PROJECT
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Evaluation of the SA Chronic Pain ECHO Network

Menzies Centre for Health Policy and Economics
Faculty of Medicine and Health
The University of Sydney

Final evaluation report
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THE UNIVERSITY OF SYDNEY

Menzies Centre for Health Policy and Economics

Evaluation of the SA Chronic Pain ECHO Network

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Funding

The evaluation of the SA Chronic Pain ECHO Network was funded by the Department of Health and Aged Care, Australian Government grant (2020-24; GO2810) Pain Management - Health Professional Education and Training (in response to the National Strategic Action Plan) as part of a consortium project led by the University of Sydney. The evaluation was conducted by the Menzies Centre for Health Policy and Economics, University of Sydney.

ReturnToWorkSA and Country SA Primary Health Network co-commissioned the implementation of the SA Chronic Pain ECHO Network.

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Project ECHO

Project Extension for Community Healthcare Outcomes (Project ECHO) is an evidence-based e-mentoring interdisciplinary capacity building program that has been implemented nationally and internationally to upskill health care professionals and reduce healthcare disparities. Project ECHO uses a "Hub" and "Spoke" model to promote knowledge exchange (using didactics and case-based telementoring) between an expert multidisciplinary team of health care professionals (often associated with a tertiary setting) and health care professionals (often in the primary care setting).

SA Chronic Pain ECHO Network

The SA Chronic Pain ECHO Network was implemented by the SA Postgraduate Medical Education Association (SAPMEA) to upskill primary care providers and other health care professionals in best practice pain care aligned to the biopsychological model. SAPMEA is a not-for-profit medical education organisation with the core function to develop, implement and support medical and health education programs. SAPMEA has established an ECHO Hub to deliver ECHO programs to health care professionals in South Australia (https://sapmea.asn.au/echo).

ReturnToWorkSA and Country SA Primary Health Network co-commissioned the implementation of the SA Chronic Pain ECHO Network. The evaluation of the SA Chronic Pain ECHO Network was funded by the Department of Health and Aged Care, Australian Government grant (2020-24; GO2810) Pain Management - Health Professional Education and Training as part of a consortium project led by the University of Sydney. The evaluation was conducted by the Menzies Centre for Health Policy and Economics, University of Sydney.

A partnership approach was used to co-design, implement, and evaluate the SA Chronic Pain ECHO Network. The SA Chronic Pain ECHO Network Advisory Group included representatives from SAPMEA, the University of Sydney, ReturnToWorkSA, Country SA Primary Health Network, the SA Statewide Chronic Pain Clinical Network (Commission on Excellence and Innovation in Health), and a Project ECHO content expert who was also a WorkSafe Victoria consultant.

ECHO Hub panel members were selected by the SA Chronic Pain ECHO Network Advisory Group and represented a range of professional disciplines including two specialist pain medicine physicians (shared position), a GP with expertise in pain management, an Australian Physiotherapy Association titled pain physiotherapist, and two clinical psychologists with expertise in pain management (shared position). The facilitator was a GP recruited by SAPMEA. The SA Chronic Pain ECHO Network was implemented between July and November 2022 (https://sapmea.asn.au/echo/pain).

Implementation and impact of the SA Chronic Pain ECHO Network

The SA Chronic Pain ECHO Network was shown to be feasible, acceptable, and effective and met the expectations of the co-commissioners in terms of the reach of the program.

Overall, 44 health care professionals from a range of professional disciplines (half of whom were GPs) participated in the SA Chronic Pain ECHO Network. The ECHO program included health care professionals with a range of professional experience and one third of health care professionals worked in regional SA.

The ECHO program met the learning needs of health care professionals and there was a high level of satisfaction with the ECHO model. The ECHO program was perceived as relevant to practice and provided a positive mentorship environment and professional support.

The ECHO program was shown to improve perceived knowledge and confidence to manage patients with chronic pain. The most common key learnings related to the importance of incorporating psychological and social approaches to pain care including addressing mental health issues, teaching patients psychological self-management strategies, referring to clinical psychologists if required, and promoting social connection and community groups.

The ECHO program also improved attitudes towards patients with chronic pain by improving health care professionals' understanding of the importance of learning about the whole person and validating the patient experience. It also improved attitudes towards other health care professionals with participants reporting a better understanding of how different health care professional disciplines can contribute and work together, with GPs indicating an intention to increase referrals to allied health practitioners.

Health care professional participants identified multi-level barriers to delivering best practice pain care (aligned to a biopsychosocial approach) that could be addressed with further investment.

Co-commissioners, SAPMEA, health care professional participants, ECHO Hub panel members and the GP facilitator thought the ECHO model was a 'value-add' compared to other education programs and that the SA Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if resources were available.

Objectives of the SA Chronic Pain ECHO Network

The objectives of the SA Chronic Pain ECHO Network were to:

1. Meet the learning needs of health care professionals related to best practice pain care with a focus on regional health care professionals and health care professionals managing patients with compensable workplace injuries;
2. Improve the knowledge, confidence, and practice of health care professionals related to best practice pain care;
3. Improve health care professional experience of providing best practice pain care;
4. Create a 'virtual Community of Practice' among health care professionals to improve knowledge-sharing and networks among participants and external to the program, and reduce professional isolation;
5. Create a positive mentorship environment for health care professionals related to best practice pain care.

Evaluation framework

A participatory evaluation approach was undertaken by the University of Sydney to ensure that the evaluation responded to the needs of practitioners and decision-makers, was feasible (within limited time, budget and resources) and considered context. The evaluation framework was developed by the University of Sydney in collaboration with the SA Chronic Pain ECHO Network Advisory Group.

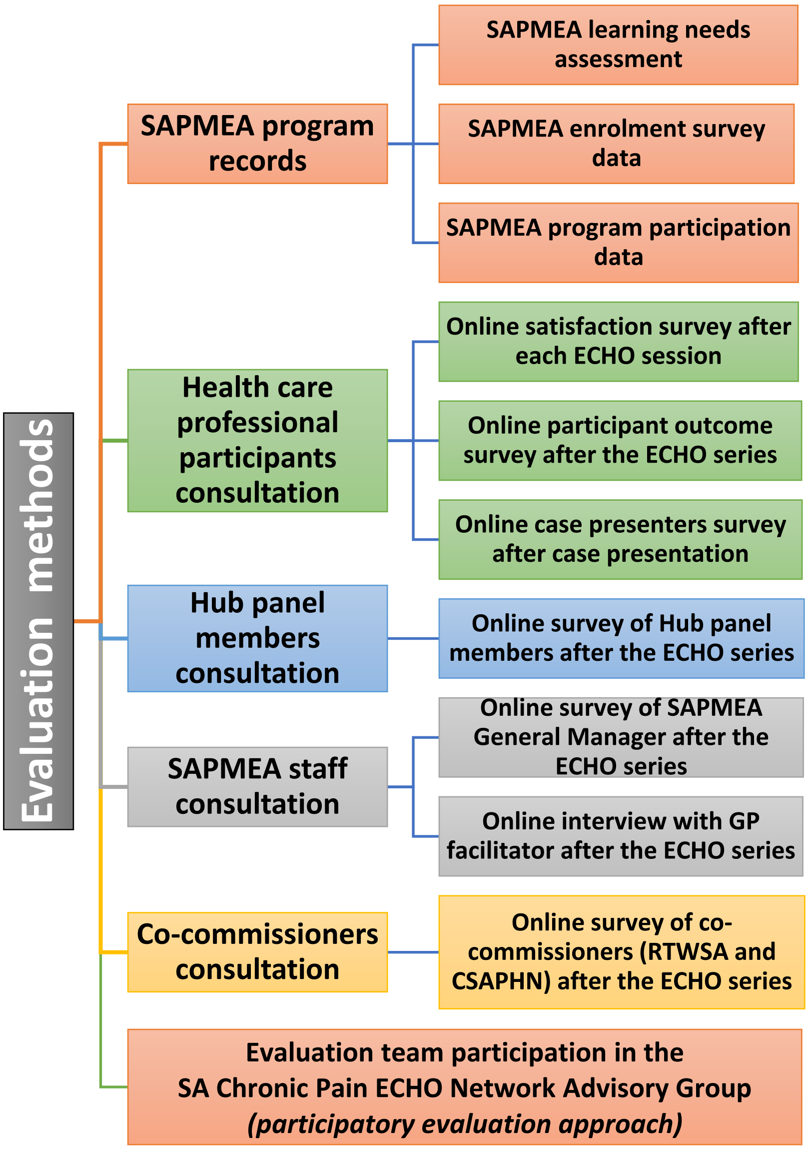
The evaluation sought to answer the following questions:

1. How was the SA Chronic Pain ECHO Network implemented and what were the implementation outcomes of the SA Chronic Pain ECHO Network?
2. What was the impact of the SA Chronic Pain ECHO Network on health care professional participants, ECHO Hub panel members, implementers (SAPMEA) and co-commissioners?

Ethics approval for the evaluation was granted by The University of Sydney, Human Research Ethics Committee (HREC) [2022/424].

See Table 1 in the main report for the evaluation questions and sub-questions and corresponding data sources, Page 29.

Methods of the evaluation



Evaluation Question 1: How was the SA Chronic Pain ECHO Network implemented and what were the implementation outcomes of the SA Chronic Pain ECHO Network?

Program activities of the SA Chronic Pain ECHO Network

10 ECHO sessions of 75 mins (fortnightly over 20 weeks)

- **10 didactic presentations by Hub panel members**
- **9 case presentations by health care professional participants**
- **1 Q and A session**

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Further resources (provided on SAPMEA ECHO webpage after each ECHO session)

- **recording and slides from the didactic presentations**
- **links to relevant health care professional and consumer resources**

Curriculum of the SA Chronic Pain ECHO Network

Topics were selected based on a learning needs assessment of participants and advice from the SA Chronic Pain ECHO Network Advisory Group about essential knowledge in chronic pain management. The learning needs of participants was assessed by a) an online survey of potential participants during the EOI phase about their learning needs related to chronic pain management; and b) an online survey of participants as part of the enrolment form of their specific learning needs related to each of the curriculum topics.

ECHO Session	Didactic curriculum topic
1	Chronic pain management fundamentals – the biopsychosocial model of pain
2	Explaining pain to patients – language, messaging and helping reduce pain catastrophising
3	Psychological strategies and self-management approaches to pain management
4	Physical therapies and activity pacing
5	Types of chronic pain with a focus on neuropathic pain & Complex Regional Pain Syndrome (CRPS)
6	Low back pain
7	Safe and effective use of medicines for chronic pain
8	Strategies to support opioid tapering in people with chronic pain
9	Secondary prevention of chronic pain in the pre/post-surgery and post-injury phase
10	Sleep management

Reach of the SA Chronic Pain ECHO Network[1]

61 enrolled	61 health care professionals enrolled *
44 participated	44 healthcare professionals participated in at least one ECHO session (72% of enrollees)
5.3 sessions average	Average of 5.3 sessions attended by participants; and 26 participants attended more than 50% of the ECHO series
15-33 participants attended each ECHO session	33 participants attended ECHO session 1; 22-29 participants attended ECHO session 2-8; and 15-17 participants attended ECHO session 9-10

Profile of participants

GPs and other professional disciplines	Half of participants were GPs (48%) and half represented a range of other professional disciplines (nurses, physiotherapists, paramedics, pharmacists, social workers, educational role, podiatrists, psychiatry RMO, psychologist - general, and a chronic pain community-based program co-ordinator)
Experience	Over half of participants (59%) had greater than 10 years experience in practice; 15% had 6-10 years experience; 20% had 2-5 years experience; and 7% had < 2 years experience
Patients with chronic pain	Approximately one third of participants (34%) managed over 30 patients with chronic pain in the past 12 months; approximately one third of participants (32%) managed 11-30 patients; 18% managed 6-10 patients; 9% managed 1-5 patients; and 7% did not manage these patients
Patients with workplace injuries	Approximately one third of participants (34%) managed 1-5 patients with workplace injuries managed under the workers compensation scheme in the past 12 months; 23% managed 6-30 patients; 9% managed >30 patients; and approximately one third of participants (34%) did not manage these patients
Regional	Approximately one third of participants (30%) were from regional SA and two thirds from metropolitan SA (70%)
Working in a team	Approximately half of participants (48%) worked in a team of practitioners from the same clinical discipline; 41% worked in a team of practitioners from different clinical disciplines; and 11% were from solo practices

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[1] SAPMEA enrolment survey data and SAPMEA program participation data

*Number of enrolled participants was capped to foster interactivity and sense of belonging to a community of practice

What were the enablers and barriers to implementation of the SA Chronic Pain ECHO Network?[2]

Enablers to implementation

Tension for change	•Long waiting lists for tertiary pain clinics and need for greater involvement of primary care
Unmet needs of healthcare professionals	•Motivation for primary care providers to participate due to lack of knowledge and confidence in best practice pain care aligned to biopsychosocial model •ECHO program responded to learning needs
Project ECHO model	•Evidence-based •Implemented nationally and internationally •Well-designed and packaged •Adaptability to local context •ECHO training and support provided
Format of the ECHO program	•Online •Timing of sessions after business hours •Adapting ECHO session 10 to include a Q and A
SAPMEA	•Leadership, commitment, and enthusiasm of SAPMEA General Manager •SAPMEA Advocacy for funding •Reputation, experience, and capability of SAPMEA - health professional education and ECHO •SAPMEA's established systems, processes, and templates; and staffing •SAPMEA's dedicated Webpage •SAPMEA's established networks of GPs and other health care professionals (potential participants), and key stakeholders and content experts (potential Hub panel members)
Co-commissioners RTWSA and CSAPHN	•Executive level buy-in •Established networks of healthcare professionals and key stakeholders and content experts •Funding
Consortium Pain Management Education Project	•DoHAC funds as part of the Consortium project to pilot an ECHO program •USyd evaluation team's experience conducting the evaluation of the Western Victoria Primary Health Network Project ECHO (Persistent Pain) program •Opinion leader - Dr Anne Daly
Partnership approach (SA Chronic Pain ECHO Network Advisory Group)	•Partnership approach to planning, implementation and evaluation and selection of potential hub panel members •Partnership approach to identifying curriculum topics and content review of didactics to ensure evidence-based best practice •Opinion leader – A/Prof Anne Burke
ECHO Hub panel members	•Commitment and expertise of Hub panel members •Multidisciplinary representation •Number of members (N=6) •Collaboration and teamwork - sharing development of didactics and peer-review of didactics •Positive mentorship environment
Facilitator	•Clinical knowledge and facilitation skills of GP facilitator
Incentives	•CPD points - RACGP and ACRRM •CPD certificate - other professional disciplines
Monitoring and evaluation	•Satisfaction surveys for quality improvement

