

Patient perceptions of a pharmacist-led interprofessional chronic pain clinic

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Background

Chronic noncancer pain (CNCP) is an issue for health systems around the world, affecting a substantial proportion of the population. In Canada, it is estimated that 1 in 5 people lives with CNCP.¹ This condition can have a severe impact on quality of life, limiting individuals' ability to work, complete activities of daily living and participate in leisure activities. CNCP can also have profound mental health implications.² Individuals with CNCP often experience depression, anxiety, sleep disturbances and emotional distress.² The opioid crisis has also had a major effect on the treatment of CNCP. The increased awareness of the limited benefit of long-term opioid therapy in CNCP treatment combined with the well-documented risks of opioids, including opioid toxicity, has led to stricter prescribing guidelines, making it challenging for patients living with pain to access these medications.³⁻⁵

CNCP management often requires an interprofessional approach not only to address the medical needs of patients but to also offer the mind- and movement-based interventions that are essential in the management of this condition.^{1,4} However, access to appropriate and timely treatment is a challenge in many countries. In Canada, there is a shortage of pain specialists and interprofessional chronic pain clinics, especially in rural and remote regions.¹ This limited access to specialized pain services results in long delays in treatment, leaving many people with inadequate pain management for long periods of time or potentially no treatment at all.

The University of Saskatchewan Chronic Pain Clinic (UCPC) opened in March 2020 to improve access to interprofessional CNCP care by using a unique pharmacist-led, interprofessional team approach.⁶ The model relies heavily on the roles of health professionals that are not in scarce supply and less on difficult-to-recruit specialist physicians. The UCPC team includes 2 full-time equivalent (FTE) pharmacists, 2

FTE social workers, 2 FTE physical therapists and 0.4 FTE physicians.

The patient care model used at the UCPC has been described elsewhere.⁶ The UCPC pharmacist guides the patient through their experience and takes responsibility for communicating with the patient's primary care provider. The UCPC does not take over prescribing and instead provides guidance and support to the patient's primary care provider, who continues to prescribe medications. Most patients have multiple individual and group appointments with the UCPC pharmacist, social worker and physical therapist. These appointments occur virtually or in person depending on the patient's preference. The UCPC physician infrequently sees patients but is available as a resource to the team to discuss individual patient cases and to provide mentorship and advice. Additionally, the UCPC offers a referring health provider mentorship program. After referring a patient, health providers are offered one-on-one discussion(s) with the UCPC pharmacist and physician, who provide patient-specific mentorship and education on chronic pain management and/or opioid prescribing. The clinic also offers a variety of patient group education sessions on a regular basis, which are delivered virtually and offered to all patients immediately upon referral, while they wait for their initial appointment. The UCPC aims to create and implement an individualized care plan for each patient with the goal of discharging them back into the care of their primary care provider after approximately 6 months. The purpose of this study was to describe the experiences of patients who were referred to the UCPC.

Methods

This study used a paper-based postal survey with the primary outcome of determining patient self-reported changes in health status after being referred to the UCPC. All patients

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aged 18 years or older who were referred to the UCPC between January and December 2021 and who attended at least 1 appointment were included in the study. The questionnaire that was mailed to participants included 28 Likert scale questions aimed at collecting information about patient perceptions and experiences with the UCPC, along with any changes to their health status that occurred as a result of the UCPC. It also included 3 open-ended questions that elicited free-text responses regarding what patients liked best, what could be improved and additional comments. The questionnaire was developed based on previously published studies and using the expertise of the UCPC external advisory committee. The questionnaire was pretested on 10 adults without CNCP to ensure readability and clarity. The questionnaire took less than 5 minutes to complete in the pretest.

Questionnaires were mailed to potential participants approximately 3 months after attending their initial appointment at the UCPC, when it was expected that they would have experienced all the program's services. Survey packages included self-addressed stamped envelopes to return completed questionnaires. Patients who returned a questionnaire were entered in a draw for a \$100 gift card as an incentive to participate. Quantitative data (i.e., answers to Likert scale questions) were entered into a Microsoft Excel spreadsheet and analyzed using descriptive statistics. Qualitative data from the open-ended questions were analyzed using thematic analysis by the Canadian Hub for Applied and Social Research (CHASR) at the University of Saskatchewan, which has extensive experience with this methodology. The protocol was approved by the University of Saskatchewan Research Ethics Board.

