

# An Interactive Online Interprofessional Opioid Education Training Using Standardized Patients

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## Abstract

**Introduction:** Opioid pain management is complex and requires a collaborative approach. To prepare health professions students to care for patients who have chronic pain, we developed an interprofessional education (IPE) session for delivery using a virtual platform that featured a standardized patient (SP) interaction. **Methods:** The SP case highlighted a patient on opioids for chronic low back pain resulting from a car accident. Despite no improvement in pain or function, the patient continued taking opioids and developed behaviors that could represent opioid misuse. During the synchronous, online session, interprofessional teams of students interviewed an SP and collaborated to develop a holistic care plan to address the patient's pain and potential opioid misuse. The session evaluation included pre- and postsession surveys. **Results:** Over 750 students from medicine, pharmacy, nursing, and social work programs participated in the virtual IPE sessions during a single year. Students rated the session positively. Matched survey responses suggested improved confidence in knowledge and skills, and learning through Zoom was rated favorably. **Discussion:** We successfully implemented a synchronous online IPE session involving SP interactions that allowed students to practice team-based care of a patient with chronic pain who was taking opioids. Based on the success of this IPE session, including the success of the online delivery model, future IPE sessions will continue virtually.

## Keywords

Chronic Pain, Online/Distance Learning, Opioids, Addiction, Pain Medicine, Standardized Patient, Substance Abuse/Addiction, Interprofessional Education, Pain Management

## Educational Objectives

By the end of this activity, learners will be able to:

1. Describe the roles and responsibilities of the health care team members and how they work together to provide team-based care to patients using opioids.
2. Utilize appropriate nonstigmatizing language when caring for patients taking or potentially misusing opioids.
3. Express their knowledge and opinions to other health care team members with confidence, clarity, and respect, working to ensure common understanding of information, treatment, and care decisions.
4. Evaluate a patient for potential opioid misuse or opioid use disorder as a member of the health care team.
5. Differentiate between treatment options for a patient with an opioid use disorder and/or pain management.
6. Work collaboratively with the health care team and the patient to develop a patient care plan.

## Introduction

As the world navigates its recovery from the COVID-19 pandemic, the opioid epidemic rages on. Reports from the Centers for Disease Control and Prevention (CDC) suggest that overdose rates accelerated throughout the COVID-19 pandemic.<sup>1-3</sup> In 2020, nearly 92,000 overdose deaths occurred in the US, with 75% being opioid related.<sup>4</sup> According to estimates from the CDC, prescription opioid misuse in the US results in an annual economic burden of over \$78.5 billion dollars.<sup>5</sup> It is estimated that up to 29% of people who are prescribed opioids for chronic pain misuse their medications and that between 8% and 12% of people who take opioids for chronic pain relief

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develop an opioid use disorder (OUD).<sup>6</sup> Considering these alarming statistics, it is imperative that health professional education programs intentionally prepare graduates for the complex management of patients with chronic pain who are prescribed opioids.

Since 2018, an interdisciplinary team of faculty and staff from Washington State University and Eastern Washington University have collaborated to develop an interprofessional (IP) team-based opioid education training for health profession students from nursing, pharmacy, medicine, and social work. The IP education (IPE) training incorporates elements of the biopsychosocial model of addictions, which suggests that biological, psychological, social, cultural, and environmental factors contribute to substance misuse and that all aspects must be considered in prevention and treatment efforts.<sup>7</sup>

In 2019, the team designed and piloted an in-person IPE training in which IP student teams were introduced to a patient case through a set of video vignettes.<sup>8</sup> Students worked together in IP teams of four to six people, discussed their professional roles and responsibilities, and developed a care plan for the simulated patient depicted in the videos.<sup>8</sup> Based on evidence that standardized patient (SP) simulations improve student learning, we then redesigned the training session to enhance student engagement by incorporating SPs.<sup>9</sup> The in-person IPE sessions with SPs slated to occur in spring 2020 were halted by the COVID-19 pandemic. The team rapidly adapted the IPE training to a virtual format using the existing video vignettes and Zoom. In spring 2020, 378 students participated in online IPE sessions using the video patient case. With the pandemic still looming in spring 2021, we adapted the online IPE training to incorporate the live (via Zoom) SP interactions reported herein.