Barriers to implementation

Lack of formal training in the ECHO model	•Hub panel members did not receive training in the ECHO model and expressed interest in training (developing didactics, facilitation, mentorship/feedback to participants and working as a team) •GP facilitator observed another SAPMEA ECHO program but did not receive training in the ECHO model
Lack of training and support to deliver good didactics	•Time required to develop evidence-based, engaging, and succinct didactics •Challenge presenting didactics within the short timeframe •Some repetition of content across the ECHO sessions •IT issues for presenters
Inadequate information provided to Hub panel members at recruitment about time required for participation	•Unrealistic expectations of the time required of Hub panel members for participation in the ECHO program •Time constraints of Hub panel members
Complexity of cases	•Complexity of some cases •Challenge of presenting cases within the timeframe
Low engagement of some health professional disciplines	•Low engagement of allied health practitioners as participants and case presenters •Nurse practitioners did not present any of the cases •Greater discussion of pain management relevant to nurse practitioners requested
Completion of case study template	•Challenge for healthcare professionals to complete the case study templates in a timely manner
Length of the ECHO series	•Some participants thought the ECHO series was too long •Decrease in participation over the ECHO series •Average of 5.3 sessions attended by participants
Anonymity of online participants with cameras off	•Participants largely had their cameras off which was perceived by some as reducing interactivity and sense of a Community of Practice
Lack of Hub panel member expertise in the needs of refugee and migrant patients	•Cases that involved patients from refugee and migrant groups were perceived as being complex and not within the skillset of the Hub panel members
Monitoring and evaluation burden	•Low-medium response rate for evaluation surveys

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[2] Informed by the online surveys with SAMPEA General Manager, Hub panel members and health care professional participants, and online interview with GP facilitator

Evaluation Question 2: What was the impact of the SA Chronic Pain ECHO Network on health care professional participants, ECHO Hub panel members, implementers (SAPMEA) and co-commissioners?

Satisfaction and relevance[3]

High level of **satisfaction with the ECHO format** (didactic and case study/Q & A)

Vast majority thought the ECHO format was **a 'value-add'** and will assist them to integrate learnings into their practice

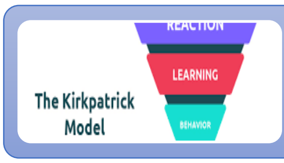
Participants liked the **further resources** provided after each ECHO - recording and slides from the didactic presentations, links to relevant healthcare professional and consumer resources

High level of **satisfaction with the online learning** format - accessible, most participants did not experience technical difficulties

Some participants thought the ECHO series was too long

Some participants commented on the complexities and length of some of the cases which negatively impacted on learning

Almost all participants thought the ECHO sessions were **relevant to practice**



Vast majority thought the ECHO sessions had **met their learning needs**

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[3] Results from satisfaction surveys, case presenter surveys and outcome surveys: The average response rate for the satisfaction surveys over the series was 46% (range 34%-60%) completed by health care professionals from a range of disciplines. Eleven health care professionals completed the outcome survey (response rate 25%). Response rate for the case presenters survey: 7/9 = 78%.

Perceptions of the mentorship environment and professional support[4]

Vast majority thought the ECHO hub panel created **a positive, non-judgemental, and encouraging environment**

Majority of case presenters thought the feedback **will improve the quality of care to the patient**

Vast majority liked the Community of Practice and **learning with other healthcare professionals with an interest in chronic pain**

Vast majority thought the ECHO provided **professional support**

Majority thought the ECHO had improved their **professional networks** related to pain management

Participants largely had their cameras off - perceived by some participants as reducing interactivity and community

QUOTES FROM HEALTH CARE PROFESSIONAL (HCP) PARTICIPANTS

"Thank you... It was very informative and helpful. Definitely chronic pain sessions were one of the best among SAPMEA learning opportunities." [hcp, outcome survey]

"ECHO sessions absolutely fantastic. Such a great way to learn. Thank you." [hcp, satisfaction survey]

"Excellent speakers and MC, great content and ability to interact. Thank you." [hcp, satisfaction survey]

"It was incredibly validating. Huge amount of information. Very grateful to the support I have been given." [case presenter survey]

"I don't know of another forum in which I could have received this support. I have a management pathway with various options depending on the patient's response and it is specific to my patient." [case presenter survey]

"It was great, I was so glad that I got the opportunity to present to a multidisciplinary team of specialists." [case presenter survey]

"I think the sessions have been run extremely well. The format is great and the "sticking" to time is just fantastic. The ability to interact with specialists is fantastic." [hcp, satisfaction survey]

"Increased awareness of what is out there. Also, that I was not alone in managing this complex issue for patients." [hcp, outcome survey]

"Ongoing reference source of practitioners and reference materials for use and referral when needed." [hcp, outcome survey]

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[4] Results from satisfaction surveys, case presenter surveys and outcome surveys.

Key learnings from the SA Chronic Pain ECHO Network[5]

The most common key learnings reported in the SA Chronic Pain ECHO Network related to the importance of incorporating psychological and social approaches into pain care.

Incorporating psychological approaches

- Addressing mental health issues
- Teaching patients psychological self-management strategies
- Referring to clinical psychologists if required

Incorporating social approaches

- Promoting social connection and community groups

Impact on knowledge, confidence and attitudes[5]

All participants (of the outcome survey) reported improved **knowledge** and **confidence** to manage patients with chronic pain and to help people make sense of their pain from a **biopsychosocial perspective**

Participants reported a greater understanding of the importance of the **whole person** especially mental health

All participants (of the outcome survey) reported improved **confidence** about using a **patient centred approach** e.g., empathetic listening and validation

Participants reported a greater understanding of the **system barriers** for patients to accessing care

Participants valued the **multidisciplinary approach** of the Hub panel and participants thought they had a better understanding of how different healthcare professional disciplines can contribute and work together

Participants reported improved knowledge of relevant healthcare professional and consumer **resources**

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[5] Results from satisfaction surveys, case presenter surveys and outcome surveys.

QUOTES FROM HEALTH CARE PROFESSIONAL (HCP) PARTICIPANTS

“The chronic pain ECHO has updated my knowledge and it was one of the best of the ECHO series.” [hcp, outcome survey]

“Better understanding of the way in which different practitioners can contribute and work together.” [hcp, outcome survey]

“[Improved] knowledge of available resources for personal and client use.” [hcp, outcome survey]

“[Key learnings for me are] overwhelming importance of mental health in chronic pain management.” [hcp, satisfaction survey]

“I feel confident to 'prescribe' connecting with others as one of the non-pharmacological treatments for chronic pain.” [hcp, outcome survey]

“[Key learnings for me are] asking the patient to contribute more i.e., listen more than talk. Make sure the patient understands clearly and reduce fear.” [hcp, satisfaction survey]

“[Key learnings for me are] that the biomedical, psychological and social situations of a patient are all recognised elements of chronic pain management rather than just the biomedical side.” [hcp, satisfaction survey]

Intention to change practice[6]

The vast majority of survey respondents (of the satisfaction survey) thought they would use their learnings in their clinical practice with patients with chronic pain: 61% of survey participants (average percentage across the series) thought it was extremely likely they would use their learnings from the ECHO session(s) in their clinical practice with patients with chronic pain; and 36% thought it was likely (average percentage across the series). Participants described the ways they intended to change their practice:

- **Learning about the whole person**
- **Validating the patient experience**
- **Gathering history around all three elements (biomedical, social and psychological)**
- **Using appropriate language and messaging to reduce pain catastrophising**
- **Addressing mental health issues**
- **Teaching patients self-management strategies**
- **Referral to allied health - clinical psychologists and physiotherapists**
- **Promoting social connection and community groups**
- **Using the consumer and health professional resources recommended**
- **Changing the type of medications prescribed for pain management**
- **Intention to reduce their opioid prescribing**

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[6] Results from satisfaction surveys and case presenter surveys.

Changes in practice[7]

Participants reported changes in practice such as:

- ✓ Increased GP referrals to allied health practitioners for pain management [5 of 6 GPs in the outcome survey] and decreased opioid prescribing (either amount or frequency) [5 of 6 GPs in the outcome survey]
- ✓ Encouraging social connection and psychological support
- ✓ Referring to peer support and university allied health services (for patients with cost barriers)
- ✓ Use of the consumer and health care professional resources recommended.

QUOTES FROM HEALTH CARE PROFESSIONAL (HCP) PARTICIPANTS

"Firstly, I am recognising that some patients I have seen for years are chronic pain patients. Identifying this is very helpful. I'm already practicing including some of the learnings about chronic pain management into these patients care plans." [hcp, satisfaction survey]

"The information I received from the panel allowed me to encourage my patient to re-engage in psychological supports and to consider volunteering as a gardener in the community garden." [case presenter, outcome survey]

"I now encourage patients to treat their PTSD / depression / anxiety because they experience more pain if their mental health is poor." [hcp, outcome survey]

"I [now] encourage my patients to connect with others because when we connect, we feel happier, and this results in decreasing pain levels." [hcp, outcome survey]

"It definitely did [change the management of my patient]. I was not aware of the resources available for the patient e.g., COTA, physio services from universities because cost is the main issue for most older adults who suffer from chronic pain." [case presenter, outcome survey]

Perceived multi-level barriers to changing practice

More than one third of health care professional participants (42% across the series)[8] thought that there were barriers to applying the application of learnings from the SA Chronic Pain ECHO Network, that is, delivering best practice pain care (aligned to a biopsychosocial approach) including[9]:

- ➢ Perceived patient related factors:
    - Cost and travel barriers for patients
    - Perceived patient attitudes and lack of motivation
    - Patients with low literacy, low health literacy and CALD communities requiring additional resources and support
- ➢ Perceived health care professional related factors:
    - Lack of time during consultations
    - Lack of appropriate health care professional education
    - Difficulty forming a multidisciplinary team within general practice

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[7] Results from outcome survey
[8] Results from satisfaction survey
[9] Results from satisfaction survey and outcome survey

    - Lack of access to resources especially for people with low literacy and low health literacy
- Perceived funding related barriers:
    - Perceived lack of remuneration to deliver best practice pain care (aligned to the biopsychosocial approach)
    - Perceived lack of funding for group-based pain programs, CALD pain services, and workforce training
    - Perceived lack of funding for workforce training to deliver best practice pain care (aligned to the biopsychosocial approach)
- Perceived workforce shortages
- Perceived society-related barriers:
    - Media communication not aligned to best practice pain care (aligned to the biopsychosocial approach)

Perceived importance of sustaining the SA Chronic Pain ECHO Network[10]

All health care professional participants, ECHO Hub panel members and the facilitator thought the SA Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if resources were available. Ideas suggested for the format of an ongoing Community of Practice included the current format as a didactic followed by a case presentation, perhaps less frequently than every 2 weeks; a Q and A every month with a Hub panel (a range of disciplines including a specialist pain medicine physician); an online support group with a facilitator; and an online Facebook page.

Recommendation for improvements

Recommendations have been developed by the evaluation team based on the barriers to implementation of the SA Chronic Pain ECHO Network identified by the SAMPEA General Manager, Hub panel members, GP facilitator and health care professional participants.

Formal training in the ECHO model

- Provide the resources for the facilitator to participate in the ECHO Immersion Training provided by the Children's Health Queensland Hospital and Health Service ECHO Superhub;
- Hub panel members to consider participating in the ECHO Immersion Training, or at a minimum, observing 1-2 session of another ECHO program and/or discussing with Hub panel members from another SA ECHO program about their experiences of being a Hub panel member.

Curriculum support and training to deliver brief online presentations

- SAPMEA to consider offering brief training to Hub panel members about how to develop a good didactic, how to prepare the didactic for the timeslot allocated, and how to deliver online presentations (including IT issues);
- Provide prepared didactics that could be adapted by Hub panel members e.g., provided by the Pain Management Research Institute (University of Sydney) and the US ECHO Institute

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[10] Results from outcome survey

library. The didactics from the SA Chronic Pain ECHO Network could be used for future Chronic Pain ECHO programs.

Manage expectation of Hub panel members of time commitment

- Provide adequate information to Hub panel members during recruitment to ensure realistic expectations of the time required to participate in the ECHO program (i.e., initial planning meeting, developing didactics, peer-reviewing didactics, ensuring co-presenters presentations 'blend' well, reviewing case studies, participating on the Hub panel in the ECHO sessions, participating in the evaluation).

Recruitment

- Consider a higher recruitment cap of 80 (rather than 60) participants to enable greater attendance per ECHO session (N=30-40 participants per ECHO session);
- Greater engagement of allied health practitioners – through the networks of SAPMEA, co-commissioners, Hub panel members and professional associations if possible.

Case presentation

- Filter out highly complex case studies – SAPMEA to consider briefly discussing with case presenters before they complete the template the proposed case and filter out cases that are too complex (these cases to be referred to tertiary services);
- To encourage completion of the case presenter template in a timely manner, SAMPEA to consider incentives for case presentations such as reimbursement for multidisciplinary case conference under Medicare or CPD points for case presentation;
- To encourage case presentation within the time allocated, consider the facilitator presenting a brief outline of the case and asking the case presenter to add any other important points, noting that the Hub panel members have read the case prior to the ECHO session;
- Greater engagement of allied health practitioners and nurse practitioners to present a case – consider quotas for different professional disciplines for case presentations;
- Greater engagement of regional health care professionals to present a case - consider quotas for regional and metropolitan case presenters;
- Alignment of case with didactic presentation for all ECHO sessions if possible.

