concern that their work setting would not expose them to enough experience prescribing to ensure confidence and competence in practice (8.3%). One nurse reinforced this theme, stating that "*seeing enough patients to maintain skills for confidently prescribing OAT*" would be a potential barrier to implementing OAT into their practice. Another barrier to implementing OAT prescribing was reluctance among existing staff and providers to engage in interdisciplinary care (5.8%). One nurse

stated that at her worksite, there is "*not a collaborative physician team that is accessible and approachable for consultation/questions.*"

3.2.ii RN and RPN Prescriber Survey

The RN and RPN prescriber survey asked a series of open-ended questions. RN and RPN prescribers across BC had the opportunity to explain and describe their experiences as part of the education and training pathway, barriers to OAT prescribing, as well as additional supports needed to assist those with OUD.

3.2.ii.1 RN and RPN Experiences

RN and RPN prescribers were asked questions regarding their experience with the entirety of the education and training pathway, including the POATSP RN and RPN online course, the workbook, and their preceptorship. They were encouraged to describe what information, support, resources or opportunities they needed to successfully complete the online course, workbook and preceptorship. Approximately 35 participants responses were analyzed.

The first, and most overwhelmingly agreed upon theme, was the option to have paid time off and dedicated backfill coverage for their current roles (74.3% requested time and coverage for course completion, 63.6% requested time and coverage for workbook completion, and 54.5% requested time and coverage for preceptorship completion). Many RN and RPN prescribers noted that they were expected to complete the self-paced components "*off the side of their desk*" which posed a significant barrier to completion. To support preceptorship completion, a small number of participants cited the limited number of preceptors posed a barrier to completion and nurses wanted more support accessing them (12.2%). The RN and RPN prescribers acknowledged a provincial OAT prescriber shortage as a barrier to connecting with an available preceptor to complete the preceptorship experience. Participants were specifically asked "*What would have improved your preceptorship experience?" and similar themes emerged among the 35 responses. A nurse prescriber stated that "having more preceptors available across the region*" would have impacted their experience. This highlights the above sentiment that participants value having timely and appropriate access to mentor prescribers that can help build the strong practical knowledge base needed for prescribing (8.6%).

Other RN and RPN prescribers brought up the opportunity to extend their preceptorship length or offering multiple site options for variability in experience (40.0%). For example, one nurse stated that an improvement could be to "*increase the amount of time spent in the preceptorship as this is where the learning is consolidated.*" Similarly, survey respondents expressed difficulty garnering enough relevant experience during their allotted preceptorship time and in their practice setting. One nurse highlighted that they "didn't get to see enough variety in [their] preceptorship. The learning experience all depends on which clients show up." RN and RPN prescribers explored the difficulty of capturing all relevant experiences within the allotted time or the preceptorship's practice setting, which they expressed as a barrier for confident entry to practice.

3.2.ii.2 Barriers to OAT Prescribing

RN and RPN prescribers were invited to "Please describe any barriers that [they] have faced while incorporating OAT prescribing into [their] practice." Among the 37 responses, a re-emerging theme was that the participants lacked time and had heavy workloads and that inhibited them from providing OUD

care and prescribing OAT to clients (18.9%). One nurse prescriber stated that "*trying to integrate [OAT prescribing] into an already over capacity workload*" was a barrier to scope expansion.

Another barrier expressed by RN and RPN prescribers was limited OAT or safer supply prescribing options available (32.4%). For example, being unable to prescribe risk mitigation safer supply, initiate or bridge methadone and SROM, and being unable to prescribe extended-release buprenorphine/naloxone were also reported as barriers to client continuity of care. This is eloquently summarized by one nurse,

> *Major limits have been not being able to bridge higher doses of SROM/Methadose without a consult. Not being able to start SROM/Methadose, not being able to prescribe Sublocade and not being able to prescribe Hydromorphone Safe Supply for inductions, or to continue/bridge scripts.*

Another nurse prescriber highlighted the specific concerns regarding managing OAT for clients who are receiving existing PSS stating, "*I usually avoid prescribing their OAT, so it doesn't look suspicious to have multiple prescribers*." The RN and RPN prescribers' inability to provide the breadth of medications to meet client needs was expressed as a barrier to comprehensive OUD care.

