

Analytical study on Feasibility, Fidelity, Implementation cost and demand associated with Digital health interventions for optimized chronic pain outcomes among patients during COVID-19 in Australia regional health

Author: Ssenyondwa Denis.

Email me: ssenyondwad@yahoo.com

Background:

In Australia, up to 80% chronic pain patients miss effective treatments especially in regional areas. Digital health interventions (DHIs) - mHealth, Telehealth and syringe drivers can provide both intervention and strategic access solution to these patients in the multi-model-analgesic and biopsychosocial clinical modalities. New South Wales' Australia digital inclusion index (ADII) score is 61.8 compared to the national average 61.9 - indicating a high digital penetration. Successful pain control depends on both these DHIs successful implementation and effectiveness - such evidence is lacking. Moreover, there is no evidence on the association between their implementation and chronic pain control outcome at a population level.

Aims:

This research will identify requisite necessities to the DHIs implementation process to attain optimised chronic pain control during the pandemic and beyond.

Methods:

This is a two episodic three-monthly survey of randomly sampled New South Wales regional hospitals and purposively sampled clinicians, patients utilising atleast one DHI and their carers. A Modified Consolidated framework for Implementation Research will guide the identification of influencers to Feasibility, Fidelity, Implementation cost, Demand and pain outcomes. A chi-square test for independence and P-values at 95% Confidence interval will be calculated.

Results:

None, It's a proposed project for a master of philosophy

Implications for implementation research or practice:

Identifying facilitators and barriers to mHealth, Telehealth and syringe drivers in regional health and associate their overall implementation success with chronic pain control provides the necessary evidence on the performance of DHI based remodeled health care to the most vulnerable chronic pain suffers during the pandemic and beyond.

Additional message

This author is looking for a collaborative supervisor.

Key messages:

Apart from the isolated clinical and community trial efficacy evidence related to these three DHIs, population evidence is necessary on how successful implementation of these DHIs may effectively control chronic pain in a multi-model-analgesic and biopsychosocial clinical modalities in regional populations with high ADII scores.

References:

Bennett, 2019. The impact of pain on rural and regional Australia: problems and solutions. 15th National Rural health Conference. [Online]. Available at; http://www.ruralhealth.org.au/15nrhc/sites/default/files/B2-1_Bennett.pdf.

Byambasuren et al., 2019. Current Knowledge and Adoption of Mobile Health Apps Among Australian General Practitioners: Survey Study. JMIR Mhealth Uhealth, [e-journal] 7(6):e13199. Available at: doi: 10.2196/13199.

Emerick et al., 2020. Telemedicine for Chronic Pain in the COVID-19 Era and Beyond, Pain Medicine, [e-journals]. Volume 21, Issue 9, Pages 1743–1748. Available at: <https://doi.org/10.1093/pm/pnaa220>

Feizerfan and Sheh, 2015. Transition from acute to chronic pain. Continuing Education in Anaesthesia Critical Care & Pain, [online]. Volume 15, Issue 2, April, Pages 98–102. Available at: <https://doi.org/10.1093/bjaceaccp/mku044>

Gatchel and Howard, 2021. The Biopsychosocial Approach. The practical pain management – PPM, [e-journal]. 9 Articles in Volume 8, Issue #4. Available at: <https://www.practicalpainmanagement.com/issues>.

National Rural Health Alliance, 2013. chronic pain –a major issue in rural Australia. National Rural Health Alliance Inc, [e-pdf]. Available at: https://www.apsoc.org.au/PDF/Publications/nrha-factsheet-pain_OCT13.pdf

Painaustralia, 2018. Greater use of digital health technologies needed. [online]. Available at: <https://www.pinaustralia.org.au/media-document/enews-1/enews-2018/issue-81/greater-use-of-digital-health-technologies-needed>

Thomas et al., 2019. Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2019, RMIT University and Swinburne University of Technology, Melbourne, for Telstra. Available at: DOI: <https://doi.org/10.25916/5d6478f373869>