Length of the ECHO series

- Consider decreasing the length of the series e.g., 6 ECHO sessions in the series instead of 10, considering that the average attendance was 5.3 sessions.

Interactivity and Community of Practice

- Create a more personal environment by encouraging people to turn on their cameras (even if they are on the bus home from work or eating their dinner) and informing potential participants at the EOI phase of the difference between the ECHO model and a series of webinars.

Needs of CALD groups

- Consider including a Hub panel member with expertise in migrant and refugee health or consider a specialised training program focusing on the needs of these groups.

Format of the ECHO session

- Consider having more Q and A sessions (based on cases) throughout the ECHO series (e.g., in the middle and end of the ECHO series or every second ECHO session) as a way to increase interactivity and respond to the learning needs of participants;
- Consider having a patient(s) present their story, their experience of their care and strategies that helped them better manage their chronic pain.

Monitoring and evaluation

- To increase response rate to evaluation surveys - decrease length of surveys;
- Consider establishing CPD points for completion of evaluation surveys.

See the main report for impact of the SA Chronic Pain ECHO Network on ECHO Hub panel members (Page 95), implementers (SAPMEA) (Page 101) and co-commissioners (Page 104).

Conclusion

The SA Chronic Pain ECHO Network was shown to be feasible, acceptable, and effective. The ECHO program met the learning needs of health care professionals, improved perceived knowledge and confidence to manage patients with chronic pain aligned to the biopsychosocial model, and improved attitudes towards patients with chronic pain and health care professionals.

The evaluation identified enablers and barriers to implementation and proposed recommendations for improvements.

Health care professional participants also identified multi-level barriers to delivering best practice pain care (aligned to a biopsychosocial approach) that could be addressed with further investment.

Co-commissioners, SAPMEA, health care professional participants, ECHO Hub panel members and the GP facilitator thought the ECHO model was a ‘value-add’ compared to other education programs and that the SA Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if resources were available.

Main report: Evaluation of the SA Chronic Pain ECHO Network

Background

Health and service needs related to chronic pain include:

- ➢ High burden of chronic pain on individuals, families, and society (National Strategic Action Plan for Pain Management, Department of Health, Australian Government 2019)
- ➢ Delayed recovery and delayed return to work for some injured workers[11]
- ➢ Long waitlist for tertiary pain services and lack of reach to regional areas[12]
- ➢ Lack of knowledge and confidence among health care professionals to deliver best practice pain care aligned to the biopsychosocial model[13,14]
- ➢ High opioid prescribing, particularly in regional areas[15]

Project ECHO model

Project Extension for Community Health Outcomes (ECHO) was originally developed by the University of New Mexico's Health Science Centre to build the capacities of primary care providers and to increase access to specialist care in rural and underserved populations (https://hsc.unm.edu/echo/).

Project ECHO uses a "Hub" and "Spoke" model to promote knowledge exchange (using didactics and case-based telementoring) between an expert multidisciplinary team of health care professionals (often associated with a tertiary setting) and health care professionals (often in the primary care setting).

A key feature of the Project ECHO model is its flexibility, with four guiding principles[16]: 1) Amplification - use technology to leverage scarce resources; 2) Best practices - reduce disparity; 3) Case-based learning - master complexity; and 4) Data - monitor outcomes to increase impact.

Project ECHO expands primary care provider capacity to manage complex diseases by sharing knowledge, disseminating best practices, and building a Community of Practice. ECHO health programs address more than 70 conditions globally including chronic pain. The model has expanded rapidly with 63 countries establishing ECHO Hubs (as of 2022) (https://hsc.unm.edu/echo/).

In Australia, the Children's Health Queensland Hospital and Health Service is an ECHO Superhub providing ECHO 'immersion training' and support for Australian ECHO Hubs (https://www.echo.qld.gov.au/start-an-echo). A license to implement an ECHO program is signed between the US ECHO Institute and participating organisations.

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[11] Nicholas M, Costa D, Linton SJ, et al. Predicting Return to Work in a Heterogeneous Sample of Recently Injured Workers Using the Brief ÖMPSQ-SF. J Occup Rehabil 2019;29(2):295-302.

[12] Burke AL, Mathias JL, Denson LA. Waiting for multidisciplinary chronic pain services: A prospective study over 2.5 years. Journal of health psychology 2020;25(9):1198-212.

[13] Foster NE, Anema JR, Cherkin D, et al. Prevention and treatment of low back pain: evidence, challenges, and promising directions. The Lancet 2018;391(10137):2368-83.

[14] Ng, W., Slater, H., Starcevich, C., Wright, A., Mitchell, T. and Beales, D., 2021. Barriers and enablers influencing healthcare professionals' adoption of a biopsychosocial approach to musculoskeletal pain: a systematic review and qualitative evidence synthesis. Pain, 162(8), pp.2154-2185.

[15] Australian Institute of Health and Welfare 2018. Opioid harm in Australia and comparisons between Australia and Canada. Cat. no. HSE 210. Canberra: AIHW

[16] https://hsc.unm.edu/echo/what-we-do/about-the-echo-model.html

The Project ECHO Asia-Pacific ECHO Collaborative supports organisations by providing a Community of Practice for implementers of ECHO programs in the region.

SA Chronic Pain ECHO Network

The SA Chronic Pain ECHO Network was implemented by the SA Postgraduate Medical Education Association (SAPMEA) to upskill health care professionals, focusing on primary care providers, in best practice pain care aligned to the biopsychological model. SAPMEA is a not-for-profit medical education organisation with the core function to develop, implement and support medical and health education programs. SAPMEA has established an ECHO Hub to deliver ECHO programs to health care professionals in South Australia (https://sapmea.asn.au/echo).

The SA Chronic Pain ECHO Network was implemented between July and November 2022. All ECHO sessions were held on a Monday from 6.30 – 7.45 pm (https://sapmea.asn.au/echo/pain).

Aims of the SA Chronic Pain ECHO Network

The **overall aims** of the SA Chronic Pain ECHO Network were to:

1. Increase timely and equitable access to best practice pain care[17] and reduce the healthcare disparities in the provision of pain care between metropolitan and regional areas;
2. Increase timely and equitable access to best-practice pain care for patients with compensable workplace injuries;
3. Improve patient experience of care and patient health outcomes;[18]
4. Improve provider experience and satisfaction;
5. Improve cost savings to patients[19] and the health system.[20]

The **specific objectives** of the SA Chronic Pain ECHO Network were to:

1. Meet the learning needs of health care professionals related to best practice pain care[21] with a focus on regional health care professionals and health care professionals managing patients with compensable workplace injuries;
2. Improve the knowledge, confidence, and practice[22] of health care professionals related to best practice pain care;

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[17] Underpinned by a biopsychosocial approach to pain care

[18] E.g., Improve patient self-efficacy, reduce pain severity and interference with activities, improve psychological functioning, reduced pain catastrophising, improved physical functioning, improved work productivity, reduced hospitalisations, and reduced stress, including financial stress, for patients and families due to reduced travel, cost, and work absence for specialist appointments

[19] E.g., Due to reduced travel and work absence for pain care in tertiary pain services, impact on employment due to improvements in physical and psychological functioning

[20] E.g., Due to reduced hospitalisations, reduced health cost due to complications

[21] Underpinned by a biopsychosocial approach to pain care

[22] E.g., Pain assessment, chronic pain management, secondary prevention of chronic pain, opioid non-initiation and deprescribing, use of non-pharmacological strategies in pain care; increased referrals to allied health for physical and behavioural health therapy, reduced referrals to specialists in the tertiary setting, interdisciplinary approach; patient-centred communication, improved quality of care, adopting a biopsychosocial model of care

3. Improve health care professional experience of providing best practice pain care;[23]
4. Create a 'virtual Community of Practice' among health care professionals to improve knowledge-sharing and networks among participants[24] and external to the program, and reduce professional isolation;
5. Create a positive mentorship environment for health care professionals related to best practice pain care.[25]

See Figure 1 for the program logic of the SA Chronic Pain ECHO Network.

Evaluation framework

A participatory evaluation approach[26] was undertaken by the University of Sydney to ensure that the evaluation responded to the needs of practitioners and decision-makers, was feasible (within limited time, budget and resources) and considered context.

The evaluation framework was developed by the University of Sydney in collaboration with the SA Chronic Pain ECHO Advisory Group. It was informed by the implementation and evaluation literature related to ECHO programs and health professional education, and an evaluation undertaken by the University of Sydney for the Western Victoria Primary Health Network ECHO program for persistent pain.[27]

Evaluation questions

The evaluation sought to answer the following questions:

1. How was the SA Chronic Pain ECHO Network implemented and what were the implementation outcomes of the SA Chronic Pain ECHO Network?
2. What was the impact of the SA Chronic Pain ECHO Network on health care professional participants, ECHO Hub panel members, implementers (SAPMEA) and co-commissioners?

See Table 1 for the evaluation questions and sub-questions and corresponding data sources.

The updated *Consolidated Framework for Implementation Research (CFIR)*[28] informed the evaluation of the SA Chronic Pain ECHO Network. The CFIR broadly conceptualises innovation

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[23] Including change in attitudes (e.g., patients, chronic pain, biopsychosocial model of care, other health professional disciplines) and motivation/professional satisfaction

[24] E.g., between the primary care providers 'spokes' and hub panel/guest speaker experts, among the primary care providers 'spokes'

[25] Non-judgement and encouraging mentorship environment/ positive feedback and reinforcement from hub panel members with an 'All Teach, All Learn'/ non-hierarchical learning and mentoring ECHO philosophy

[26] (A) Chouinard JA, Milley P. Uncovering the mysteries of inclusion: Empirical and methodological possibilities in participatory evaluation in an international context. Evaluation and Program Planning. 2018 Apr 1;67:70-8. (B) Duea SR, Zimmerman EB, Vaughn LM, Dias S, Harris J. A Guide to Selecting Participatory Research Methods Based on Project and Partnership Goals. Journal of Participatory Research Methods. 2022 May 23;3(1):32605.

[27] De Morgan S, Walker P, Blyth F, Huckel Schneider C. Evaluation of the WVPHN Project ECHO (Persistent Pain): Final evaluation report. Menzies Centre for Health Policy and Economics, Faculty of Medicine and Health, The University of Sydney, March 30, 2021.

[28] (A) Damschroder LJ, Reardon CM, Opra Widerquist MA, Lowery J. Conceptualizing outcomes for use with the Consolidated Framework for Implementation Research (CFIR): the CFIR Outcomes Addendum. Implementation Science. 2022 Dec;17(1):1-0. (B) Damschroder LJ, Reardon CM, Widerquist MA, Lowery J. The updated Consolidated Framework for Implementation Research based on user feedback. Implementation Science. 2022 Dec;17(1):1-6. (C)Damschroder L, Reardon CM, Widerquist MA, Lowery JC. The updated consolidated framework for implementation research: CFIR 2.0.

outcomes as the success or failure of the innovation, based on the impact of the innovation on three important constituents: innovation recipients, innovation deliverers, and key decision-makers. Note, "if an idea seems new within a setting or for an individual, it is an innovation. This is a broad definition and includes any "thing" that is being implemented."[28]

