

**Registered Nurses' Association of Ontario**  
*Pain: Prevention, assessment and management*  
**Fourth Edition**  
**February 2025**

**Reference list with open access links where available**

\*Links active as of February 1, 2025.

**Recommendation 1.0:**

Citation	Open Access URL (where applicable)
1. Elbers S, Wittink H, Konings S, et al. Longitudinal outcome evaluations of Interdisciplinary Multimodal Pain Treatment programmes for patients with chronic primary musculoskeletal pain: a systematic review and meta-analysis. <i>Eur J Pain</i> . 2022 Feb;26(2):310-35.	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC9297911/">https://pmc.ncbi.nlm.nih.gov/articles/PMC9297911/</a>
2. Claus BB, Stahlschmidt L, Dunford E, et al. Intensive interdisciplinary pain treatment for children and adolescents with chronic noncancer pain: a preregistered systematic review and individual patient data meta-analysis. <i>Pain</i> . 2022 Dec;163(12):2281-301.	N/A
3. Pieper MJC, van der Steen JT, Francke AL, et al. Effects on pain of a stepwise multidisciplinary intervention (STA OP!) that targets pain and behavior in advanced dementia: a cluster randomized controlled trial. <i>Palliat Med</i> . 2018 Mar;32(3):682-92.	N/A
4. Balice-Bourgeois C, Zumstein-Shaha M, Simonetti GD, Newman CJ. Interprofessional collaboration and involvement of parents in the management of painful procedures in newborns. <i>Front Pediatr</i> . 2020 Jul 22;8:394.	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC7390884/">https://pmc.ncbi.nlm.nih.gov/articles/PMC7390884/</a>
5. Bongiovanni A., Recine F., Fausti V., et al. Ten-year experience of the multidisciplinary Osteoncology Center. <i>Support Care Cancer</i> . 2019 Jan 16;27(9):3395-402.	N/A
6. Masters S, Hogarth L. Interdisciplinary spinal pain clinics in primary care: outcomes from one service. <i>Aust J Gen Pract</i> . 2019 May;48(5):308-13.	<a href="https://www1.racgp.org.au/ajgp/2019/may/interdisciplinary-spinal-pain-clinics-in-primary-c/">https://www1.racgp.org.au/ajgp/2019/may/interdisciplinary-spinal-pain-clinics-in-primary-c/</a>
7. Witteveen H, van den Berg P, Vermeulen G. Treatment of menstrual migraine; multidisciplinary or mono-disciplinary approach. <i>J Headache Pain</i> . 2017;18(1):45.	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC5393978/">https://pmc.ncbi.nlm.nih.gov/articles/PMC5393978/</a>

### Recommendation 2.0:

Citation	Open Access URL (where applicable)
1. Lioffi C, Failo A, Schoth DE, et al. The effectiveness of online pain resources for health professionals: a systematic review with subset meta-analysis of educational intervention studies. <i>Pain</i> . 2018 Apr;159(4):631-43.	N/A
2. Moehl K, Wright RM, Shega J, et al. How to teach medical students about pain and dementia: e-learning, experiential learning, or both? <i>Pain Med</i> . 2020 Oct;21(10):2117-22.	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC7820358/">https://pmc.ncbi.nlm.nih.gov/articles/PMC7820358/</a>
3. Colleary G, O'Sullivan K, Griffin D, et al. Effect of pain neurophysiology education on physiotherapy students' understanding of chronic pain, clinical recommendations and attitudes towards people with chronic pain: a randomised controlled trial. <i>Physiotherapy</i> . 2017 Dec;103(4):423-9.	N/A
4. Poulsen M, Friesgaard KD, Seidenfaden S, et al. Educational interventions to improve medical students' knowledge of acute pain management: a randomized study. <i>Scand J Pain</i> . 2019;19(3):619-22.	<a href="https://www.degruyter.com/document/doi/10.1515/sjpain-2019-0036/html">https://www.degruyter.com/document/doi/10.1515/sjpain-2019-0036/html</a>
5. Kelly MA, Slatyer S, Myers H, et al. Using audio-visual simulation to elicit nursing students' noticing and interpreting skills to assess pain in culturally diverse patients. <i>Clin Simul Nurs</i> . 2022 Oct;71:31-40.	N/A
6. Hovland C, Milliken B, Niederriter J. Interprofessional simulation education and nursing students: assessing and understanding empathy. <i>Clin Simul Nurs</i> . 2021 Nov;60:25-31.	N/A