Numerous reports have described learning activities that provide students with experience caring for patients with acute pain, chronic pain, and/or substance use disorder (SUD). Most of these educational activities focus on profession-specific training where students learn about pain management within silos. For example, of the more than 30 publications within *MedEdPORTAL*'s Opioids, Addiction, and Pain Education Collection, only three take an IPE approach wherein students learn in interdisciplinary student teams.<sup>10-12</sup> Many of the published reports where IPE is used to facilitate conversation about pain and/or opioid misuse utilize case-based or team-based learning. Bishop and colleagues developed a team-based learning module in which small IP groups discuss a noncancer chronic pain patient case.<sup>10</sup> Fishman and colleagues implemented a case-based session for health profession students focusing on cancer pain

treatment and management.<sup>11</sup> Muzyk and colleagues developed an IP course on SUD and reported improvements in attitudes towards patients experiencing SUDs.<sup>13,14</sup> Additional reports in the literature describe other IPE sessions that have improved student understanding of opioid misuse,<sup>15</sup> OUD,<sup>16</sup> and pain management<sup>17</sup> through various case scenarios and small-group discussions. To our knowledge, only one publication in the literature utilizes both IP student teams and SP interactions.<sup>12</sup> IPE opportunities focusing on SUD education have been reviewed separately.<sup>18</sup>

Herein, we describe an online, synchronous version of an IPE session relying on student teams interacting with an SP through Zoom. The low-stakes, formative training has been developed to enable health profession students to learn from each other about how to provide collaborative care to a patient taking opioids for chronic pain. To our knowledge, previously reported IPE trainings are based on in-person interactions. Since the widespread adoption of videoconferencing technology for teaching and learning is relatively new, this format provides a unique opportunity for IPE. Our online IPE opioid education training session, which targets learners from nursing, pharmacy, medicine, physician assistant, and social work, dedicates specific time to the following elements: IP team collaboration to assess and interview an SP with chronic pain who takes opioids, IP team care planning and discussion, and development of a written IP treatment plan submitted as a formative assignment. Other programs may find this IPE training useful specifically because it addresses one of the biggest hurdles in IPE by providing a model for connecting geographically separated students through videoconferencing technology.

## Methods

### IPE Session Design

Our IP faculty/staff curriculum team represented health professions programs including medicine, pharmacy, nursing, and social work. Our team designed an interactive, online, case-based, IP session allowing students from multiple locations to interact with and learn from each other to address the learning objectives. Design elements include student background preparation materials, use of videoconferencing technology to connect learners, small virtual breakout rooms for IP teams, and SP simulation. Content curation was guided by current evidence and guidelines, state and federal opioid prescribing requirements, and our team's experience treating chronic pain and SUDs.

The session was designed as an IPE capstone activity focused on teams and teamwork. Students from participating health

professions had prior exposure to pain management topics and/or SUDs in their coursework. Faculty from each program independently reviewed the IPE session content to ensure that the material aligned with their learners' knowledge level prior to inviting student participation. Most students had previously completed other IPE activities that highlighted content such as health profession roles and responsibilities, IP communication, and values and ethics. For most students, this was their first IPE experience focused on pain and opioids. Students who completed the training included second-year medical doctor (MD) and doctor of osteopathic medicine (DO) students, first-year physician assistant (PA) students, third-year doctor of pharmacy (PharmD) students, final-semester bachelor of science in nursing (BSN) students, first- through third-year doctor of nursing practice (DNP) students, second-year master of social work (MSW) students, and first- and second-year addiction studies students. The IPE session was a required activity for all participants except addiction studies students and was imbedded within required courses. Students were invited to complete pre- and postsession evaluation surveys that generated data for program improvement and measured perception of knowledge and confidence related to chronic pain and OUD.