3.2.ii.3 Additional Information, Support, Resources and Opportunities

Survey participants were asked "What information, support, resources or opportunities do RN and RPN OAT prescribers need to establish role clarity amongst the larger interdisciplinary team (e.g., pharmacy, MD/NP prescribers, etc.) related to scope of practice for RN and RPN OAT prescribers?". This question garnered 29 responses from survey participants. The central theme emphasized the need for a clear scope of practice and concise guidelines (44.8%). As expressed by a participating nurse, "clear and consistent messaging to all members of the larger interdisciplinary team" would assist in fostering clarity for prescribers. Overall survey participants advocated for information dissemination as a pathway to enhanced role clarity.

Course survey participants were asked "*What information, support, resources or opportunities do RN and RPN OAT prescribers need from their leadership to safely, promptly and effectively consult with or refer clients to MD/NPs (e.g., to escalate care)?*". Of the 28 RN and RPN prescribers that responded to this question, 39.3% highlighted a lack of access to physicians and NPs that subsequently led to reduced ability to consult with and refer to when these actions were required. When survey participants were asked, what support was needed to refer OAT clients effectively, safely, and efficiently to their physician and NP colleagues, they overwhelmingly responded that more immediate access to physician and NP colleagues would bridge this gap. One nurse prescriber reported that the "*the ability to actually have the [physicians] and NPs to do this...especially in a small town*" is a barrier to the existing referral system. Working within an interdisciplinary team and having access to physicians and NPs is essential to RN and RPN prescribers given the limitations of their OAT prescribing options.

RN and RPN prescribers requested having a clear escalation pathway and ensuring all interdisciplinary team members were aware of this (28.6%). A nurse prescriber expressed that "*education as to the RN's scope and when they may need to connect with physicians and NPs would be useful*", highlighting the need for role clarity. Another nurse reported that a "*streamlined and prompt referral process and response time*" would be essential to ensuring safe and timely escalation of care. Survey participants highlight the need for adequate access to physicians and NPs.

RN and RPN prescribers were asked about the types of information, support, resources or opportunities they needed to improve treatment engagement and retention. There were 20 RN and RPN prescribers who responded to this question. The theme that emerged was that the nurses wanted support to effectively meet the psychosocial needs of their clients (40.0%).

3.2.ii.4 Further Scope Expansion

The RN and RPN Prescriber Survey specifically asked RN and RPN prescribers about what additional supports would they need in order to expand their current scope of practice to include prescribing safer supply options or buprenorphine extended-release (ER) injections. The approximate number of responses was 33 and participants responded with similar answers for both highlighting additional course materials (58.8% buprenorphine ER, 50.0% PSS), preceptorship time (8.8% buprenorphine ER, 50.0% PSS), and guidelines (8.8% buprenorphine ER, 28.1% PSS) as the most common themes.

RN and RPN prescribers were also asked to approximate how much, if any, additional preceptorship time would help them feel comfortable expanding to buprenorphine ER prescribing. Responses ranged from no additional clinical time to 3 days with a cluster of responses indicating learners would prefer approximately 1 additional preceptorship day to include prescribing buprenorphine ER into their practice.

3.2.ii.5 Support to Feel Valued

When RN and RPN prescribers were asked "*What do RN and RPN OAT prescribers need from their leadership to feel valued in their role?*" the majority of the 25 respondents cited the need to feel supported and respected in their new roles (44.0%) and felt that the increase in responsibility warrants an increase in financial compensation (36.0%). RN and RPNs emphasised that an increase is financial compensation for this increased skill set and liability is a way for leadership to recognize and value nurse prescribers in their roles.

3.2.ii.5 Additional Education and Training

RN and RPN prescribers were asked to elaborate on "*What information, support, resources or opportunities do RN and RPN OAT prescribers need from their leadership to gain further competencies in substance use care and treatment?*" The 18 Responses to this question reiterated existing themes that included the need for paid education leave and the protected time to complete the training (50.0%). Additionally, learners were hopeful for better information dissemination of education offerings (27.8%). Overall, the majority of RN and RPN prescriber respondents highlighted the ongoing need for protected education time and better communication of opportunities.

3.2.iii Preceptor Survey

Preceptors were invited to participate in a survey that asked about their overall experience providing support to the POATSP education and training pathway RNs and PNs during their preceptorship. The survey included open-ended questions. The two main area of focus for these responses were the rewarding aspects of the preceptorship experience and areas for improvement.

