# Community Engagement Integral to Reimagining Rural and Remote Physiotherapy in Saskatchewan: Findings from a World Café Multi-Stakeholder Event

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# ABSTRACT

*Purpose:* To provide recommendations to improve access to physiotherapy services in underserved rural, remote, and Indigenous communities across Saskatchewan. *Methods:* Through a World Café facilitated discussion, 55 multi-stakeholder participants (including facilitators) discussed ways to improve access to physiotherapy services in rural, remote, and Indigenous communities in Saskatchewan. Qualitative description happened through qualitive content analysis from data captured during the World Café facilitated discussion. *Results:* Community Engagement was found to be a central code, along with the interrelated categories: Training Program and Student Experience; Recruitment of Physiotherapists; Retention and Physiotherapy Practice; Community and Team-Based Models of Care; Virtual Care and Technology. *Conclusions:* Recommendations to improve access to physiotherapy services in Saskatchewan spanned from targeted recruitment and training of physiotherapy students to supporting physiotherapists who practice in geographically isolated environments. Community engagement was highlighted as necessary to ensure effective, sustainable, and appropriate measures to better train, recruit, retain, and support physiotherapists and access to physiotherapy services in rural and remote areas across Saskatchewan.

Key Words: health services accessibility; physical therapy; rural health.

# RÉSUMÉ

**Objectif**: proposer des recommandations pour améliorer l'accès aux services de physiothérapie dans les régions rurales, éloignées et autochtones mal desservies de la Saskatchewan. **Méthodologie**: par des échanges de type café conversationnel (*World Café*), 55 participants multipartites (y compris les facilitateurs) ont parlé des moyens d'améliorer l'accès aux services de physioth, rapie dans les communaut, s rurales, ,loign, es et autochtones de la Saskatchewan. La description qualitative est provenue de l'analyse de contenu qualitative des donn, es saisies pendant le caf, conversationnel. **Résultats**: l'engagement communautaire s'est révélé un code central, de même que les catégories interreliées : programme de formation et expérience des étudiants; recrutement des physiothérapeutes; rétention et pratique de la physiothérapie; modèles de soins communautaires et en équipe; soins virtuels et technologie. **Conclusions**: les recommandations pour améliorer l'accès aux services de physiothérapie en Saskatchewan allaient du recrutement et de la formation ciblés des étudiants en physiothérapie au soutien des physiothérapeutes qui exercent dans des environnements isolés sur le plan géographique. Les chercheurs ont souligné l'importance de l'engagement communautaire pour garantir l'adoption de mesures efficaces, soutenues et appropriées en vue de mieux former, recruter, retenir et soutenir les physiothérapeutes et d'assurer un meilleur accès aux services de physiothérapie dans les régions rurales et éloignées de la Saskatchewan.

Mots-clés : accessibilité aux services de santé; physiothérapie; santé rurale

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**Contributors:** Al participated in the conceptual planning of the project, led data analysis, writing of the manuscript and approved the final version. SL participated in the conceptual planning of the project, the collection of data, data analysis, writing of the manuscript and approved the final version. KC participated in data collection and analysis, writing of the manuscript and approved the final version. WP participated in the conceptual planning of the project, data collection, writing of the manuscript and approved the final version. WW participated in the conceptual planning of the project, data collection, writing of the manuscript and approved the final version. BP participated in the conceptual planning of the project, data collection, writing of the manuscript and approved the final version. BB contributed to all steps of the project, from conceptualization to data collection, analysis and writing of the manuscript.