#### Curriculum Materials and Logistics

Appendix A provides an overview of curriculum materials and detailed logistics.

*Patient case:* The IPE session focused on a single patient case (Appendix B). The case included the patient's history, results of evidence-based screening tools, and a mock prescription monitoring program (PMP) report. The patient case revealed the patient had chronic low back pain resulting from a car accident, continued opioid use despite no improvement in pain or function, behaviors that might represent potential opioid misuse, and potential adverse drug-drug interactions and/or side effects. The patient case was included in both the presession reading and the student instruction guide during the session.

*Presession:* Prior to receiving any preparatory information, students were invited to complete a voluntary anonymous presession survey asking them to evaluate their perceived knowledge and confidence regarding providing care to patients taking opioids. Prior to the session, students were asked to read an introduction and background reading (Appendix C) that highlighted key concepts on caring for patients with chronic pain who take opioids. The reading provided a brief overview of the following: team member role and responsibilities, use of nonstigmatizing language, screening tools, morphine equivalent dose calculation, PMP report, overview of potential treatment

options for individuals with chronic pain, and the patient case. The presession reading was estimated to take 1-1.5 hours to complete.

*IPE session sign-up logistics:* Using SignUpGenius, students signed up for one of eight IPE sessions scheduled at varied times of day or evening to facilitate participation. Each session was capped at a total of 120 students, with a designated maximum number of students per health profession to ensure IP team composition. Student attendance varied, with approximately 85-100 students per session. Using the SignUpGenius list, students from different health professions were preassigned to IP teams. Teams typically included at least one student from a prescriber role (MD/DO/PA/DNP), one to two students from both PharmD and BSN programs, and one student from MSW or addiction studies programs. Due to academic scheduling conflicts, not all health profession students were able to participate in every session. To proactively address and prevent any technical issues, students received a session-specific Zoom link and additional login instructions via email 1 week prior to their designated session.

*Facilitators:* The IPE session facilitators were from diverse backgrounds mirroring student health profession participants. In total, 17 facilitators served in one or more of the following roles: lead facilitator, cofacilitator, small-group facilitator, and on-call facilitator. Each lead facilitator used the PowerPoint presentation (Appendix D) to guide the synchronous session, collaborated with information technology (IT) support staff on session delivery and technology challenges, and managed real-time issues. The cofacilitator assisted by presenting some of the content, monitoring the Zoom chat, and assisting with coordination of Zoom breakout room logistics. The cofacilitator and additional small-group facilitators (two per session) each visited five to six preassigned breakout rooms to ensure the SP was present, monitor team progress, respond to questions, and encourage full participation from all student learners. All sessions had an on-call facilitator who served as backup in the event of an unexpected facilitator absence or to help with other unforeseen circumstances. To standardize the student experience, we developed a facilitator guide (Appendix E) and hosted a 1-hour Zoom facilitator training 1 week prior to the first IPE session.

*SP training:* Washington State University College of Medicine Virtual Clinical Center staff recruited and trained a total of 25 SPs. Depending on the number of teams per session, 18-20 SPs participated in each IPE opioid session, with at least one backup SP available. Each SP completed a 1.5-hour training through Zoom. The SP case development tool (Appendix F) detailed

how the SPs should act and respond during the patient-team encounter, including specific behaviors the patient was expected to exhibit. SPs were also trained to provide teams with feedback regarding team interactions and how well they listened to, and demonstrated empathy toward, the patient.

*IPE session:* The 1-hour and 50-minute synchronous IPE session format featured substantial time for IP teams to collaborate and interview their SPs in online breakout rooms. The detailed logistics and session timeline are included in Appendix A, section 4. The PowerPoint presentation (Appendix D), with detailed facilitator notes, was used to guide the flow and ensure consistency between synchronous sessions. To provide students with a step-by-step checklist to follow during each breakout session, the instruction guide and interprofessional treatment plan (Appendix G) were posted in the Zoom chat. We also included a copy of the patient case and instructions for developing and submitting the IP treatment plan team assignment.