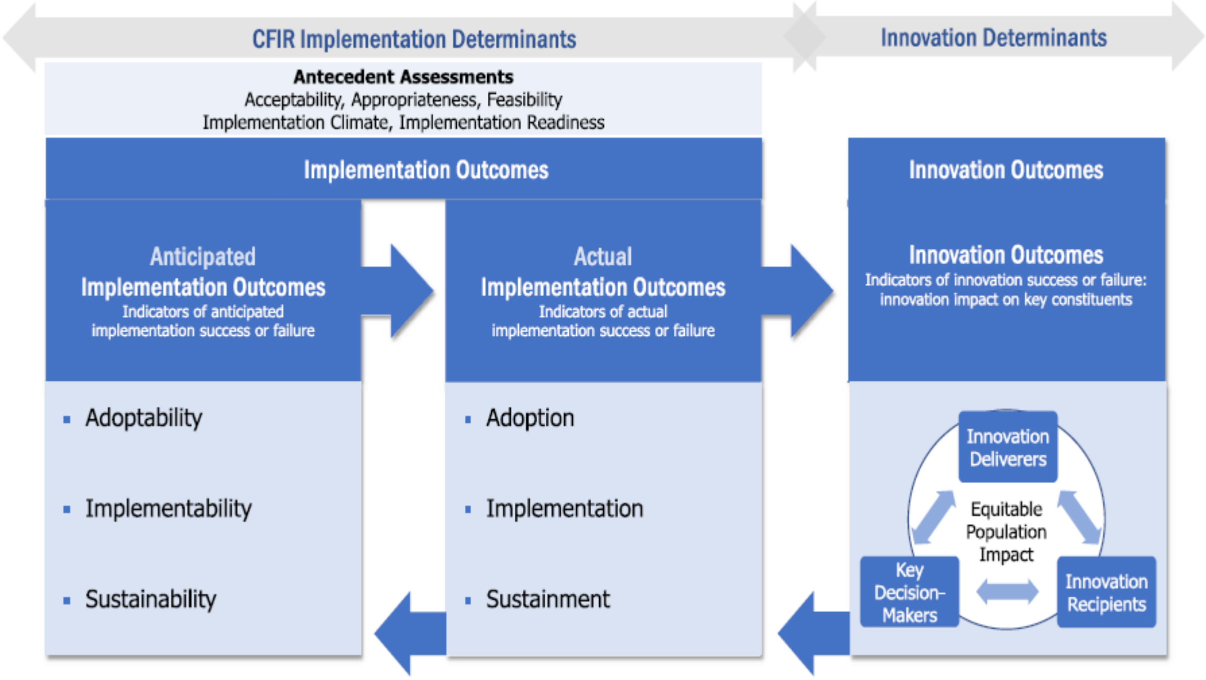


Fig. 1 CFIR Outcomes Addendum diagram

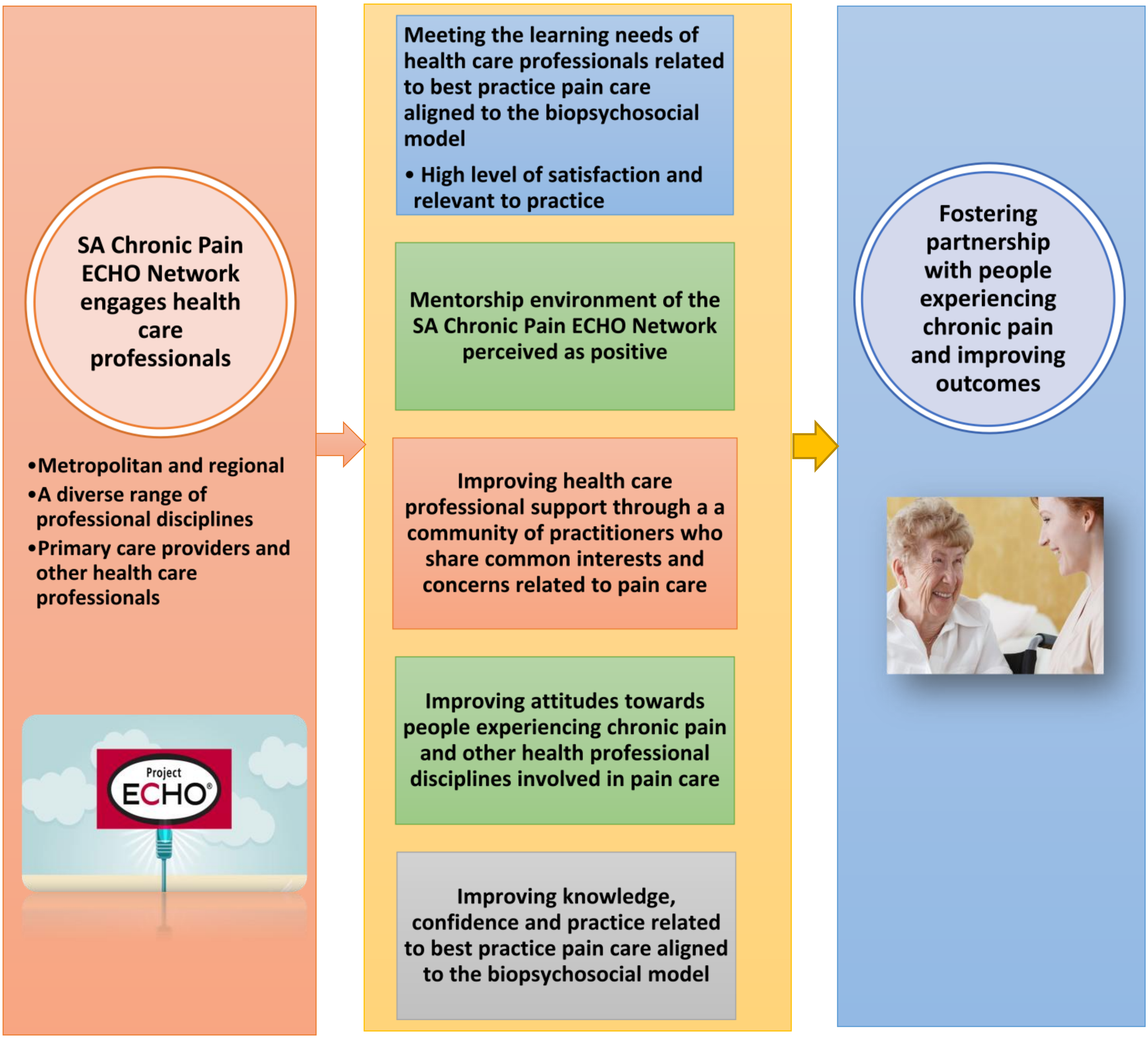
Implementation outcomes measured in this evaluation include reach (at the recipient-level); acceptability and appropriateness (at the setting-level); feasibility; fidelity and adaptations; and barriers and enablers to implementation.

Innovation outcomes measured in this evaluation include satisfaction and relevance; whether the ECHO program was considered a 'value-add' compared to other education programs; perceptions of the mentorship environment; health care professional support; attitudes towards people experiencing pain and other health professional disciplines involved in pain care; perceived knowledge and confidence related to best practice pain care; intention to change practice; perceived practice change; perceived quality of care; perceived multi-level barriers to changing practice; perceptions of the partnership approach to planning, executing, and evaluating; whether the reach of the program met co-commissioners' expectations; and perceived importance of sustaining the SA Chronic Pain ECHO Network and potential factors to sustaining the program.

See Appendix 1 for the evaluation questions and associated theoretical constructs.

Program logic of the SA Chronic Pain ECHO Network

Figure 1: Program logic of the SA Chronic Pain ECHO Network



SA Chronic Pain ECHO Network engages health care professionals

- **Metropolitan and regional**
- **A diverse range of professional disciplines**
- **Primary care providers and other health care professionals**

Meeting the learning needs of health care professionals related to best practice pain care aligned to the biopsychosocial model

- **High level of satisfaction and relevant to practice**

Mentorship environment of the SA Chronic Pain ECHO Network perceived as positive

Improving health care professional support through a a community of practitioners who share common interests and concerns related to pain care

Improving attitudes towards people experiencing chronic pain and other health professional disciplines involved in pain care

Improving knowledge, confidence and practice related to best practice pain care aligned to the biopsychosocial model

Fostering partnership with people experiencing chronic pain and improving outcomes

Table 1: Evaluation questions for the SA Chronic Pain ECHO Network evaluation and corresponding data sources

Evaluation question			**Implementation and innovation outcomes of the SA Chronic Pain ECHO Network**	**Data sources**					
				Evaluation team participation in the SA Chronic Pain ECHO Network Advisory Group	**SAPMEA program records**	**SAPMEA staff consultation**	**Health care professional participants consultation**	**Hub panel members consultation**	**Co-commissioners consultation**
					• SAPMEA enrolment survey data and program participation data • SAPMEA Learning needs assessment	• Online survey of SAPMEA General Manager • Online interview with GP facilitator	• Online satisfaction survey • Online outcome survey • Online case presenters survey	• Online survey of ECHO Hub panel members	• Online survey of co-commissioners
1A	**How was the SA Chronic Pain ECHO Network implemented?**	i.	Governance and planning	**x**		**x**			
		ii.	Engaging Hub panel members, facilitator, health care professional participants, case presenters and facilitator	**x**		**x**			
		iii.	Learning Needs Analysis	**x**	**x**				
		iv.	Delivery of the Chronic Pain ECHO Network: curriculum development, and program activities (10 ECHO sessions and links to further resources)	**x**		**x**			
		v.	Monitoring and evaluation	**x**					
1B	**What were the implementation outcomes of the SA Chronic Pain ECHO Network?**	i.	Reach (at the recipient-level)		**x**				
		ii.	Acceptability and appropriateness (at the setting-level)	**x**		**x**			
		iii.	Feasibility			**x**			
		iv.	Fidelity and adaptations			**x**			
		v.	Barriers and enablers to implementation			**x**	**x**	**x**	

Evaluation question			Implementation and innovation outcomes of the SA Chronic Pain ECHO Network	Data sources					
				Evaluation team participation in the SA Chronic Pain ECHO Network Advisory Group	SAPMEA program records	SAPMEA staff consultation	Health care professional participants consultation	Hub panel members consultation	Co-commissioners consultation
					• SAPMEA enrolment survey data and program participation data • SAPMEA Learning needs assessment	• Online survey of SAPMEA General Manager • Online interview with GP facilitator	• Online satisfaction survey • Online outcome survey • Online case presenters survey	• Online survey of ECHO Hub panel members	• Online survey of co-commissioners
2	**What was the innovation impact of the SA Chronic Pain ECHO Network?**								
2A	**What was the impact of the SA Chronic Pain ECHO Network on health care professional participants?**	i.	Satisfaction and relevance				**X**		
		ii.	Whether the ECHO program was considered a ‘value-add’ compared to other education programs				**X**		
		iii.	Perceptions of the mentorship environment				**X**		
		iv.	Health care professional support				**X**		
		v.	Attitudes towards people experiencing pain and other health professional disciplines involved in pain care				**X**		
		vi.	Perceived knowledge and confidence related to best practice pain care aligned to the biopsychosocial model				**X**		
		vii.	Intention to change practice, perceived practice change, and perceived quality of care				**X**		
		viii.	Perceived multi-level barriers to changing practice				**X**		
		ix.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program				**X**		

Evaluation question			**Implementation and innovation outcomes of the SA Chronic Pain ECHO Network**	**Data sources**					
				Evaluation team participation in the SA Chronic Pain ECHO Network Advisory Group	**SAPMEA program records**	**SAPMEA staff consultation**	**Health care professional participants consultation**	**Hub panel members consultation**	**Co-commissioners consultation**
					• SAPMEA enrolment survey data and program participation data • SAPMEA Learning needs assessment	• Online survey of SAPMEA General Manager • Online interview with GP facilitator	• Online satisfaction survey • Online outcome survey • Online case presenters survey	• Online survey of ECHO Hub panel members	• Online survey of co-commissioners
2B	**What was the impact of the SA Chronic Pain ECHO Network on ECHO Hub panel members?**	i.	Satisfaction and experience					**X**	
		ii.	Perceptions of the support received to deliver the ECHO sessions					**X**	
		iii.	Whether the ECHO program was considered a ‘value-add’ compared to other education programs					**X**	
		iv.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program					**X**	
2C	**What was the impact of the SA Chronic Pain ECHO Network on implementers (SAPMEA)?**	i.	Perceptions of the partnership approach to planning, executing, and evaluating			**X**			
		ii.	Experience of implementing the program			**X**			
		iii.	Whether the ECHO program was considered a ‘value-add’ compared to other education programs			**X**			
		iv.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program			**X**			

Evaluation question			**Implementation and innovation outcomes of the SA Chronic Pain ECHO Network**	**Data sources**					
				Evaluation team participation in the SA Chronic Pain ECHO Network Advisory Group	**SAPMEA program records**	**SAPMEA staff consultation**	**Health care professional participants consultation**	**Hub panel members consultation**	**Co-commissioners consultation**
					• SAPMEA enrolment survey data and program participation data • SAPMEA Learning needs assessment	• Online survey of SAPMEA General Manager • Online interview with GP facilitator	• Online satisfaction survey • Online outcome survey • Online case presenters survey	• Online survey of ECHO Hub panel members	• Online survey of co-commissioners
2D	**What was the impact of the SA Chronic Pain ECHO Network on co-commissioners?**	i.	Perceptions of the partnership approach to planning, executing, and evaluating						**X**
		ii.	Whether the reach of the program met their expectations (i.e., overall attendance and attendance per ECHO, and diversity of participants related to range of professional disciplines, practice locations, years in practice, regional health care professionals and health care professionals working in compensable settings)						**X**
		iii.	Whether the ECHO program was considered a 'value-add' compared to other education programs						**X**
		iv.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program						**X**

Methods of the evaluation

The evaluation is a mixed method descriptive study.

Evaluation sample frame

The evaluation sampling frame of participants included the following:

1. **Health care professionals** from a range of professional disciplines participated in the ECHO sessions. The SA Chronic Pain ECHO Network overall was capped at 60 participants to ensure that there are not too many participants to be a barrier to group discussion. One health care professional at each ECHO session self-nominated to present a case for discussion (N=9), apart from ECHO session 10 which included a Q and A session rather than a case presentation.
2. **ECHO Hub panel members** (N=6) from a range of professional disciplines (multidisciplinary) have been selected by the SA Chronic Pain ECHO Network Advisory Group to form the Hub panel due to their expertise in managing patients with chronic pain.
3. **Co-commissioners (ReturnToWorkSA and the Country SA PHN)** including one or two executive level and/or program level representatives from each organisation participated in the SA Chronic Pain ECHO Network Advisory Group
4. **Implementers (SAPMEA)** - General Manager and GP facilitator

See Figure 2 for the methods of the evaluation.

Development and dissemination of online surveys

The online surveys were developed by the University of Sydney in collaboration with the SA Chronic Pain ECHO Network Advisory Group. The Advisory Group includes stakeholders and clinicians including a Clinical Psychologist and an Australian Physiotherapy Association titled pain physiotherapist. The surveys were also piloted with two GPs. The final survey questions were downloaded into Qualtrics by the University of Sydney. SAPMEA disseminated the online survey links to participants.