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Rural and remote residents have unique challenges when it comes to the multi-dimensional nature of access to health care, yet often have higher need for health care including physiotherapy.1 For example, rural and remote populations are approximately 30% more likely to have chronic back pain,<sup>2</sup> yet people living in rural and remote parts of Canada are less likely than urban dwellers to report seeking care with physiotherapists.<sup>3</sup> Rural and remote communities are geographic locations outside of major urban centres and have populations of <10,000.4 Remote communities are geographically further away from urban centres compare to rural communities and are often isolated from certain services. In Saskatchewan, approximately 36% of the population lives in rural or remote areas, but only 11.2% of physiotherapists work in these communities.<sup>5</sup> Notably, 16.3% of the Saskatchewan population is Indigenous and 46.2% of Indigenous peoples live in rural areas,6 which warrants additional consideration to the unique needs of Indigenous peoples and the historical, psychosocial, cultural, and environmental factors that influence health outcomes and access.7 Documented challenges faced by Saskatchewan residents in accessing physiotherapy care include but are not limited to: travel,<sup>8</sup> cost, and wait times.<sup>1</sup> We also know there is potential geographic inequity across Saskatchewan in regard to access and availability of physiotherapists, in both public and private settings.<sup>3,5</sup> There are multiple strategies to overcome access barriers, and these strategies have been demonstrated in other jurisdictions, including community-directed initiatives,9 multi-disciplinary care models,<sup>10</sup> and virtual care models.<sup>11,12</sup> To address the complexities of reduced access to physiotherapy care in rural and remote communities, our team held an interactive event titled "Re-Imagining Rural and Remote Physiotherapy in Saskatchewan." The purpose of this event was to engage a range of stakeholder participants to collaboratively develop recommendations to improve access to physiotherapy services in underserved rural, remote, and Indigenous communities across the province.

# METHODS

### Approach and framework

We employed a qualitative description approach<sup>13</sup> from a World Café method<sup>15</sup> of facilitated discussion at our interactive event.<sup>14</sup> This collaborative and conversational process used to support knowledge exchange<sup>14,15</sup> allows participants to provide their unique perspectives and expertise on specific topics as well as the opportunity to learn from other participants. Discussion centred on addressing barriers and leveraging enablers to improve access to physiotherapy services in rural, remote, and Indigenous Saskatchewan communities. We conducted qualitative content analysis<sup>16</sup> of data collected from the World Café. This research received retrospective ethics exemption from the University of Saskatchewan Institutional Research Ethics Board. For framing the discussion of our manuscript, we used Levesque's Conceptual Framework of Patient-Centered Access to Health Care to demonstrate the multidimensional nature of access which considers health systems and populations.<sup>17</sup> We applied the different dimensions of access outlined by this framework to help guide our discussion and recommendations.

# **Research team and facilitators**

All authors were associated with the University of Saskatchewan, School of Rehabilitation Science; Authors 2 and 7 are full-time faculty members, author 3 is an adjunct professor, and authors 4 and 5 were full-time staff in the roles of academic lead clinical education and community affairs and clinical coordinator, respectively. All authors except 1 are physical therapists with experience ranging from 1 to 40 years of practice (mean of 21 years). Authors 1, 2, 3, and 7 have experience in rural and remote practice and/or extensive research experience in diverse models of physiotherapy care, physiotherapy training, and access to health services, including physiotherapy. All authors have experience in Indigenous community engagement, research, and/or clinical practice. All authors except for 1 and 6 were also World Café facilitators. Table topics were developed by facilitators from known challenges, barriers or findings in research related to access to physiotherapy services based on facilitator experience and expertise. Facilitators had knowledge on their table topic from clinical experience and/or research specialization, to ensure they could appropriately engage in conversation. Facilitators were provided with a facilitator guide (see Appendix 1) to help support them with common discussion processes and ensure clear and robust discussion was occurring. Facilitators took notes, clarified comments, and guided the discussion with all participants at their table during each 15-minute round.

#### Participants

Our team put together a diverse list of event invitees with the goal of having multiple perspectives represented. Those unable to attend were asked to pass along their invite to a colleague or peer from their organization who may be interested in participating. No inclusion criteria were enforced to determine participation from a secondary invite. Participants (55) from diverse professional and personal backgrounds (knowledge users, decision and policy makers, Indigenous and non-Indigenous healthcare providers, patients/ people from rural and remote communities with experience seeking care with physiotherapists, Master of Physical Therapy Students, and remote Indigenous community members) took part in our World Café event. Participants were not publicly labelled by category (knowledge user, clinician, etc.) on the event day. Please see Appendix 2, participant affiliations represented.