SPs waited in a separate Zoom waiting room until it was time for them to meet their student teams. At that time, the SPs joined the main Zoom session. They entered a designated SP breakout room where IT support staff guided all SPs to rename themselves using the patient's name and the rural town name, for example, Sam Jones (Twisp). Then, SPs entered their assigned rooms where the teams conducted a 20-minute interview. SPs exited the breakout rooms while student teams spent 15 minutes developing their treatment plan. At that time, SPs rejoined the breakout rooms to allow the teams to discuss the proposed plan with them and for them to provide feedback to the team.

Each IPE session concluded with a large-group debrief. Each IP team's designated notetaker was instructed to summarize their team's problem list and corresponding treatment plan options using the Zoom chat. Lead facilitators harnessed this interaction to emphasize key concepts related to developing an appropriate problem list and treatment plan options. Students were encouraged to ask additional questions, and answers were provided. This engagement was pivotal for students to remedy areas of confusion and achieve baseline understanding of an appropriate care plan for the patient.

*Videoconferencing logistics:* All students, facilitators, and SPs were connected virtually through Zoom; therefore, it was critical to secure IT support throughout the events. To facilitate communication, the core team met with IT support staff prior to the first IPE session to review session logistics and develop an IT support guide (Appendix H). At least one IT support person was

present during each session to function as the Zoom meeting host and troubleshoot technology issues. IT support staff were responsible for timekeeping and for broadcasting predetermined messages to keep students and facilitators on track during the two breakout sessions. IT support provided consistency across sessions and reduced faculty anxiety associated with coordinating a large-scale virtual event.

*Evaluation strategy:* Students were invited to participate in a voluntary survey pre-session (Appendix I) and post-session (Appendix J). Both surveys included questions to assess student confidence related to the learning outcomes surrounding opioids and chronic pain. In addition, the post-session survey included questions to evaluate the effectiveness of the training. A self-generated identification code was used to link pre- and post-session survey responses. Matched quantitative data were analyzed using paired *t* tests, with significance set at  $p < .05$ . Qualitative comments were themed and summarized. This project was certified exempt by the Washington State University Human Research Protection Program.

## Results

A total of 768 students from multiple institutions (Washington State University, Eastern Washington University, University of Washington, Pacific Northwest University, and Spokane Falls Community College) participated in the IPE trainings during February 2021. Student participants represented a variety of health profession programs: medicine (MD and DO,  $n = 207$ ), PA ( $n = 75$ ), nursing (BSN and DNP,  $n = 269$ ), pharmacy ( $n = 155$ ), social work ( $n = 60$ ), and addiction studies ( $n = 2$ ).

The response rates to the voluntary pre- and post-session surveys were 61% (468 of 768) and 50% (383 of 768), respectively. Pre- and post-session survey data were matched through self-generated identification codes for 32% of participants (247 of 768). Matched responses indicated that students' perceived confidence in knowledge and skills related to chronic pain and OUD significantly improved following participation in the IPE session (Table 1). Most students rated the IPE session favorably in program evaluation questions from the post-session survey (Table 2). When students were asked to rate the effectiveness of their learning using a virtual platform compared to prior in-person IPE activities, 63% reported that their learning during the session was either much more effective or somewhat more effective. Qualitative feedback suggested that students valued the opportunity to collaborate with other health professions students to care for a complex patient, while having more time to interact within the IP teams was identified as an area for improvement.