3.2.iii.1 Rewarding Aspects for Preceptors

When asked "*What do you find rewarding about being a BCCSU OAT preceptor?*", overwhelmingly the 36 preceptor who responded acknowledged that the most rewarding aspect of the preceptorship experience was supporting the improvement of OUD care across the province (66.7%). Overall,

preceptors were motivated by improving access through increasing the number of skilled prescribers in BC and improving quality of OUD care province wide.

3.2.iii.2 Areas for Improvement and Recommendations

At the end of the survey preceptors were asked "*Do you have any additional recommendations for the BCCSU in its work supporting the development of RN and RPN OAT prescribers prior to their preceptorship time?*" that garnered 6 responses. Followed by "*In your opinion, what could be improved upon?*" which 30 preceptors responded to. The first theme that emerged among the responses was that RN and RPN prescribers may need more time and variety in their preceptorship to ensure competent entry to practice (33.3% Recommendations, 13.3% Improvement). One respondent highlights that prescribing is a new skill for nurses stating that "*RN and RPN prescribers are also learning to prescribe" and suggested "a primer on this may be helpful.*" A physician stated that,

> *I wonder about setting aside a formal day in addition to the preceptorship that is for in person teaching and it could be done in a sim-like fashion*.

Overall, preceptors advocated that education and training optimization should be focused on time and variability of experiences.

4.0 Discussion

The results of this evaluation demonstrate that certain structural barriers (e.g., compensation, healthcare provider shortages) currently challenge the implementation and scalability of RN RPN OAT prescribing and may provide useful insights to inform the broader provincial implementation of this initiative. With respect to the training and education pathway, the POATSP RN RPN online course modules, workbook and preceptorship experience were well received by learners, as the majority were satisfied with the content and quality of their education. The vast majority of learners thought the online course and workbook were comprehensive and that they supported their learning needs. The majority of learners also felt that their preceptor was an effective coach and that the preceptorship experience helped apply their knowledge within clinical settings. The RNs and RPNs OAT prescribers also appreciated the opportunity to consolidate and apply their early learning in real life scenarios, and valued their preceptor's expert mentorship. Overall these results highlight the effectiveness of the POATSP RN and RPN Education and Training Program in preparing RNs and RPNs to diagnose and treat OUD. These findings are expected and in alignment with the BCCSU Phase 1 Nurse Prescribing evaluation findings. Future opportunities exist to build on and further improve what is an already a comprehensive education and training program to diagnose and treat opioid use disorder.

4.1 Online Course

While the respondents were responded very positively to the POATSP RN RPN online course, streamlining the online course to be more concise with less repetition is a key priority to reduce barriers to completion and optimize the learning experience. BCCSU is currently in the planning stages of integrating this feedback into POATSP and POATSP RN RPN, with the primary goals of streamlining the content, reducing redundancy and improving overall learner experience. BCCSU is also in partnership with UBC Studios, is producing several modelling videos that depict clinical scenarios around assessment, screening and brief intervention, OAT visits and other aspects of OUD care, to enhance the interactivity and diversify content presentation throughout the online course. POATSP and POATSP RN and RPN are also undergoing an Indigenous Cultural Safety review process to support learners to have

an awareness of the impact of historical and ongoing colonial violence against Indigenous people in BC, and apply principles of Indigenous cultural safety to their clinical practice.

4.2 Workbook

BCCSU is currently engaging in augmenting the current RN RPN workbook to include more cases to support the next phase of scope expansion, which includes initiations of methadone and SROM. While not well captured specifically in the survey responses, future efforts to expand the workbook could explore what additional types of cases learners want to see more of in the workbook, as well as creating an additional optional workbook package for learners who feel they needed more practice prior to the preceptorship. This would balance the need to streamline the minimum required elements of the training pathway to reduce barriers to completion, while still offering a comprehensive learning experience for the majority of learners.

4.3 Preceptorships

While the preceptorship experience was perceived positively, a stronger emphasis could be placed on the current opportunities to add additional formal preceptorship time with a BCCSU-approved preceptor. As the timelines currently outlined are minimum timeframes and decisions to add additional formal preceptorship time can be a collaborative decision between the preceptor, learner and BCCSU. Moreover, a peer mentorship model with other more experienced RN RPN OAT prescribers could also help augment required preceptorship time with a BCCSU-approved preceptor. Now that the implementation of RN RPN OAT prescribing is approaching its third year, there is potential to explore creating a mentorship program for novice nurse prescribers to connect with to help build confidence around engaging in this expanded scope of practice in addition to the communities of practice that already exist for nurse prescribers.