#### Procedures/ description of event

Our in-person event day started with presentations and panel discussions that provided foundational context for the afternoon World Café session. For details on the event, panel presenters, and topics, please refer to our event report.<sup>18</sup> To understand challenges and supports in improving access to physiotherapy services from a multi-stakeholder perspective, we implemented a World Café method of facilitated discussion.<sup>15</sup> Participants were assigned to a predetermined table, with the goal of maximizing diversity in representation of community members, researchers, clinicians, administrators. There were five circular tables around the room and there were approximately 11 participants per table for the first round. Each table had a designated topic: recruitment and retention; student training and experience; leveraging technology; engaging teams and communities; and thinking outside the box. Discussions were focused on challenges and facilitators regarding physiotherapy training and access to physiotherapy services in the province. Participants went through five rounds of 15-minute discussions. Participants were asked to move to at least three of the five tables and were encouraged to go to tables with topics they may not have been familiar with to foster learning from fellow participants with different experiences, perspectives, and backgrounds. Participants completed all five rounds, and some stayed at the same table for more than one round to continue to contribute to the discussion topic, so diversity at every table for every round may not have been maintained. At the beginning of each round, facilitators provided a brief synthesis of previous group discussions based on flipchart notes and verbal discussion to provide context for subsequent discussions. As participants moved through the rounds, discussion incorporated and expanded on the previous group's main points, guided by the facilitator.

#### **Data collection**

Each facilitator had a flipchart and notepad to record discussion from each round. Flipcharts were also used to confirm important points, examples, and perspectives with participants. Each facilitator provided a synthesis of previous groups discussions aimed to build and deepen subsequent discussion rounds. Facilitators also provided a discussion summary document at the end of the event that contextualized and organized flipchart notes and discussion that occurred.

# Data analysis

Qualitative content analysis was undertaken using World Café facilitator flipchart and summary notes.<sup>16</sup> Initial inductive thematic coding was conducted first by author 1 to identify general codes and coding scheme through analysis from each table's flipchart and facilitator summary notes. Codes were collated and subsequently analyzed to determine overarching categories and subcategories. Author 2 and 7 also analyzed the flipchart notes and facilitator summaries and several iterative discussions between authors 1, 2, and 7 happened to confirm the coding scheme and organization of categories based on consensus. Author 1 who undertook most of the initial coding was not involved in creating the table topics nor facilitated or participated during the World Café discussion. To clarify certain categories and sub-categories and context during analysis, discussions with the World Café facilitators occurred to ensure the findings accurately represented the discussion that occurred. Under each category, sub-categories and examples of barriers and responsive actions to improve physiotherapy services in Saskatchewan were organized by author 1, 2, and 7. The other World Café facilitators (3) reviewed and approved the final code set, categories, and sub-categories. See Appendix 3 for expanded results that include categories, sub-categories, and examples.

# RESULTS

Many challenges, barriers, and opportunities to improve access to physiotherapy in rural, remote, and Indigenous communities in Saskatchewan were identified by participants during our World Café. Community engagement was found to be a central code among the results described below. The definition of "community" is multi-dimensional and includes distinct geographical places but also refers to both cultural and spiritual communities as related to Indigenous community contexts. Further, "community" for the scope of this paper also considers where the community physiotherapists work and provide care (physical space, colleagues, supports, and resources). Community engagement on multiple levels is required to ensure changes in access and provision of physiotherapy services are acceptable and responsive. This also includes community capacity building and engagement for long-term success. The central code and overarching categories are presented in Figure 1 and expanded sub-categories and examples are shown in more detail in Appendix 3. The World Café discussions were not audio-recorded and therefore no direct quotes were captured. Below are details and some examples pertaining to each category.

#### Student training and experience

Increasing the number of seats in the only Master of Physical Therapy (MPT) program in the province, offered at the University of Saskatchewan, with targeted recruitment of trainees from rural and remote areas, was a main recommendation identified by participants. Emphasis on positive student experiences, in both community and clinical settings, during clinical placements was also recommended to increase interest and uptake in rural and remote physiotherapy practice. It was discussed that students often feel isolated in rural clinical placements. Community capacity building and engagement were



Figure 1 World cafe central code, categories, and sub-categories.

recommended not only to support the fostering of connections between students and the community outside of their clinical experience but to also leverage possible local supports to reduce the burdens placed on students that are associated with rural and remote clinical placements (travel, cost of accommodation, etc.). Participants also identified that targeted recruitment of interested candidates from rural and remote areas should occur through multiple stages of physiotherapy trainee development, beginning with pre-admission to the MPT program as well as focus on positive training experiences for MPT students during rural and remote clinical placements.