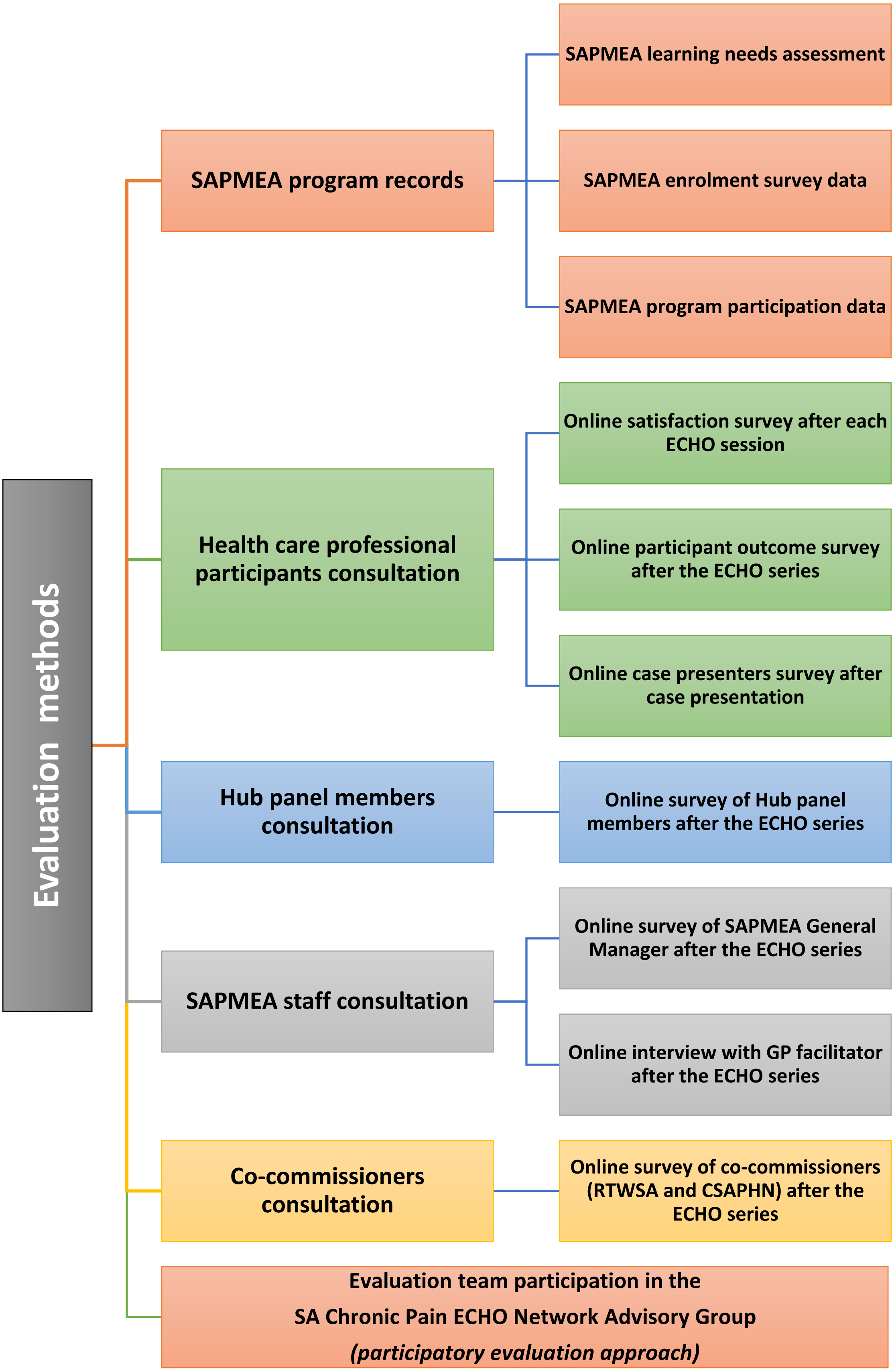
Data analysis

Survey data was exported from Qualtrics into an Excel spreadsheet for analysis. Quantitative data in the online surveys were analysed in Statistical Analysis System (SAS) 9.4 and enrolment data were analysed using SPSS Statistics software (Version 28) to elicit descriptive statistics by one author (PW). Thematic analysis (Miles et al. 2014) of the qualitative data (i.e., open questions) was undertaken by the primary author (SDM) and second author (PW). The themes and subthemes were derived from the data by the primary author (SDM) and reviewed by the second author (PW) for validation, resolving any disagreements by discussion and consensus.

Ethics approval

Ethics approval for the evaluation was granted by The University of Sydney, Human Research Ethics Committee (HREC) [2022/424].

Figure 2: Methods of the evaluation of the SA Chronic Pain ECHO Network



Evaluation Question 1A: How was the SA Chronic Pain ECHO Network implemented?

i. Governance and planning

A partnership approach with shared governance and collaborative decision-making was used in this project. The SA Chronic Pain ECHO Network Advisory Group was established to provide input into planning; recruitment number limit; selection of Hub panel members; curriculum topics and didactics content review; review of case studies; implementation processes; and evaluation of the program. The SA Chronic Pain ECHO Network (N=10) included representatives from the following:

- Menzies Centre for Health Policy and Economics, University of Sydney
- Project ECHO content expert and WorkSafe Victoria consultant (Dr Anne Daly)
- SA Postgraduate Medical Education Association (SAPMEA)
- Country SA Primary Health Network (CSAPHN)
- ReturnToWorkSA (RTWSA)
- Lead, SA Statewide Chronic Pain Clinical Network - Commission on Excellence and Innovation in Health (CEIH) (Associate Professor Anne Burke)

The SA Chronic Pain ECHO Network met several times during the planning phase; were provided with email updates from SAPMEA throughout the program delivery phase; and met after the program was completed for the evaluation team to present the evaluation results.

See Figure 3 for the overall implementation process for the SA Chronic Pain ECHO Network.

ii. Engaging Hub panel members, facilitator, participants and case presenters

Recruitment of ECHO Hub panel members and facilitator

Potential ECHO hub panel members were identified by the SA Chronic Pain ECHO Network Advisory Group. All potential ECHO hub panel members who were contacted consented to participate in the SA Chronic Pain ECHO Network. All panel members received an honorarium for their participation.

The ECHO hub panel members were all senior health care professionals within their respective disciplines and represented a range of professional disciplines including a GP with expertise in pain management, an Australian Physiotherapy Association titled pain physiotherapist, and two clinical psychologists with expertise in pain management (shared position). The facilitator was a GP recruited by SAPMEA.

Training in the ECHO model

Two SAPMEA representatives (including the General Manager) have completed the Children's Health Queensland Hospital and Health Service ECHO Superhub Immersion Training. Other SAPMEA staff members who have been involved in SAPMEA's ECHO programs have been trained and mentored by the General Manager about the ECHO model and how to implement and deliver ECHO programs. SAPMEA meet regularly with the Children's Health Queensland Hospital and Health Service ECHO Superhub. SAPMEA also participates in the Project ECHO Asia-Pacific ECHO Collaborative.

The GP facilitator observed another SAPMEA ECHO program (AOD ECHO program) but did not receive formal training in the ECHO model. Hub panel members did not receive formal training in the ECHO model.

Other preparation included:

- Initial meeting with Hub panel members, SAPMEA and evaluation team prior to commencement of the SA Chronic Pain ECHO Network to discuss the ECHO model, the role of a Hub panel member, the evaluation, and the support to be provided by SAPMEA.
- For each ECHO session, SAPMEA provided a 'Runsheet' for the 75-minute ECHO session to Hub panel members and a PowerPoint template for presentations.

Recruitment of participants

SAPMEA provides information about upcoming and past ECHO programs on their website (https://sapmea.asn.au/echo). The SA Chronic Pain ECHO Network was promoted on SAPMEA's ECHO webpage (https://sapmea.asn.au/echo/pain). The program was also promoted via SAPMEA's social media platforms (Facebook and LinkedIn), e-newsletter and a promotional flyer sent to SAPMEA's networks and the networks of ReturnToWorkSA, Country SA PHN, Adelaide PHN, SA Statewide Chronic Pain Clinical Network, Rural Doctors Workforce Agency, SA Pharmacy Network and all SA GP Integration Units.

Prior to the official SA Chronic Pain ECHO Network launch and opening of registrations, an expression of interest (EOI) register captured the interest of health care professionals in participating in the SA Chronic Pain ECHO Network. After the ECHO launch, people on the EOI list were emailed and invited to register for the ECHO program. Regular promotion via SAPMEA and stakeholders continued until capacity was reached.

Only South Australian health care professionals, including primary care providers and other interested health professionals, were eligible to participate in the SA Chronic Pain ECHO Network.

Maximum number of enrollees in the SA Chronic Pain ECHO Network

Registration for the SA Chronic Pain ECHO Network was capped at 60-61 participants, agreed by consensus at the planning meeting of the SA Chronic Pain ECHO Network Advisory Group. The decision was based on SAPMEA's experience with ECHO program attendance and recommendation from the Children's Health Queensland Hospital and Health Service ECHO Superhub to expect approximately 50% of registered participants to attend an ECHO session. With a cap of 60 participants, the number of participants per ECHO session was expected to be approximately 30, which would be manageable for the facilitator in the online format and allow participants to contribute to the discussion and assist in creating a 'Community of Practice'.

Identify the need	•High burden of chronic pain on individuals, families, and society •Delayed recovery and delayed return to work for some injured workers •Long waitlist for tertiary pain services and lack of reach to regional areas •Lack of knowledge and confidence among health care professionals to deliver best practice pain care aligned to the biopsychosocial model •High opioid prescribing in some areas
Resources to deliver the SA Chronic Pain ECHO Network	•Department of Health and Aged Care, Australian Government grant (lead - University of Sydney) - Pain Management - Health Professional Education and Training (2020-24; GO2810) •Further investment/co-commissioners - Country SA Primary Health Network (CSAPHN) and Return to Work SA (RTWSA) •South Australian Postgraduate Medical Education Association (SAPMEA) delivered the ECHO program: https://sapmea.asn.au/echo/echo
Governance and planning using a partnership approach	•SA Chronic Pain ECHO Network Advisory Group - CSAPHN; RTWSA; SAPMEA; University of Sydney; Statewide Chronic Pain Clinical Network (CEIH); ECHO content expert and WorkSafe Victoria consultant
Engaging	•Hub panel members (N=6) •Participants/case presenters - metropolitan and regional health care professionals and health care professionals managing patients with compensable work-place injuries •ECHO GP facilitator
Learning Needs Assessments	•Survey of potential participants during the EOI phase of their learning needs related to chronic pain management •Survey of participants as part of the enrolment form of their specific learning needs related to each of the curriculum topics
Delivery of the SA Chronic Pain ECHO Network	•Curriculum development •10 ECHO sessions of 75 mins (fortnightly over 20 weeks) •Links to further resources
Monitoring and evaluation	•Quality improvement •Establishing the value of the SA Chronic Pain ECHO Network

Figure 3: Implementation process for the SA Chronic Pain ECHO Network

How participants heard about the SA Chronic Pain ECHO Network

Most participants heard about the SA Chronic Pain ECHO Network through SAPMEA. *See Table 2 below for an outline of how participants heard about the SA Chronic Pain ECHO Network.*

Table 2: How participants heard about the SA Chronic Pain ECHO Network

How participants heard about the SA Chronic Pain ECHO Network	n	%
SAPMEA/Previous SAPMEA ECHO	26	59
ReturnToWorkSA	2	4.5
Adelaide PHN	4	9.1
Country SA PHN	1	2.3
SA Health/Wellbeing SA	3	6.8
Personal communication from a colleague	5	11.4
SA Ambulance Service Pain Management Working Group	1	2.3
Dr Anne Daly (Titled Pain Physiotherapist) from her APA presentations	1	2.3

Data source: SAPMEA enrolment and participation data

Incentives to participate in the SA Chronic Pain ECHO Network

The SA Chronic Pain ECHO Network was accredited with Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM) as follows:

- RACGP members who attended at least 4 ECHO sessions automatically received 40 Accredited CPD points (Category 1) for a Reviewing Performance activity under the Peer-Group Learning model. RACGP members who attend fewer than 4 sessions, received an attendance certificate to self-claim their CPD points.
- ACRRM members automatically received Case Discussion hours under the Performance Review Category for each session they attended.

All other participants were sent a certificate which listed the ECHO session(s) they attended at the end of the ECHO series for them to claim their Continuing Professional Development points with their provider.

Case presentation

SAPMEA included a question in the enrolment form asking participant if they had a case for discussion (yes/no/unsure). All those who responded 'yes' to this question were directly emailed with the case template and invited to submit their cases. Throughout the ECHO program, SAPMEA emailed participants who responded 'yes' and who had not sent through a case and emailed participants who responded 'unsure' and asked if they would like to present a case (having now observed how the case is presented and discussed during an ECHO session). SAPMEA also encouraged participants at the end of each session to send through their cases.

Over 10 health care professionals indicated 'yes' that they had a case they wanted to present for discussion. However, for the last ECHO session, there was not a case presenter available, so the format of the session was adapted to a didactic and a Q and A.

The case for most ECHO sessions was aligned to the didactic topic. However, this was not always possible due to the timing of receiving the cases and the nature of the case study (e.g., more than one participant had a low back pain (LBP) case but there was only one didactic topic on LBP).

Also, SAPMEA reported that some of the didactic topics were difficult to have a case study focused on the topic e.g., explaining pain to patients.

The case template was co-designed by the SA Chronic Pain ECHO Network Advisory Group. The main challenge for SAPMEA was the ongoing follow-up to get potential case presenters to complete the case template in a timely manner.

SAPMEA helped some case presenters populate their case information into the template or with insertion of imaging and investigations results (de-identified). SAPMEA reviewed and formatted the case study before forwarding to the Hub panel members and the evaluation team to review and check if any further information was required.

There were no additional incentives provided for case presentation (e.g., multidisciplinary case conference Medicare items used in some ECHO programs) apart from feedback from the Hub panel members during the ECHO session.

In two ECHO sessions, due to the complexity of the case study requiring more time than allocated, Hub panel members provided a written response to case presenter's questions which was then emailed directly to the case presenter.

iii. Learning Needs Assessments

The learning needs of participants was assessed by:

1. An online survey of potential participants during the EOI phase about their learning needs related to chronic pain management: *a) What would you like to gain from joining the Chronic Pain ECHO Network?; b) From the list below, please indicate in the free-text box your preferred topics to feature in the program curriculum (select at least 5, with 1 being your top preference); and c) please share any requested topics that are not listed?*
2. An online survey of participants as part of the enrolment form of their specific learning needs related to each of the curriculum topics: *a) For each of the curriculum topics listed below, please share your learning needs and requests for specific focus areas.*

iv. Delivery of the Chronic Pain ECHO Network: Program activities and curriculum development

Program activities of the SA Chronic Pain ECHO Network

The program activities are outlined below.