**Table 1.** Mean Scores of Matched Student Responses to Pre- and Postsession Surveys (N = 247)

| Survey Item                                                                                                                | M                  |                     | p     |
|----------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|-------|
|                                                                                                                            | Pre-session Survey | Post-session Survey |       |
| Student perceptions of knowledge and skills <sup>a</sup>                                                                   |                    |                     |       |
| My current understanding of my profession's role in providing care to patients who take opioids is:                        | 3.6                | 4.1                 | <.001 |
| My current understanding of the roles of other health care team members in providing care to patients who take opioids is: | 3.1                | 3.9                 | <.001 |
| My current knowledge about pain management is:                                                                             | 3.3                | 3.8                 | <.001 |
| My current knowledge about opioid use disorder is:                                                                         | 3.4                | 3.8                 | <.001 |
| Student perceptions of confidence (at this point in time, I am confident I can do the following....) <sup>b</sup>          |                    |                     |       |
| Utilize appropriate, nonstigmatizing language when caring for a patient who takes opioids                                  | 3.5                | 4.2                 | <.001 |
| Interpret screening tool results to assess a patient who takes opioids (i.e., pain, depression, opioid risk)               | 2.9                | 4.0                 | <.001 |
| Interpret a prescription monitoring program report                                                                         | 2.3                | 3.9                 | <.001 |
| Calculate a morphine equivalent dose                                                                                       | 2.2                | 3.6                 | <.001 |
| Evaluate a patient for potential opioid misuse                                                                             | 2.8                | 3.8                 | <.001 |
| Identify nonpharmacologic treatment options for pain                                                                       | 3.3                | 4.1                 | <.001 |
| Make appropriate referrals for opioid use disorder                                                                         | 2.6                | 3.8                 | <.001 |
| Design a patient-centered treatment plan for patients who take opioids                                                     | 2.5                | 3.9                 | <.001 |

<sup>a</sup>Rated on a 5-point Likert scale (1 = very poor, 2 = poor, 3 = fair, 4 = good, 5 = excellent).

<sup>b</sup>Rated on a 5-point Likert scale (1 = not at all confident, 2 = a little confident, 3 = somewhat confident, 4 = confident, 5 = very confident).

## Discussion

Our team developed and successfully implemented an IPE session via videoconferencing designed for students to practice team-based collaborative care of a patient with chronic pain who is taking opioids. Results of the pre- and postsession surveys highlight the success of the session in improving student understanding and confidence related to the learning objectives. Prior to the session, students were least confident in calculating a morphine equivalent dose and interpreting a PMP report. Following the session, the greatest improvement in confidence was seen in these two concepts, along with designing an IP patient-centered treatment plan.

Students found the online synchronous delivery method effective. Although the online format was used out of necessity due to the COVID-19 pandemic, the transition to this platform resolved

numerous logistical hurdles common to IPE. First, virtual delivery of the session allowed students from multiple campuses to participate, thereby increasing the number of health professions represented. In addition, online delivery eliminated previous challenges associated with in-person instruction, including insufficient space for 20 small groups to work together and the time required for students to move between large-group and small-group activities. The use of Zoom videoconferencing technology was largely successful and was well received by students, SPs, and faculty facilitators. As a result, we plan for future iterations of this IPE training to take place virtually even after in-person instruction resumes.

When adapting IPE for online delivery, we cannot overstate the value of partnering with IT support. Having an IT staff member present to act as the meeting host, assist with troubleshooting,

**Table 2.** Student Responses to Program Evaluation Questions From Postsession Survey

| Survey Item                                                                                                                          | N   | % Responding               |                                |                            |                                |                            |                       |
|--------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------|--------------------------------|----------------------------|--------------------------------|----------------------------|-----------------------|
|                                                                                                                                      |     | Strongly Agree             | Agree                          | Neither Agree nor Disagree | Disagree                       | Strongly Disagree          | Not Applicable        |
| The assigned student preclass introduction and background reading helped me feel prepared for the standardized patient interaction.  | 375 | 40                         | 43                             | 10                         | 3                              | 2                          | 2 <sup>a</sup>        |
| The opioid education activity was well organized.                                                                                    | 375 | 36                         | 55                             | 7                          | 2                              | 0                          |                       |
|                                                                                                                                      |     | <b>Much More Effective</b> | <b>Somewhat More Effective</b> | <b>About the Same</b>      | <b>Somewhat Less Effective</b> | <b>Much Less Effective</b> | <b>Not Applicable</b> |
| Compared to previous in-person interprofessional education activities, my learning during the interprofessional opioid activity was: | 375 | 41                         | 22                             | 21                         | 3                              | 1                          | 12 <sup>b</sup>       |
|                                                                                                                                      |     | <b>Excellent</b>           | <b>Good</b>                    | <b>Fair</b>                | <b>Poor</b>                    | <b>Very Poor</b>           |                       |
| Please rate the overall quality of your interprofessional opioid education experience.                                               | 370 | 38                         | 53                             | 9                          | 1                              | 0                          |                       |