# **Recruitment of physiotherapists**

Access to physiotherapy care that is timely, affordable, and appropriate were challenges identified from both community member and practitioner perspectives. Participants identified a host of recruitment challenges in rural and remote locations specific to new graduates and/or practising clinicians searching for employment. There is the perception of reduced mentorship options as well as lack of exposure to specialized clinical experiences and professional development opportunities in rural and remote practice settings. Establishing a province-wide rural and remote recruitment and retention strategy was identified by participants to combat the provincial physiotherapy shortage, particularly for chronically underserved communities. Being able to offer incentives (higher wage, flexible hours) not seen in urban settings were also suggestions to aid recruitment. Participants highlighted that engagement with individual communities is imperative to ensure local needs, strengths and opportunities are considered when developing recruitment and retention plans. Greater facilitation for mentorship, continuing education, and access to professional development opportunities were all additional strategies identified by participants.

# **Retention and physiotherapy practice**

Rural and remote physiotherapy practice can have complex clinical demands including managing a broad scope and dealing with complex patient needs (co-morbidities) and challenges in accessing care with little additional clinical support. Similar to the strategies identified for recruitment of new clinicians to rural and remote locations, there needs to be greater focus on also supporting those already practising in these geographic areas. Providing support through mentorship and access to interdisciplinary teams, in both public and private settings, to help support providers working in rural and remote areas was recommended by participants. Other recommendations included: offering local training to increase clinical support (physiotherapy assistants) and the use of innovative practice models including no wait booking strategies such as drop-in virtual care appointments (being able to virtually connect without needing an appointment time). Establishing these types of innovative practice models requires community engagement to ensure individual community capacities are utilized but also to understand specific needs, barriers, and opportunities.

## Community and team-based models of care

Provision of physiotherapy services in rural and remote areas can be siloed, creating challenges for providers to provide optimal care. Participants identified establishing primary care teams that include physiotherapy to allow for the consideration of broader social determinants of health and socio-economic status in care provision. Team-based care can support providers working in isolated environments and permits a more holistic approach to patient care. Participants also suggested team-based care that is holistic in nature could also allow diverse ways of knowing (e.g., incorporating Indigenous perspectives and values) into care models. Additional supports for team-based care identified by participants included: working within established models of care delivery and sharing resources such as coordinating travel and administrative support. Engagement within Indigenous community contexts included embracing a holistic approach to physiotherapy care, which includes understanding Indigenous determinants of health broadly, Indigenous worldviews, and working in partnership with Indigenous communities specifically through respectful engagement and local capacity building.

#### Virtual care and technology

Participants identified the absence in administrative leadership, support, funding, policies, and infrastructure as the main challenges to a provincial-wide uptake of virtual care technology for physiotherapy services in Saskatchewan. An increase in virtual care training opportunities as well as greater access to technology to better support trainees and providers in rural and remote areas were recommended. Participants highlighted that trainees and new graduates need greater exposure to virtual care in rural and remote practice to gain adequate skills to work with various technologies. Technology was also recommended as an avenue to provide professional development opportunities for physiotherapists working in rural, remote, and Indigenous communities. Sharing virtual care resources and learning from successful technological interventions that are already occurring across the province were identified as ways to improve its uptake and use. The way in which virtual care and technology is incorporated must be community-specific based on local resources, capacities of local staff as well as patient-centred. Therefore, community engagement in developing or expanding the use of virtual care or technology for the delivery of physiotherapy care is required.

# DISCUSSION

Many recommendations to improve access to physiotherapy services in rural and remote areas across Saskatchewan were identified by participants during our World Café. The province is not currently training enough physical therapists to meet the needs of the province and has recognized the need to increase training seats in the recently released Health and Human Resources Action Plan.<sup>19</sup> This plan included provincial funding for an additional 15 seats (40% increase) in the Master of Physical Therapy Program at the University of Saskatchewan for September 2023.<sup>20</sup> Recruitment efforts can start with preadmission targeted recruitment from rural and remote areas as well as with MPT students' rural and remote clinical placement experiences. Professional development opportunities and the ability to work with interdisciplinary care teams may help support retention of physiotherapists in rural and remote clinical settings. Virtual care should be considered to facilitate professional development, mentorship, and team-based care, but also to improve access to physiotherapy services for rural and remote community members.