Incorporation of simulation-based training for prescribing OAT to augment the preceptorship experience provide an additional opportunity for nurses to practice a variety of skills and gain confidence in a controlled environment. Offering an optional extension to the preceptorship could also be explored to ensure nurse prescribers have sufficient exposure to a variety of clinical scenarios to support competent entry into this expanded scope of practice. BCCSU currently has a strong interest in pursuing simulation-based technology to enhance the preceptorship experience and is currently exploring simulation modalities for this purpose.

4.4 Decision Support Tools

Currently, the decision support tools outline the scope of practice and required points of consultation or referral, and provide a framework for approaching care and making clinical decisions. Scope of practice content has also been woven throughout the POATSP RN RPN online course. BCCSU is exploring opportunities to streamline the DSTs and improve their usability at the point of care, as well as exploring the impact of additional separate scope of practice information in addition to the decision support tool. Having a concise standalone resource for scope of practice may support learners and other members of the interdisciplinary team to better understand and differentiate the scope of practice of RN and RPN OAT prescribers from their physician and NP colleagues.

4.5 Considerations for Scope of Practice Expansion

These results suggest a greater confidence and readiness to prescribe buprenorphine ER and corroborate current plans to move forward with expanding scope of practice to include prescribing of buprenorphine ER, while waiting for more empirical evidence to emerge before expanding to safer supply prescribing. While responses varied, a cluster of nurses indicated that one additional preceptorship day would be sufficient to support them to expand their scope of practice to prescribe buprenorphine ER injections. In order to reduce barriers and improve feasibility, informal mentorship supported by the employer and organized within the health authority could be a sufficient alternative to formal additional preceptorship time with a BCCSU-approved preceptor.

5.0 Conclusion

Evaluation tools described in this report gathered evidence to describe the effectiveness of the POATSP: RN and RPN Education Training Pathway. Learner perceptions of the online course, workbook, preceptorship experience and practice support tools remain largely positive. These data provide invaluable feedback to inform continuous improvements to the preparatory education and training pathway for nurses engaging in this expanded scope of practice. Implementation-related challenges permeated these data and nonetheless provide helpful insights to support successful implementation planning that is relevant for front line clinical and operational leadership, and key stakeholders leading implementation efforts of RN and RPN OAT prescribing across the province.

6.0 Limitations

A limitation of the POATSP RN and RPN online course survey was that it did not have an option for selecting 'Vancouver Island Health Authority' as an employer. Thus, our sample does not accurately capture nurses that were employed by the Vancouver Island Health Authority. The POATSP RN and RPN survey has been amended to correct this error. For the Nurse Prescriber and Preceptor survey questions, not all were made mandatory to respond, resulting in varying response rates to questions. The RN and RPN OAT Prescriber Survey was intended to be completed only by nurses that had completed the entire education and training pathway, however, after analyzing the results, at least two respondents had not completed the full training pathway. After analyzing these responses, this was not felt to have a substantial impact on the overall analysis and these respondents were not excluded.

Appendix

Appendix A: Codes Developed and Used for Each Survey

Codes	POATSP RN and RPN Online Course Survey	Nurse Prescriber Survey	Preceptor Survey
Code 1	Learning needs	Course materials	More time
Code 2	Hands on experience	Preceptor time (expansion, preceptor improve)	More variation
Code 3	Preceptorship time	Scope of practice (expansion, consult refer, role clarity)	Ensure prep complete
Code 4	Mentorship	Protected time/workload (expansion, leader support for course/workbook/ preceptorship barriers, value)	Train more RN and RPN prescribers
Code 5	Policy/health authority barriers	Mentors (leader support for course/workbook/ preceptorship)	-
Code 6	Workplace/community culture	Variety of experiences	-
Code 7	Structural barriers	Peer mentorship (leader support for course/workbook/ preceptorship)	-
Code 8	Confidence/competence	Compensation (leader support for course/workbook/ preceptorship, further competencies, value)	-
Code 9	Not enough OAT options	Respect support (barriers, value)	-
Code 10	Helping people	OAT options (barriers)	-
Code 11	Supporting facility	Role clarity (barriers, role clarity)	-
Code 12	Improving access/barriers	Communication of options (further competencies)	-
Code 13	Increase autonomy/future goals	Outreach	-
Code 14	Knowledge sharing	Psychosocial	-
Code 15	Interactive	Access to MD/NP (consult refer, preceptor improv, leader support for course/workbook/ preceptorship)	-
Code 16	Time to complete course	-	-