<sup>a</sup>Not applicable: I did not complete the preclass introduction and background reading.

<sup>b</sup>Not applicable: I have no in-person interprofessional activities to compare it to.

and help with timekeeping during each Zoom session allowed faculty to focus on teaching and facilitation. Additionally, our team learned that in an online environment, communication with students and teams about expectations was crucial. We found it necessary to provide detailed instructions regarding expectations of the small-group discussions, including the identification of team roles such as team leader, notetaker, spokesperson, and lead interviewer. An unexpected lesson learned was the need to have all elements of the SP-team interactions scheduled and timed. Although we encouraged students and SPs to reserve the last few minutes of the SP interaction for feedback from the SP, many teams ran out of time. In future iterations, we plan to ensure dedicated time for SP feedback.

Despite the success of this online IPE session, several limitations and areas for improvement remain.

- **Multi-institutional delivery:** One of our goals, to include health professions students from multiple institutions, precluded the use of a single learning management system (LMS). Thus, we could not use typical LMS tools such as adaptive learning modules, the ability to monitor student completion of materials, file upload mechanisms, and streamlined ways to provide group feedback. We developed alternative processes, such as password-protected website access to pre-session materials and other solutions detailed below.
- **Assessment:** We designed this IPE session as a formative capstone activity for advanced learners who had previously participated in other IPE events. We collected IP treatment plans with the goal of evaluating learner outcomes, but managing submission, assessment, and feedback dissemination of 156 IP treatment plans via email was logistically challenging. Our team is currently using a Qualtrics submission portal and developing a generalizable rubric to assess and provide feedback on the IP treatment plans. Although individual team feedback is ideal, we believe the debrief structure at the end of the session allows students to remedy areas of confusion and achieve baseline understanding of an appropriate care plan for the patient. The IPE session materials could easily be adapted for summative assessment purposes by other institutions using them.
- **Standardizing student preparation across programs:** We did not map the extent to which participating health profession programs covered curricular topics related to opioids, pain management, OUD, stigma, and so on within their discipline-specific coursework. Instead, we relied

on faculty from the programs to verify that their learners had an introduction to treating patients with pain and/or who take opioids prior to participating in the IPE sessions. Institutions that adopt or adapt this IPE curriculum may want to align pre-session knowledge through curricular mapping or consult course directors to ensure that students have had prior exposure to the topics. Alternatively, institutions might consider assessing student competence regarding opioids and pain management prior to participation. We identified challenges in creating appropriate preparatory materials that would equip students with the same baseline knowledge regardless of prior coursework and respective health profession. After several iterations, our team created a customizable introduction and background reading (Appendix C) that includes the patient case resources, denoted as required or optional. These materials take 1-1.5 hours to complete. If this time commitment is not feasible for other institutions, programs could divide the IPE session content into smaller components. Also, some pre-session materials are specific to Washington State opioid prescribing regulations, so programs will need to customize content to align with their own state regulations.