10 ECHO sessions of 75 mins (fortnightly over 20 weeks)

- **10 didactic presentations by Hub panel members**
- **9 case presentations by health care professional participants**
- **1 Q and A session**

painHEALTH

Further resources (provided on SAPMEA ECHO webpage after each ECHO session)

- **recording and slides from the didactic presentations**
- **links to relevant health care professional and consumer resources**

Figure 4: Program activities of the SA Chronic Pain ECHO Network

Curriculum development

Selection of topics

A summary of possible topics was developed from the learning needs assessments and recommended topics from the SA Chronic Pain ECHO Network Advisory Group based on their views of essential knowledge in chronic pain management. In a meeting of the Advisory Group, the summary of topics was discussed, and consensus was reached for the ten priority topics for the ECHO program. *See Table 3 for the curriculum topics of the SA Chronic Pain ECHO Network.*

Table 3: Curriculum topics for the SA Chronic Pain ECHO Network

ECHO Session	Didactic curriculum topic
1	Chronic pain management fundamentals – the biopsychosocial model of pain
2	Explaining pain to patients – language, messaging and helping reduce pain catastrophising
3	Psychological strategies and self-management approaches to pain management
4	Physical therapies and activity pacing
5	Types of chronic pain with a focus on neuropathic pain & Complex Regional Pain Syndrome (CRPS)
6	Low back pain
7	Safe and effective use of medicines for chronic pain
8	Strategies to support opioid tapering in people with chronic pain
9	Secondary prevention of chronic pain in the pre/post-surgery and post-injury phase
10	Sleep management

Development of didactics

'Didactic leads' for each ECHO session were identified during the Hub panel briefing meeting with SAPMEA, Hub panel members and the evaluation team. Each ECHO session had 1-3 Hub panel members assigned as the lead(s) for the didactic presentation. The leads developed the didactic presentation and shared the didactic presentation with the other Hub panel members, the GP facilitator, and the evaluation team for review and feedback to ensure that the content was based on current evidence-based best practice pain care.

SAPMEA staff reviewed the presentations for non-clinical aspects (such as typos, checking that embedded video links worked, total number of slides).

Hub panel members were also provided with a guidance document developed by the evaluation team and presented in the Hub panel briefing meeting to ensure high quality evidence-based didactics. Principles of pain care recommended for highlighting in ECHO didactics included: *relevance to practice; work as a part of the journey rather than the final destination; a biopsychosocial approach to pain care; multidisciplinary care; evidence-based; high-value care; co-ordination of care;* and *consumer pain priorities.*[29] *See Appendix 2 for guidance document.*

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[29] Slater H, Jordan JE, O'Sullivan PB, Schütze R, Goucke R, Chua J, Browne A, Horgan B, De Morgan S, Briggs AM. 'Listen to me, learn from me': a priority setting partnership for shaping interdisciplinary pain training to strengthen chronic pain care. Pain. 2022 Apr 6.

Evaluation Question 1B: What were the implementation outcomes of the SA Chronic Pain ECHO Network?

i. Reach (at the recipient-level)

Enrolment and participation

- 61 health care professionals enrolled in the SA Chronic Pain ECHO Network
- 44 health care professionals participated in at least one ECHO session (72.1% of enrollees)
    - Of the 44 hcps that participated in the ECHO, the minimum number of sessions attended was 1 and the maximum was 10 with an average of 5.3 sessions attended.
    - Number of participants who attended more than 50% of the series (e.g., 5 sessions or more) = 26
    - Number of participants who attended 90-100% of the series (e.g., 9 or 10 sessions) = 9

Participation across the series

- Participation decreased across the ECHO series with 33 participants attending ECHO session 1; 22-29 participants attended ECHO session 2-8; and 15-17 participants attended ECHO session 9-10 (*see Figure 5*).

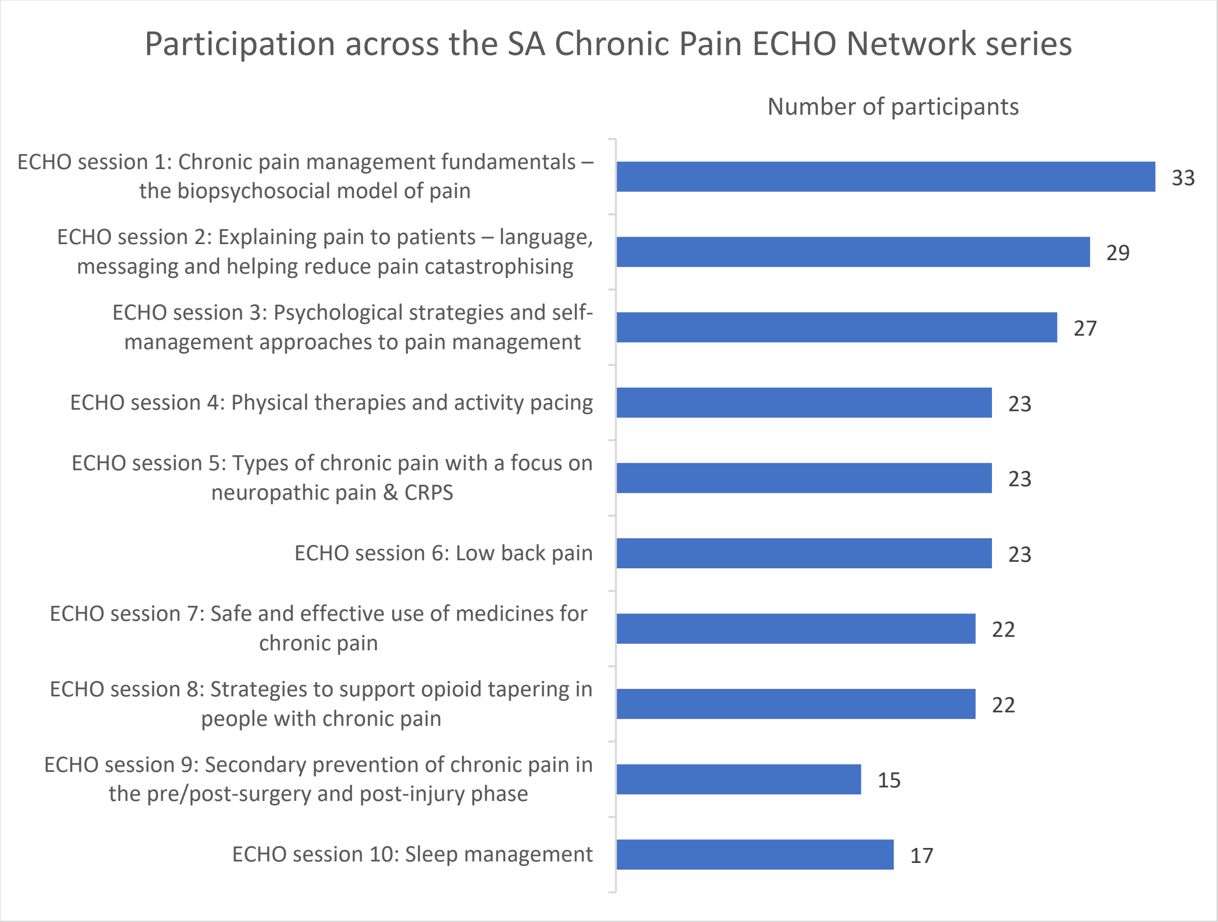

Figure 5: Participation across the SA Chronic Pain ECHO Network series

Professional disciplines represented

A wide range of professional disciplines were represented in the SA Chronic Pain ECHO Network. Half of health care professionals were GPs (n=21, 48%) and half of health care professionals represented a range of other professional disciplines including nurses or nurse practitioners (n=7, 16%), physiotherapists (n=5, 11%), paramedics (n=3, 7%), pharmacists (n=2, 5%), social workers (n=1, 2%), educational role (n=1, 2%), podiatrists (n=1, 2%), psychiatry RMO (n=1, 2%), psychologist (general) (n=1, 2%), and a chronic pain community-based program co-ordinator (n=1, 2%) (*see Figure 6*).

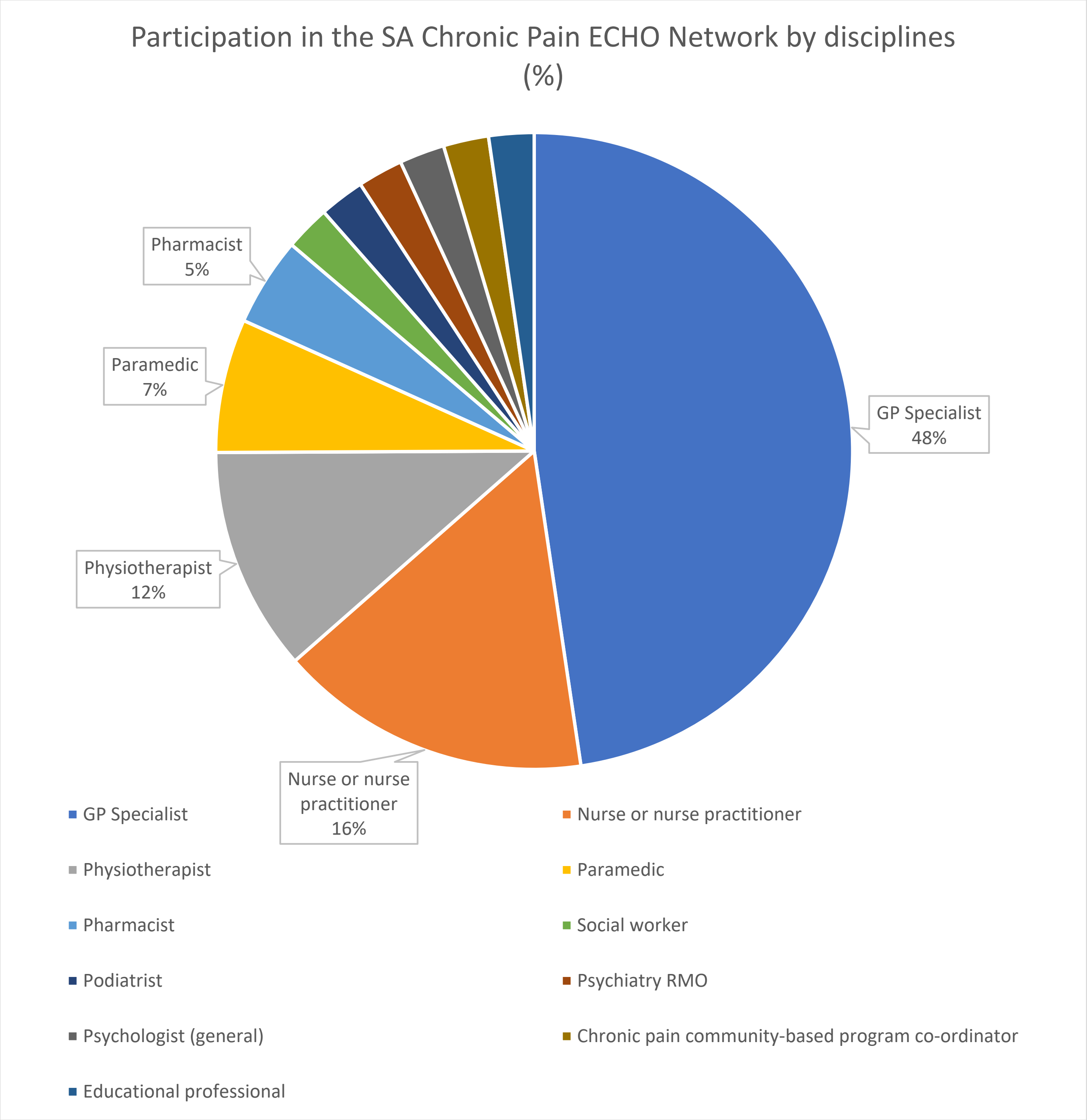

Figure 6: Participation in the SA Chronic Pain ECHO Network by discipline (%)

Years in practice

The SA Chronic Pain ECHO Network included health care professionals with a range of professional experience. Over half of participants had greater than 10 years experience in practice (n=26, 59%) (*see Figure 7*).

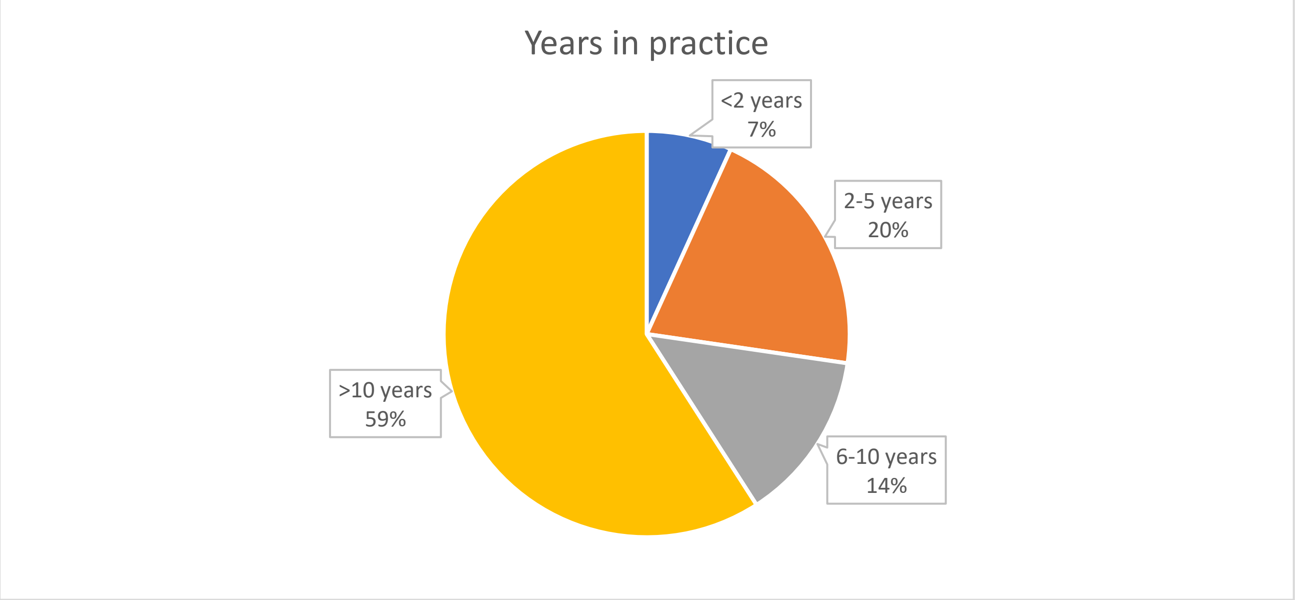

Figure 7: Years in practice of participants of the SA Chronic Pain ECHO Network

Number of patients with chronic pain managed in the past 12 months

Approximately one third of participants managed over 30 patients with chronic pain in the past 12 months (n=15, 34%) and one third of participants managed 11-30 patients (n=14, 32%). Three participants did not manage any patients with chronic pain in the last 12 months (*see Figure 8*).