Results

A total of 36.2% ($n=50/138$) of participants responded to the survey. Not all participants answered every question, so response rates may vary for individual questionnaire items. The mean age of respondents was 60.6 years and the majority were female (70%, $n=35/50$). Most had heard about the UCPC after being referred by their physician (60%, $n=30/50$) or other health professional (20%, $n=10/50$), and others (20%, $n=10/50$) became aware of the clinic from family or friends.

Respondents were asked about their interactions with the clinicians at the UCPC and their satisfaction with the overall experience. All the patients agreed (16.3%, $n=8/49$) or strongly agreed (83.7%, $n=41/49$) that the UCPC clinicians listened to them, and all the participants agreed (16%, $n=8/50$) or strongly agreed (84%, $n=42/50$) that they were treated with dignity and respect. In addition, 94% ($n=47/50$) agreed or strongly agreed that they were satisfied with their overall experience, and 90% ($n=45/50$) stated that they would recommend the UCPC to friends or relatives.

When asked how their overall health status changed since interacting with the UCPC on the Patient Global Impression of Change (PGIC) scale, 68% ($n=34/50$) of patients reported

an improvement, while 6% ($n=3/50$) reported feeling worse (Figure 1). Respondents were also asked about changes with respect to specific aspects of their health, and 46.9% ($n=23/49$) agreed or strongly agreed that their ability to complete daily activities had improved, 43.8% ($n=21/48$) agreed or strongly agreed that their overall mood had improved and 37.5% ($n=18/48$) agreed or strongly agreed that their pain severity had improved (Figure 2).

When asked about medication use, 28.6% ($n=14/49$) of patients agreed or strongly agreed that they experienced fewer side effects from their pain medications after coming to the UCPC, and more than three-quarters of respondents (75.5%, $n=37/49$) agreed or strongly agreed that their knowledge about their pain medications improved after their experience with the UCPC. Finally, over half of patients (58%, $n=29/50$) agreed or strongly agreed that they were more prepared to engage in active strategies to self-manage their pain.

The open-ended free text questions elicited many opinions regarding what people liked about the clinic. Most of the comments related to an appreciation for "feeling heard or seen," stating that the service was friendly, that the team was knowledgeable and that the information they received was valuable. There were also several comments about the sense of hope that was provided, along with an improved ability to cope with their pain. Many respondents also mentioned the effectiveness and the value of the team-based approach used at UCPC.

Comments related to what could be improved were heterogeneous. Some patients felt that there needed to be more advertising, awareness and external support for the program. Others balked at the virtual care (e.g., due to limited access to high-speed Internet in rural regions and not being computer savvy). In addition, some suggested the need for additional health professionals to be added to the team, such as massage therapists. The final open-ended question related to eliciting additional comments and resulted in uniformly positive responses, with comments about excellent listening, good clinical results and highlights of certain team members by name who provided exceptional care.

Discussion

Previous research has consistently described the significant benefits of interprofessional chronic pain clinics, including the model of care used at UCPC.⁷⁻⁹ This patient experience survey adds valuable data to the existing literature. The patient self-perceived improvements in overall health status, ability to complete daily activities, mood, pain severity and medication side effects described in this study provide additional evidence that the model of pharmacist-led chronic pain care used at UCPC is an effective alternative to traditional physician-led models. It has been previously documented that it is difficult for any clinical intervention to make even small improvements in the health status of people living with CNCP.¹⁰ Consequently, it is noteworthy that the patients who responded to this survey

FIGURE 1 Patients’ Global Impression of Change (PGIC) scale, % (n = 50)