### Recommendation 3.0:

Citation	Open Access URL (where applicable)
1. Lioffi C, Failo A, Schoth DE, et al. The effectiveness of online pain resources for health professionals: a systematic review with subset meta-analysis of educational intervention studies. <i>Pain</i> . 2018 Apr;159(4):631-43.	N/A
2. Farshbaf-Khalili A, Jasemi M, Seyyedzavvar A. Comparing the effect of electronic and lecture education of pain management on the knowledge, attitude, and practice of nurses: A	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC8641703/">https://pmc.ncbi.nlm.nih.gov/articles/PMC8641703/</a>

randomized-controlled trial. <i>J Educ Health Promot.</i> 2021;10(1):374.	
3. Ozawa M, Yokoo K, Sumiya T, Kawano R. Effectiveness of e-learning on neonatal nurses' pain knowledge and pain measurement skills: a pilot study. <i>Adv Neonatal Care.</i> 2022 Apr;22(2):132-9.	N/A
4. Eaton LH, Godfrey DS, Langford DJ, et al. Telementoring for improving primary care provider knowledge and competence in managing chronic pain: a randomised controlled trial. <i>J Telemed Telecare.</i> 2020 Feb;26(1-2):21-7.	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC10802791/">https://pmc.ncbi.nlm.nih.gov/articles/PMC10802791/</a>
5. Yoo J, De Gagne JC, Kim HJ, Oh J. Development and evaluation of a web-based acute pain management education program for Korean registered nurses: a randomized controlled trial. <i>Nurse Educ Pract.</i> 2019 Jul;38:7-13.	N/A
6. MacDonell-Yilmaz RE, Murillo A, Welch JG. Pediatric opioid analgesia self-instruction system (PedOASIS): an effective education tool. <i>Pediatr Blood Cancer.</i> 2022;69(Suppl 2):S115.	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC10133041/">https://pmc.ncbi.nlm.nih.gov/articles/PMC10133041/</a>
7. Al-Maaitah EI, Abdel Razeq NM, Obeidat HM. Nurses' improved provision of infants' procedural pain assessment and management with non-pharmacological interventions following a training program in Jordan. <i>J Neonatal Nurs.</i> 2023;29(2):356-60.	N/A
8. Kamm AM, Liu JB, Demitroulas K, et al. An interdisciplinary approach to safe opioid prescribing and administration for surgical patients at an academic medical center. <i>J Clin Nurs.</i> 2022 Feb;31(3-4):454-63.	N/A
9. Salim NA, Tuffaha MG, Brant JM. Impact of a pain management program on nurses' knowledge and attitude toward pain in United Arab Emirates: experimental-four Solomon group design. <i>Appl Nurs Res.</i> 2020 Aug;54:151314.	N/A
10. Leung YW, Wong J, Kiteley C, et al. Addressing educational needs in managing complex pain in cancer populations: evaluation of APAM: an online educational intervention for nurses. <i>Am J Hosp Palliat Med.</i> 2019 Jul;36(7):587-97.	N/A
11. Jacobs ZG, Elnicki DM, Perera S, Weiner DK. An e-learning module on chronic low back	<a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC5998956/">https://pmc.ncbi.nlm.nih.gov/articles/PMC5998956/</a>

<p>pain in older adults: effect on medical resident attitudes, confidence, knowledge, and clinical skills. <i>Pain Med.</i> 2018 Jun;19(6):1112-20.</p>	
<p>12. Liu X., Li L., Wang L., et al. Implementation and evaluation of a pain management core competency education program for surgical nurses. <i>Int J Nurs Sci.</i> 2021 Jan 10;8(1):51-7.</p>	<p><a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC7859541/">https://pmc.ncbi.nlm.nih.gov/articles/PMC7859541/</a></p>
<p>13. Chu TL, Wang J, Lin HL, et al. Multimedia-assisted instruction on pain assessment learning of new nurses: a quasi-experimental study. <i>BMC Med Educ.</i> 2019;19(1):68.</p>	<p><a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC6398238/">https://pmc.ncbi.nlm.nih.gov/articles/PMC6398238/</a></p>
<p>14. Anderson D., Zlateva I., Davis B., et al. Improving pain care with project ECHO in community health centers. <i>Pain Med.</i> 2017;18(10):1882-9.</p>	<p><a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC5914304/">https://pmc.ncbi.nlm.nih.gov/articles/PMC5914304/</a></p>
<p>15. Kang D., Zhang L., Jin S., et al. Effectiveness of palliative care simulation in newly hired oncology nurses' training. <i>Asia Pac J Oncol Nurs.</i> 2022 Mar;9(3):167-73.</p>	<p><a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC9052844/">https://pmc.ncbi.nlm.nih.gov/articles/PMC9052844/</a></p>
<p>16. Carlin L., Zhao J., Dubin R., et al. Project ECHO telementoring intervention for managing chronic pain in primary care: insights from a qualitative study. <i>Pain Med.</i> 2018 Jun;19(6):1140-6.</p>	<p><a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC5998945/">https://pmc.ncbi.nlm.nih.gov/articles/PMC5998945/</a></p>
<p>17. Ball S, Wilson B, Ober S, Mchaourab A. SCAN-ECHO for pain management: implementing a regional telementoring training for primary care providers. <i>Pain Med.</i> 2018 Feb;19(2):262-8.</p>	<p><a href="https://academic.oup.com/painmedicine/article/19/2/262/3835967?login=false">https://academic.oup.com/painmedicine/article/19/2/262/3835967?login=false</a></p>