Clinical placement experience, instructors, and whether an individual is from a rural and remote area are main factors of success in rural and remote recruitment strategies.<sup>21–24</sup> Successful recruitment and retention strategies will look different in each community and having models of care based on community needs will reduce practitioner burnout and improve retention.<sup>24</sup> Further, empowering communities to create welcoming and supportive environments for trainees and providers, including support for spousal employment, schooling for children, and hosting welcoming events has been shown to contribute to clinician recruitment and retention as well as relationship building between patients and providers.<sup>25</sup>

Reduced service availability and disruption to both coordination and continuity of care can negatively impact health. Interdisciplinary teams can increase access to community-based care, reduce access burdens on patients<sup>17</sup> as well as increase support for providers. The use of virtual care and technology is also an effective way to provide physiotherapy care, 11,26,27 specifically in underserved rural and remote communities without compromising patient and provider experience as well as clinical outcomes.<sup>27,28</sup> Additionally, technology can help support rural and remote providers who often have a high level of clinical responsibility and may experience professional isolation.<sup>24</sup> Restrictions during the COVID-19 pandemic limited access to "traditional" physiotherapy care and necessitated the growing role virtual care has in improving access to physiotherapy, particularly for rural and remote areas. Enhancing virtual care uptake will require policy level input on implementation and evaluation, equity of access to virtual care, and best practice and quality assurance recommendations. This will need to involve input from government, communities, patients, providers, and regulatory and professional association stakeholders.

The intent of the World Café format is to provide equitable opportunities for participants to contribute diverse

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perspectives and knowledge. Although most participants at this event were clinicians (physiotherapists and others) and many recommendations are framed at supporting physiotherapy trainees and practicing clinicians, the inclusion of rural and remote community member participants elevated the importance of community engagement in all recommendations. Successful implementation of these recommendations will require multi-level collaboration between government, decision-makers, clinicians, communities, and patients to create effective and sustainable changes. As demonstrated in the multiple facets of community engagement shown in the results and connections made in the discussion, community engagement must be considered essential to the success and sustainability of health care provision, and specifically physiotherapy, and encourages the use of local knowledge to address local concerns.<sup>25,28</sup>

Our study has several limitations. Event planners and most authors on the manuscript developed table topics to guide the World Café discussion and were also the facilitators at the tables in areas they had extensive knowledge on to ensure they could appropriately facilitate the conversation. These same individuals then provided summary notes and were involved in the final code set discussion. Each team member had clinical, professional, or research experience in these areas, and there may be possible bias in their contribution to the results. However, the diversity, knowledge, and expertise of the research team should be considered a strength in terms of being able to engage deeply with participants to better understand access to physiotherapy services across Saskatchewan.<sup>29</sup> Further, Author 1 who undertook primary analysis was not a clinician, faculty, or facilitator, does not have fundamental knowledge in the topic areas, nor did they participate in the World Café discussion. There was also only one facilitator per table, and they were required to facilitate and act as scribe, which may have resulted in some lost details or depth of data. A second supportive facilitator or notetaker could have negated this possible limitation. Although attempts were made to ensure diverse representation of participants in the initial round of the World Café, in the following rounds participants could selfdirect which table they wanted to go to which may have led to imbalance in the types of perspectives represented during subsequent discussion rounds. Due to budget and time constraints, the World Café was not audio-recorded. Discussion from summary notes and facilitator flipchart therefore may lack detail, nuance and direct quotes were not captured. As described in the methods section, our process of the World Café placed time limits to each round of discussion (15 minutes), which may have caused disruption in idea generation and restricted development of recommendations. Lastly, the World Café method aims to foster an inclusive and non-hierarchical environment<sup>14,15</sup>; however, some participants may not have been comfortable speaking out in a group setting. The research team provided opportunities for participants to provide feedback privately through an online survey following the event, but the responses did not contain data on the discussion topics so were not incorporated in our analysis.

# CONCLUSION

Through the World Café discussion, participants collectively and collaboratively developed recommendations to improve rural and remote physiotherapy services in Saskatchewan. Community engagement was identified by participants as an integral component to address barriers and implement recommendations. Communityengaged health care not only creates local leadership but improves health outcomes. This is particularly important for Indigenous communities to ensure unique strengths, worldviews, cultures, practices, and community-specific protocols are respectfully upheld and incorporated in the development of initiatives to address challenges to rural and remote physiotherapy practice.