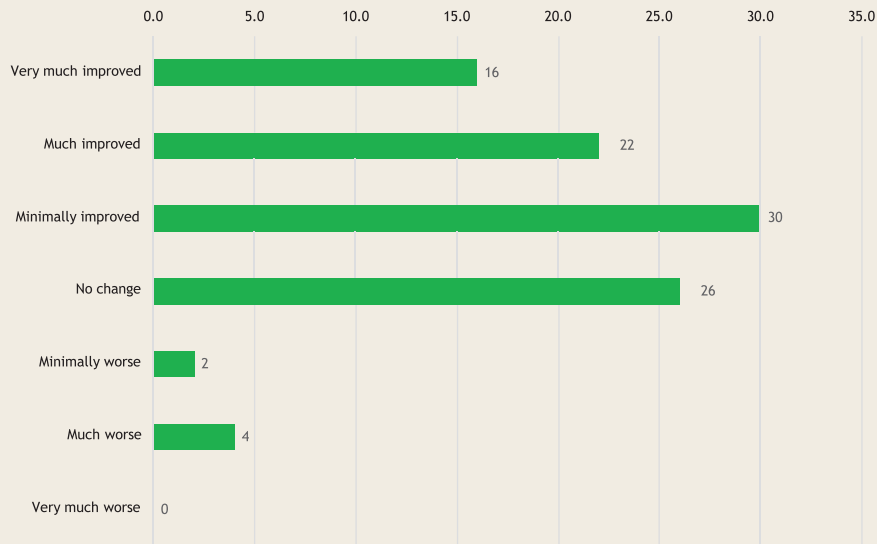
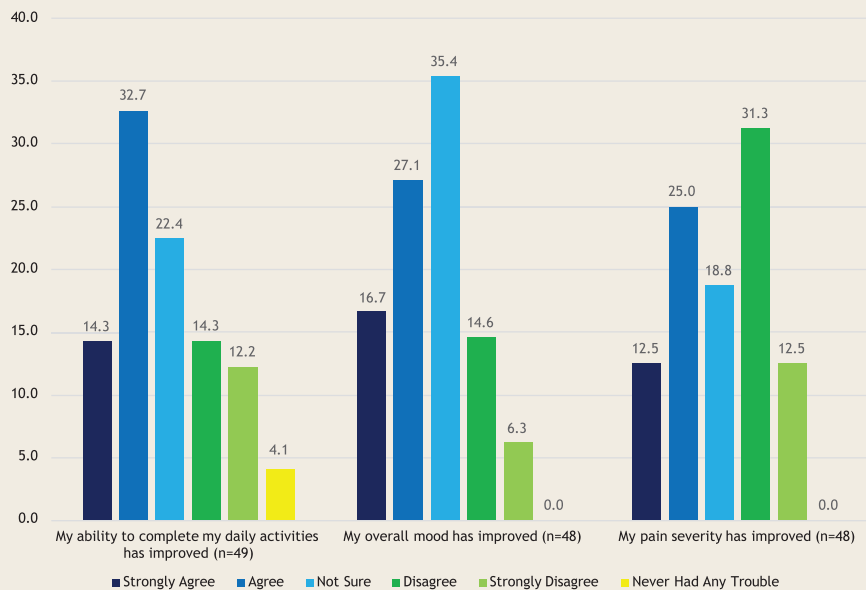


FIGURE 2 Improvements after referral, %



reported improvements in multiple areas of their health. It is also difficult to measure the impact of interventions targeting chronic pain due to the absence of an objective laboratory test or physical exam finding.¹¹ Measurement-based care tools, such as pain severity scores, are also challenging research instruments for measuring changes in CNCP over time, since patients’ pain severity can fluctuate significantly on an hourly and daily basis. Consequently, there is value in documenting patient self-reported improvements in global health outcomes using a survey methodology.¹²

The results of this study are consistent with previously published research on the UCPC model of care, which strengthens the trustworthiness of the findings in this study.⁷ A retrospective chart audit of the UCPC from 2023 found that, on average, patients experienced “minimal improvement” in overall health status, using a health provider assessed global measure (i.e., Clinician Global Impression–Improvement scale).⁷ This is consistent with the findings of this survey, which found that 68% of participants self-reported an improvement in overall health status. The previously published chart audit also found

that, on average, UCPC patients had their opioid doses significantly reduced or switched to buprenorphine/naloxone, which could explain the findings of this survey, which reported that UCPC patients experienced fewer side effects from their pain medications.⁷

The responses from the Likert scale questions are supported by the data in the open-ended items at the end of the questionnaire, which also offer a glimpse into how the UCPC connects with patients to enact change in such a challenging condition. Many of the comments focused on the concept of empathy and person-centred care, with patients describing how they felt heard, listened to and seen by the UCPC team. Respondents frequently stated that, while their pain might not have improved much, they left the UCPC with a sense of hope for the future, more resilience and an improved ability to cope with their pain.