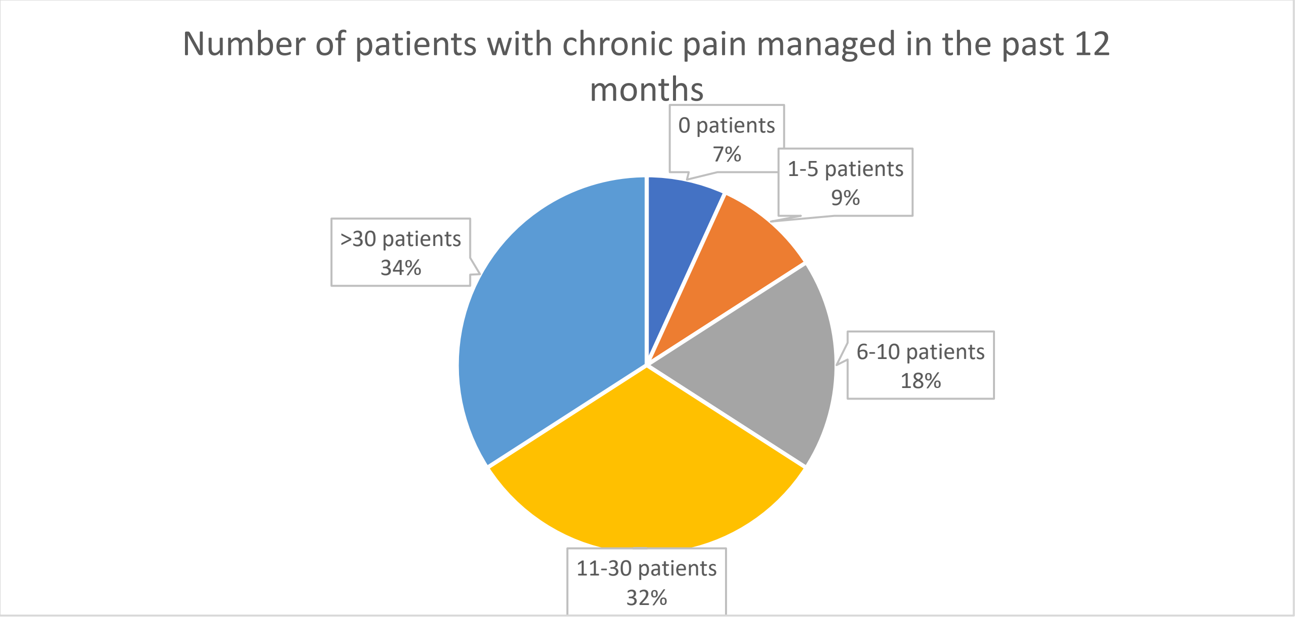

Figure 8: Number of patients with chronic pain that participants of the SA Chronic Pain ECHO Network managed in the past 12 months

Number of patients with workplace injuries managed under the workers compensation scheme in the past 12 months

Approximately one third of participants did not manage any patients with workplace injuries managed under the workers compensation scheme in the past 12 months (n=15, 34%), one third of participants managed 1-5 patients (n=15, 34%) 23% managed 6-30 patients and 9% managed >30 patients (*see Figure 9*).

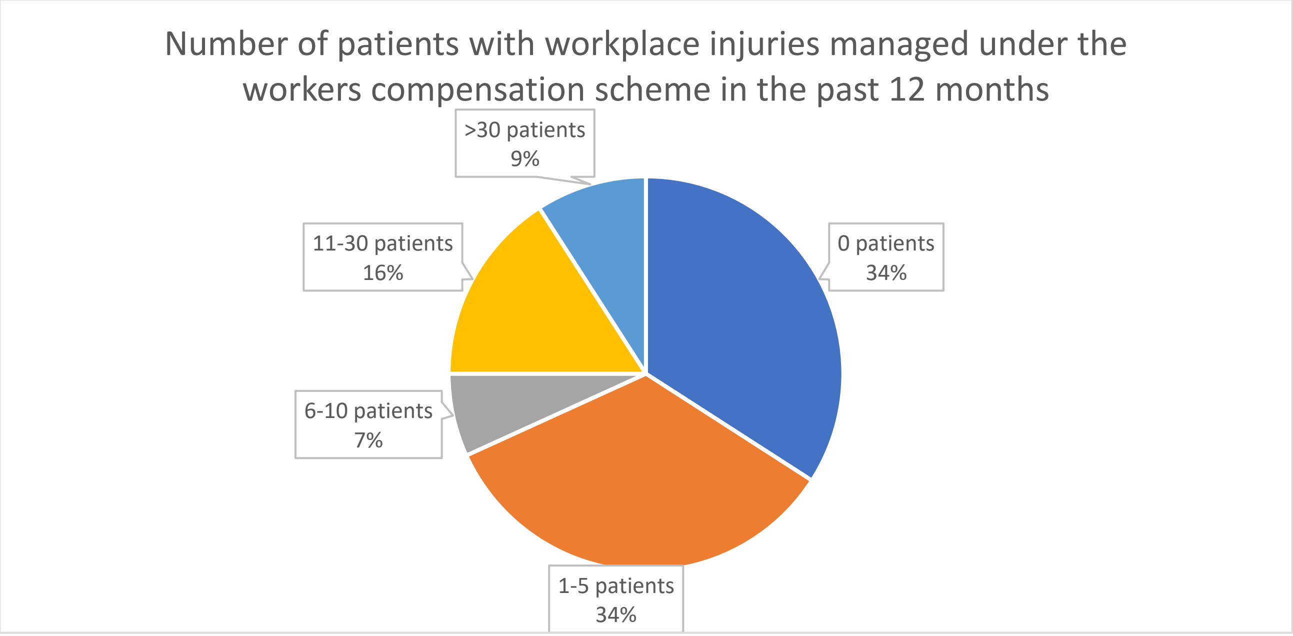

Figure 9: Number of patients with workplace injuries managed under the workers compensation scheme that participants of the SA Chronic Pain ECHO Network consulted with in the past 12 months

Primary work location

Approximately one third of participants were from regional SA (n=13, 30%) and two thirds from metropolitan SA. No participants were from remote SA (*see Figure 10*).

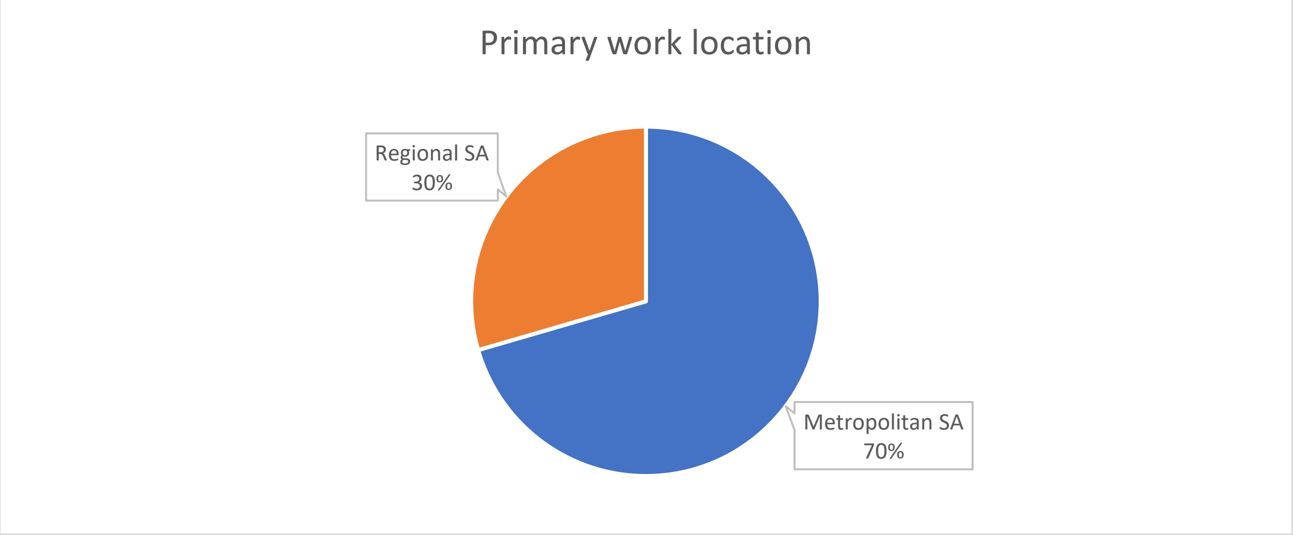

Figure 10: Primary work location of participants of the SA Chronic Pain ECHO Network (metro/regional)

Type of workplace setting

Approximately half of participants worked in a team of practitioners from the same clinical discipline, 41% worked in a team of practitioners from different clinical disciplines and 11% were from solo practices (*see Figure 11*).

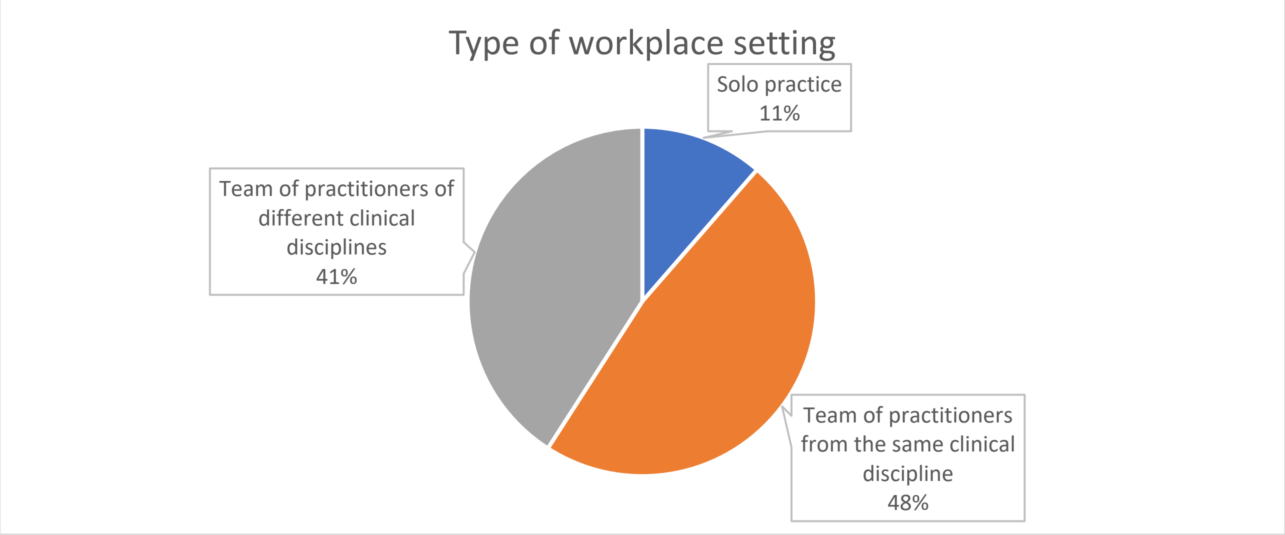

Figure 11: Type of workplace setting of participants of the SA Chronic Pain ECHO Network

ii. Acceptability and appropriateness (at the setting-level)

SAPMEA had established the South Australian ECHO Program in 2021 (the first ECHO Hub in SA) with grant funding from Wellbeing SA and contribution from SAPMEA, Adelaide PHN and Country SA PHN. In 2022, SAPMEA implemented Neurology, Cardiology, Luminal Gastroenterology, and COPD ECHO programs and in 2023, SAPMEA will implement Palliative Care, Advanced Dementia and Emergency Medicine ECHO programs.

The ECHO model for interdisciplinary pain management education was considered an acceptable model and had the buy-in of executive level staff from SAPMEA, Country SA PHN and ReturnToWorkSA. The model was considered to be appropriate for primary care providers and other health care professionals to improve knowledge, confidence, and professional support.

iii. Feasibility

The SA Chronic Pain ECHO Network was feasible for SAPMEA to implement within the timeframe in terms of sufficient funding and other resources (staffing, systems and processes, technology, and stakeholder networks to support recruitment of participants and Hub panel members with content expertise).