## **KEY MESSAGES**

#### What is already known on this topic?

Access to physiotherapy care in rural and remote communities is limited. Multiple strategies to overcome access barriers to physiotherapy are recommended in the literature.

### What this study adds

A multi-stakeholder group recommended that, in addition to a multi-pronged provincial strategy, tailoring approaches to local community needs and preferences is necessary for optimizing more equitable and appropriate access to rural and remote physiotherapy care in Saskatchewan.

#### REFERENCES

- Bath B, Jakubowski M, Mazzei D, et al. Factors associated with reduced perceived access to physiotherapy services among people with low back disorders. Physiother Can. 2016;68(3):260–66. https:// doi.org/10.3138/ptc.2015-50. PMID: 27909375
- Bath B, Trask C, McCrosky J, et al. A biopsychosocial profile of adult Canadians with and without chronic back disorders: a population-based analysis of the 2009-2010 Canadian community health surveys. BioMed Res Int. 2014(2014):1–11. https://doi. org/10.1155/2014/919621. PMID: 24971357
- Bath B, Gabrush J, Fritzler R, et al. Mapping the Physiotherapy Profession in Saskatchewan: Examining Rural versus Urban Practice Patterns. Physiother Can. 2015;67(3):221–31. https://doi.org/10.3138/ ptc.2014-53. PMID: 26839448
- Vodden K, Cunsolo A. Chapter 3: Rural and remote communities. In: Warren FK, Lulham N, editors. Canada in a changing climate: national issues report. Government of Canada, Ottawa, Ontario; 2021. Available from: https://natural-resources.canada.ca/sites/ nrcan/files/GNBC/Chapter%203\_Rural%20and%20Remote%20 Communities\_Final\_EN.pdf
- 5. McFadden B, Jones McGrath K, Lowe T, et al. Examining the supply of and demand for physiotherapy in Saskatchewan: the relationship

between where physiotherapists work and population health need. Physiother Can. 2016;68(4):335–45. https://doi.org/10.3138/ptc.2015-70. PMID: 27904233

- Government of Canada SC. Focus on geography series, 2016 Census Province of Saskatchewan; 2017 [Accessed August 29, 2023]. Available from: https://www12.statcan.gc.ca/census-recensement/2016/as-sa/ fogs-spg/Facts-PR-Eng.cfm?TOPIC=9&LANG=Eng&GK=PR&GC=47
- National Collaborating Centre for Indigenous Health. Access to health services as a social determinant of First Nations, Inuit and Métis health [Internet]; 2019. Available from: https://www.nccih.ca/ docs/determinants/FS-AccessHealthServicesSDOH-2019-EN.pdf
- Crockett K, Lovo S, Irvine A, et al. Experiences of health care access challenges for back pain care across the rural-urban continuum in Canada: protocol for cross-sectional research. JMIR Res Protoc. 2022;11(12):e42484. https://doi.org/10.2196/42484. PMID: 36534454
- 9. Gizaw Z, Astale T, Kassie GM. What improves access to primary healthcare services in rural communities? A systematic review. BMC Prim Care. 2022;23(1):313. https://doi.org/10.1186/s12875-022-01919-0. PMID: 36474184
- DiCenso A, Bourgeault I, Abelson J, et al. Utilization of nurse practitioners to increase patient access to primary healthcare in Canada – thinking outside the box. Nurs Leadersh. 2010;23(sp):239– 59. https://doi.org/10.12927/cjnl.2010.22281. PMID: 21478696
- Horsley S, Schock G, Lovo S, et al. Use of real-time videoconferencing to deliver physical therapy services: a scoping review of published and emerging evidence. J Telemed Telecare. 2020;26(10):581–9. https://doi.org/10.1177/1357633X19854647. PMID: 31213166
- Kairy D, Lehoux P, Vincent C, et al. A systematic review of clinical outcomes, clinical process, healthcare utilization and costs associated with telerehabilitation. Disabil Rehabil. 2009;31(6):427–47. https://doi.org/10.1080/09638280802062553. PMID: 18720118
- Sandelowski M. Whatever happened to qualitative description? Res Nurs Health. 2000;23(4):334–40. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G. PMID: 10940958
- Anderson L. Use the World Café concept to create an interactive learning environment. Educ Prim Care. 2011;22(5):337–8. https://doi. org/10.1080/14739879.2011.11494028. PMID: 22005493
- Delaney C, Daley K, Lajoie D. Facilitating empowerment and stimulating scholarly dialogue using the World Café Model - ProQuest. J Nurs Educ. 2006;45(1):46. https://doi. org/10.3928/01484834-20060101-10. PMID: 16496740
- Hsieh HF, Shannon SE. Three Approaches to Qualitative Content Analysis. Qual Health Res. 2005;15(9):1277–88. https://doi. org/10.1177/1049732305276687. PMID: 16204405
- Levesque JF, Harris MF, Russell G. Patient-centred access to health care: conceptualising access at the interface of health systems and populations. Int J Equity Health. 2013;12(1):18. https://doi. org/10.1186/1475-9276-12-18. PMID: 2349698
- Bath B, Lovo S, Irvine A, et al. Re-Imagining rural and remote physiotherapy in Saskatchewan. University of Saskatchewan; 2022.