The demographics of the patients who responded to the survey are similar to those of the overall clinic population, suggesting the sample is representative of UCPC patients.⁷ This study cannot confirm if the improvements reported by patients will be sustained over time. However, the finding that over half

of survey respondents stated that they were more prepared to engage in active strategies to self-manage their pain after coming to the UCPC suggests that patients were motivated and prepared to use the skills and tools acquired from the program. Additional limitations of the findings of this study, which are common in patient experience surveys, include the relatively small sample size, a response rate below 40% and the fact that the study took place in a single clinical site, suggesting that the results may not translate broadly to other regions of the world and that future studies are necessary to confirm these findings.

Conclusion

This patient experience survey found that the pharmacist-led interprofessional model of care used by the UCPC resulted in improvements in overall patient health status, ability to complete daily activities, mood, pain severity and medication side effects. These important data suggest this unique team-based model for CNCP management is a viable alternative to existing physician-led models. Future research should aim to confirm these findings, preferably using a randomized, controlled trial. ■

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References

1. The Canadian Pain Task Force. *Chronic pain in Canada: laying a foundation for action*. Ottawa (ON): Health Canada; 2019. Available: <https://www.canada.ca/content/dam/hc-sc/documents/corporate/about-health-canada/public-engagement/external-advisory-bodies/canadian-pain-task-force/report-2019/canadian-pain-task-force-june-2019-report-en.pdf> (accessed Jul. 20, 2023).
2. Cohen SP, Vase L, Hooten WM. Chronic pain: an update on burden, best practices and new advances. *Lancet Br Ed* 2021;397(10289):2082-97.
3. Karmali RN, Bush C, Raman SR, Campbell CI, Skinner AC, Roberts AW. Long-term opioid therapy definitions and predictors: a systematic review. *Pharmacoepidemiol Drug Saf* 2020;29(3):252-69.
4. Busse JW, Craigie S, Juurlink DN, et al. Guideline for opioid therapy and chronic noncancer pain. *CMAJ* 2017;189(18):E659.
5. Baldini A, Von Korff M, Lin EHB. A review of potential adverse effects of long-term opioid therapy: a practitioner's guide. *Prim Care Companion CNS Disord* 2012;14(3):PCC.11m01326.
6. Halpape K, Jorgenson D, Ahmed A, et al. Pharmacist-led strategy to address the opioid crisis: the Medication Assessment Centre Interprofessional Opioid Pain Service (MAC iOPS). *Can Pharm J (Ott)* 2022;155(1):21-5.
7. Jorgenson DJ, Halpape K. Evaluation of a pharmacist-led interprofessional chronic pain clinic in Canada. *Can Pharm J (Ott)* 2023;156:265-71.
8. Banerjee S, Argáez C. *Multidisciplinary treatment programs for patients with chronic non-malignant pain: a review of clinical effectiveness, cost-effectiveness and guidelines*. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2017. CADTH Rapid Response Reports. Available: <http://europepmc.org/books/NBK525038> (accessed Jul. 20, 2023).
9. Gatchel RJ, McGeary DD, McGeary CA, Lippe B. Interdisciplinary chronic pain management: past, present and future. *Am Psychol* 2014;69(2):119-30.
10. Gauntlett-Gilbert J, Brook P. Living well with chronic pain: the role of pain-management programmes. *BJA Educ* 2018;18(1):3-7.
11. Dansie EJ, Turk DC. Assessment of patients with chronic pain. *Br J Anaesth* 2013;111(1):19-25.
12. Dworkin RH, Turk DC, Farrar JT, et al. Core outcome measures for chronic pain clinical trials: IMMPACT recommendations. *Pain* 2005;113(1-2):9-19.