- **Student attendance:** It was challenging to capture student attendance and participation in a virtual environment. Although students were assigned to teams with the goal of creating a diverse mix of health professionals, it was difficult to ensure representation of all health professions on every team, which may have led to inconsistency in the IP experience. While small-group facilitators observed student teams in order to encourage active participation by all team members, it was difficult to differentiate lack of participation from technical issues like low internet bandwidth. Our team is now using Zoom registration and attendance reports to better track the minutes of attendance of each student. Additionally, we are considering taking snapshots of student names per Zoom breakout room as an additional form of attendance verification.
- **Session timing:** Some teams reported feeling rushed during certain elements of the breakout sessions. Sharing a more detailed timetable that lists specific times ahead of the session may help students better manage their time.
- **Facilitator feedback:** We did not formally survey the facilitators during this iteration; therefore, the evaluation includes only learner feedback. Our team is now using facilitator feedback surveys to capture a more complete perspective.

As health care professionals and educators, we have a responsibility to educate our students about the harms related to opioid use and how to improve outcomes for people with chronic pain. This IPE opioid education activity provides the opportunity for students to experience team-based care by practicing communication skills and recognizing the value of input from multiple health profession disciplines when caring for a patient with chronic pain. While we engaged prelicensure students from MD, DO, PA, PharmD, BSN, DNP, MSW, and addiction studies programs, the IPE session may also be appropriate for use among students from other health professions.

Multiple versions of this IPE training have been created to align with various teaching/learning formats. Realizing that many programs may have limited resources for implementing SPs, the training materials for all versions, including the video files, are posted on our website.<sup>19</sup> An extensive resource list, curated by a team of opioid/pain management experts, is also provided on the website. Curriculum materials are available without charge to academic programs seeking to provide this learning opportunity for their IP learners.

## Appendices

- A. Curriculum Materials and Logistics.docx
- B. Sam Jones Patient Case.docx
- C. Introduction and Background Reading.docx
- D. Presentation.pptx
- E. Facilitator Guide.docx
- F. SP Case Development Tool.docx
- G. Instruction Guide and Interprofessional Treatment Plan.docx
- H. IT Support Guide.docx
- I. Pre-session Survey.docx
- J. Post-session Survey.docx

*All appendices are peer reviewed as integral parts of the Original Publication.*

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## Disclosures

None to report.

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## Prior Presentations

Bray BS, Remsberg CM, Richardson BA, Wilson ML. Interprofessional opioid education curriculum. Poster presented at: Association of American Medical Colleges Group on Regional Medical Campuses Regional Meeting (AAMC GRMC); April 15, 2019; Spokane, WA.

Richardson B, Bray B. Educating interprofessional teams on care of patients with chronic pain and opioid use. Presented at: Collaborating Across Borders, VII; October 20, 2019; Indianapolis, IN.

Remsberg CM, Bray BS, Richardson BA, Wilson M. An interprofessional opioid education training focused on providing team-based care. Poster presented virtually at: Association of Colleges of Pharmacy Annual Meeting, Virtual Pharmacy Education 2020; July 13-31, 2020.

Richardson B, Bray B, Remsberg CM, Wilson M, DeWitt D, Peterson S. Rethinking education on substance use through inter-professional education and rural community training (RESPECT). Presented virtually at: NEXUS Summit 2020 Online; August 6, 2020.

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Richardson B, Bray B. Educating interprofessional teams on care of patients with chronic pain and opioid use. Presented virtually at: Texas IPE Consortium Workshop; May 11, 2021.

Wilson M, Remsberg CM, Kobayashi R, et al. Combatting stigma surrounding chronic pain and substance use with interprofessional education. Presented virtually at: National Academy of Medicine's Stigma of Addiction Summit; June 10, 2021.

Remsberg CM, Bray BS, Richardson BA, et al. Virtual interprofessional opioid education sessions with standardized patients. Poster presented virtually at: Association of Colleges of Pharmacy Annual Meeting, Pharmacy Education 2021; July 19-22, 2021.

### Ethical Approval

The Washington State University Human Research Protection Program deemed further review of this project not necessary.

### Disclaimer

The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of, nor an endorsement by, the Centers for Disease Control and Prevention, the Department of Health and Human Services, the Health Resources and Services Administration, or the US Government.

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