Available from: https://cchsa-ccssma.usask.ca/mhac/documents/ event-report-re-imagining-rural.pdf

- Government of Saskatchewan. Health human resources action plan;
  2022. Available from: file:///Users/alisonirvine/Downloads/HHR%25
  2BAction%252BPlan%252B2022.pdf.
- 20. University of Saskatchewan; College of Medicine. Additional training seats added to USask health programs; 2023. Available from: https:// medicine.usask.ca/news/2023/additional-training-seats-added-tousask-health-programs.php
- Shah T, Milosavljevic S, Proctor P, et al. Variation in the geographic distribution of physiotherapy student clinical placements in rural Saskatchewan. Physiother Can. 2018;70(3):274–9. https://doi. org/10.3138/ptc.2017-10.e. PMID: 30275652
- 22. Apke TL, Whalen M, Buford J. Effects of student physical therapists on clinical instructor productivity across settings in an Academic Medical Center. Phys Ther. 2020;100(2):209–16. https://doi. org/10.1093/ptj/pzz148. PMID: 31595959
- Winn C, Chisholm B, Hummelbrunner J. Factors affecting recruitment and retention of rehabilitation professionals in Northern Ontario, Canada: a cross-sectional study. Rural Remote Health. 2014;14(2):2619. https://doi.org/10.22605/RRH2619. PMID: 24717094
- 24. Abelsen B, Strasser R, Heaney D, et al. Plan, recruit, retain: a framework for local healthcare organizations to achieve a stable remote rural workforce. Hum Resour Health. 2020;18(1):63. https://doi.org/10.1186/s12960-020-00502-x. PMID: 32883287
- 25. Kornelsen J, Carthew C. (2019). Rural Evidence Review December 2018: Community-level strategies for recruiting and retaining health care providers to rural and remote areas: a scoping review; 2018. Centre for Rural Health Research. https://med-fom-crhr.sites.olt. ubc.ca/files/2019/09/Rural-Evidence-Review-Community-Level-Recruitment-and-Retention-Scoping-Review-FINAL-reduced-filesize.pdf
- 26. Cottrell M, Galea O, O'Leary S, et al. Real-time telerehabilitation for the treatment of musculoskeletal conditions is effective and comparable to standard practice: a systematic review and meta-analysis. Clin Rehabil. 2017;31(5):625–38. https://doi. org/10.1177/0269215516645148. PMID: 27141087
- Lovo S, Bath B, Bustamante L, et al. Case report: using a remote presence robot to improve access to physical therapy for people with chronic back disorders in an underserved community. Physiother Can. 2017;69(1):14–9. https://doi.org/10.3138/ptc.2015-77. PMID: 28154440
- Lovo S, Harrison L, O'Connell M, et al. Experience of patients and practitioners with a team and technology approach to chronic back disorder management. J Multidiscip Healthc. 2019;12(2019):855–69. https://doi.org/10.2147/JMDH.S208888. PMID: 31695402
- Galdas P. Revisiting bias in qualitative research: reflections on its relationship with funding and impact. Int J Qual Methods. 2017;16(1):1609406917748992. https://doi. org/10.1177/1609406917748992