> *"Overall, the program was feasible for SAPMEA to implement as we have dedicated staff trained and with experience in the planning, implementation and delivery of ECHO programs. While we were running the Chronic Pain ECHO Program, we had 2 other ECHO Programs running concurrently so were able to streamline our processes and use of staff time for better efficiency. Having delivered other ECHO programs in the past helped us as we had established existing processes and systems to facilitate the planning and*

> *delivery of the ECHO program/sessions and could use learnings and strategies from past sessions."* [SAPMEA General Manager]

The partnership approach to the planning, curriculum development, delivery and evaluation of the SA Chronic Pain ECHO Network was also perceived as an enabler:

> *"We were able to draw upon a wider pool of knowledge and experience in chronic pain education, ECHO programs and evaluation, for the development and implementation of the Chronic Pain ECHO Program. This helped create a more 'fit for purpose' program and mitigated the risk of mistakes/low quality product by having broad consultation and feedback. We were able to leverage the networks and skills of the partner organisations e.g., for promotion/communication or for the evaluation. Having the partner organisations also brings greater credibility to the program."* [SAPMEA General Manager]

iv. Fidelity and adaptations

A key feature of the Project ECHO model is its flexibility, with four guiding principles[30]: 1) Amplification - use technology to leverage scarce resources; 2) Best practices - reduce disparity; 3) Case-based learning - master complexity; and 4) Data - monitor outcomes to increase impact. The SA Chronic Pain ECHO Network adhered to the Project ECHO principles.

Most ECHO sessions included a didactic followed by a case presentation. However, ECHO session 10 included a didactic followed by a Q and A session, which enabled participants to ask questions about managing their patients with chronic pain. The rationale for the adaptation was that there was not a case presenter available for the last session and a Q and A session could be used as an opportunity to discuss participants' concerns and provide further information. The Q and A session was well-received by participants and Hub panel members.

v. Enablers and barriers to implementation

The highlighted enablers and barriers to implementation of the SA Chronic Pain ECHO Network are informed by the consultation with SAMPEA staff (General Manager and GP facilitator), Hub panel members and health care professional participants. *See Table 4 and 5.*

Table 4: Enablers to implementation of the SA Chronic Pain ECHO Network

Enabler		Description
i.	Tension for change	• Long waiting lists for tertiary pain clinics and need for greater involvement of primary care
ii.	Unmet needs of health care professionals	• Motivation for primary care providers to participate due to lack of knowledge and confidence in best practice pain care aligned to biopsychosocial model • ECHO program responded to learning needs - established via a survey of potential participants during the EOI phase of their learning needs related to chronic pain management; a survey of participants as part of the enrolment

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[30] https://hsc.unm.edu/echo/what-we-do/about-the-echo-model.html

Enabler		Description
		form of their specific learning needs related to each of the curriculum topics; and a Q and A session in ECHO session 10
iii.	Project ECHO model	• The ECHO model is an evidenced-based model of interdisciplinary health professional education adapted to a range of conditions and implemented in over 60 countries • The ECHO model is well-designed and packaged (Licensing, Immersion Training, ECHO branding, ECHO principles) • Adaptability of the ECHO model to the local context and learning needs of participants • Training and support provided by the QLD ECHO Superhub and the Project ECHO Asia-Pacific ECHO Collaborative
iv.	Format of the ECHO program	• Feasibility of using online mode for education (the COVID-19 pandemic has accelerated interest and confidence of health care professionals in e-networking and e-education) • Feasibility for health care professionals to attend a 75min ECHO session after business hours • Adapting the format for ECHO session 10 to include a Q and A rather than a case (due to a lack of a case presenter for that session) – well received by participants
v.	SAPMEA	• Leadership, commitment, and enthusiasm of SAPMEA General Manager • SAPMEA advocacy for funding to implement the SA Chronic Pain ECHO Network • SAPMEA's reputation, experience, and capability in implementing health professional education and specifically ECHO programs - SAPMEA is the first, and currently only, ECHO Hub established in South Australia to deliver the ECHO model locally to the healthcare community • SAPMEA has established systems, processes, and templates; and staffing to efficiently deliver ECHO programs • SAPMEA has a dedicated Webpage for the SA Chronic Pain ECHO Network providing the recording and slideset from each ECHO session and a link to further resources • SAPMEA has established networks of health care professionals including GPs and other health care professionals to recruit potential participants • SAPMEA has established networks of key stakeholders and content experts to identify potential hub panel members and facilitator for the SA Chronic Pain ECHO Network
vi.	Co-commissioners RTWSA and CSAPHN	• Executive level buy-in for health professional education and the ECHO model focusing on best practice pain care • CSAPHN co-commissioner of other ECHO programs (AOD, Cardiology, Neurology and Gastroenterology) • RTWSA and CSAPHN have established networks of health care professionals including GPs and other health care professionals to recruit potential participants • RTWSA and CSAPHN have established networks of key stakeholders and content experts to identify potential hub panel members • Funding provided to implement the ECHO program (including SAPMEA delivery costs and an honorarium for Hub panel members)

Enabler		Description
vii.	Consortium Pain Management Education Project	• Funds to pilot (implementation advice and evaluation) of an ECHO program for chronic pain with a Primary Health Network and partners provided by the Department of Health and Aged Care, Australian Government as part of a grant (2020-24; GO2810), Pain Management - Health Professional Education and Training. • Experience of the University of Sydney evaluation team in conducting the evaluation of the Western Victoria Primary Health Network Project ECHO (Persistent Pain) program, 2021 • Opinion leader – 'ECHO champion', 'work compensation organisation champion' - experience of Dr Anne Daly (Project ECHO content expert and WorkSafe Victoria consultant) for the Western Victoria Primary Health Network Project ECHO (Persistent Pain) program
viii.	Partnership approach (SA Chronic Pain ECHO Network Advisory Group)	• Partnership approach to planning, implementation and evaluation and selection of potential hub panel members • Partnership approach to identifying curriculum topics and content review of didactics to ensure evidence-based best practice • University of Sydney evaluation team and Dr Anne Daly review of each ECHO didactic to ensure that it was evidence based and aligned to biopsychosocial approach • Opinion leader – 'pain champion' A/Prof Anne Burke
ix.	ECHO Hub panel members	• Commitment and expertise of the Hub panel members • Multidisciplinary representation • Number of Hub panel members (N=6) • Collaboration and teamwork of the Hub panel members - assignment of leads for didactics so that the presentation burden was shared between Hub panel members, and providing feedback to others (peer review model for the evidence-based education content) • Creating a positive, non-judgemental, and encouraging environment for health care professionals to present a case and contribute to the discussion
x.	Facilitator	• Clinical knowledge and facilitation skills of GP facilitator
xi.	Incentives	• SA Chronic Pain ECHO Network was accredited with Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM) – Continuing Professional Development points • CPD certificate - other professional disciplines (self-lodge)
xii.	Monitoring and evaluation	• Satisfaction surveys after each ECHO session provided to SAPMEA for quality improvement

SUPPORTING QUOTES FROM THE SA CHRONIC PAIN ECHO NETWORK
"Two SAPMEA representatives (including myself) have completed the QCH ECHO Immersion Training. Other SAPMEA staff members who have since been involved in ECHO programs at SAPMEA have been training and mentored by me on the ECHO model and how to implement and deliver them. We meet regularly with QCH and the other Australian ECHO Hubs where we share and discuss challenges and learnings." [SAPMEA General Manager]
"Overall, the program was feasible for SAPMEA to implement as we have dedicated staff trained and with experience in the planning, implementation and delivery of ECHO programs. While we were running the Chronic Pain ECHO Program, we had 2 other ECHO Programs running concurrently so were able to streamline our processes and use of staff time for better efficiency. Having delivered other ECHO programs in the past helped us as we had established existing processes and systems to facilitate the planning and

SUPPORTING QUOTES FROM THE SA CHRONIC PAIN ECHO NETWORK
delivery of the ECHO program/sessions and could use learnings and strategies from past sessions." [SAPMEA General Manager]
"I thought it worked well that the role of the partnering organisations in the co-design was clear at the onset and we had regular planning meetings where everyone was really engaged. We were able to draw upon a wider pool of knowledge and experience in chronic pain education, ECHO programs and evaluation, for the development and implementation of the Chronic Pain ECHO Program. This helped create a more 'fit for purpose' program and mitigated the risk of mistakes/low quality product by having broad consultation and feedback. We were able to leverage the networks and skills of the partner organisations e.g. For promotion/communication or for the evaluation. Having the partner organisations also brings greater credibility to the program." [SAPMEA General Manager]
"The panel and facilitator were fantastic and really worked well together. I think it was a huge advantage that they knew (or knew of) each other prior to being involved in the program. The panel members were all really responsive and engaged with SAPMEA to deliver the program." [SAPMEA General Manager]
"Having a good team [Hub panel] - physio / psychologist / GP /pain doctor - sharing the holistic approach to chronic non-cancer pain." [Hub panel member survey]
"Sharing the sessions with another person was good in preventing overload (multiple other education demands out of hours) but perhaps took away continuity." [Hub panel member survey]
"Excellent speakers and MC, great content, and ability to interact. Thank you." [hcp, satisfaction survey]
"Now that we've run this once and have a series of presentations on the topics, it would be good to refine them into a more consistent set." [Hub panel member survey]
"This is such a fantastic initiative not sure how I missed out on previous ones. Am hooked. I don't even need the CPD points but that is an added bonus I guess for people to whom it matters." [case presenter survey]
"Overall, the program was delivered as planned. The only slight change was in the final session, we did not have a case presentation and instead had an open Q&A of outstanding questions submitted by the participants." [SAPMEA General Manager]
"The panel open question in the final session of the Chronic Pain Echo seemed to work well. Questions were thought about and submitted the week before and interest from the audience was generated by the questions asked. It seemed to flow better than some of the case studies. The facilitator did an excellent job of involving all members of the panel and encouraged the audience to introduce themselves and ask questions." [Hub panel member survey]

Table 5: Barriers to implementation of the SA Chronic Pain ECHO Network

Barrier		Description
i.	Lack of formal training in the ECHO model	• Hub panel members did not receive training in the ECHO model and expressed interest in training (developing didactics, facilitation, mentorship/feedback to participants and working as a team) • GP facilitator observed another SAPMEA ECHO program but did not receive training in the ECHO model
ii.	Lack of training and support to deliver good didactics	• Time required to develop evidence-based, engaging, and succinct didactics • Challenge presenting didactics within the short timeframe • Some repetition of content across the ECHO sessions • IT issues for presenters
iii.	Inadequate information provided to Hub panel members at	• Inadequate information provided to Hub panel members during recruitment to ensure realistic expectations of the time required for the ECHO program (i.e., initial planning meeting, developing didactics, peer-reviewing didactics, ensuring co-presenters presentations 'blend' well,

Barrier		Description
	recruitment about time required	reviewing case studies, participating on the Hub panel, participating in the evaluation) • Time constraints of Hub panel members
iv.	Complexity of case studies	• Complexity of some case studies • Challenge presenting case studies within the short timeframe - case presenters going over allocated time despite briefing from SAPMEA re: time • Written feedback to two case presenters - for sessions which ran over time and the case was not discussed in full
v.	Low engagement of some health professional disciplines	• Low engagement of allied health practitioners as participants (physiotherapists (n=5, 11%) podiatrists (n=1, 2%), and psychologist - general) (n=1, 2%) • Low engagement of allied health practitioners as case presenters (case presenters included 1 social worker, 7 GPs, 1 paramedic) • Nurse practitioners did not present any cases • Greater discussion of pain management relevant to nurse practitioners requested
vi.	Completion of case study template	• Challenge for health care professionals to complete the case study templates in a timely manner
vii.	Alignment of case study with didactic	• Alignment of case study with didactic topic not always possible
viii.	Length of the ECHO series	• Some participants thought the ECHO series was too long, making it not feasible to attend another ECHO program • Decrease in participation over the ECHO series (33 participants attended ECHO session 1; 22-29 participants attended ECHO session 2-8; and 15-17 participants attended ECHO session 9-10) • Average of 5.3 sessions attended by participants
ix.	Lack of Hub panel member expertise in the needs of refugee and migrant patients	• Case that involved patients from refugee and migrant groups were perceived as being complex and not within the skillset of the Hub panel members
x.	Anonymity of online participants with cameras off	• Participants largely had their cameras off which was perceived by some participants as reducing interactivity and sense of a Community of Practice
xi.	Monitoring and evaluation burden	• Low-medium response rate for evaluation surveys: the average response rate for the satisfaction surveys over series was 46% (range 34%-60%); and 11 health care professionals completed the outcome survey (response rate 25%)

Supporting Quotes from the SA Chronic Pain ECHO Network

"The main challenges were time management during the ECHO session, mainly keeping the didactic to time. when the didactic ran over, it put pressure on the rest of the session and reduced the time available to discuss the case. We also had instances when the case presenter would go over their 3-5-minute allocation to present their case. This was despite briefing by SAPMEA staff prior to the session that the case will be sent to the panel and all participants beforehand to have read so they only needed to provide a brief summary on the night of max 5 minutes." [SAPMEA General Manager]

SUPPORTING QUOTES FROM THE SA CHRONIC PAIN ECHO NETWORK
"The time demands of slide / talk preparation were challenging on top of a normal workload. I was not aware of this requirement at the commencement and found it difficult to do the level of research and preparation required." [Hub panel member survey]
[The type of training desired included] *"Developing the slides/talks and developing a good didactic"; "training in facilitation of participant engagement, and how to provide the tough feedback to participants if they are right off the track"*; and *"working as a team".* [Hub panel members surveys]
"If the didactic aspect remained, it would be useful to have these pre-prepared, perhaps by those in the research world that have the latest updates at hand, and then the panel members could present those." [Hub panel member survey]
"The presentations did not necessarily blend well together - there seemed to be a fair bit of repetition across the weeks. While efforts were made to link the cases to the topic of the presentation, this was not always achieved." [Hub panel member survey]
"I felt that the extremely complicated nature of some of the case studies distracted from the ability to apply the learnings in some cases. Also, given the time restraints and the fact that participants had an opportunity to pre-read the case study, I wondered if it was entirely necessary for the case study presenter to reiterate all details of the case study? Perhaps much time could be saved by simply asking if anyone required any clarification or had any questions." [hcp, outcome survey]
"Unfortunately, insufficient time for discussion. Feedback provided in written form. Very complex case difficult to get across the issues in the time available." [case presenter survey]
"I felt that the case study was not really discussed in a helpful way that gave the presenter any strategies to help with her questions around accessing pain education programs that would be suitable for her unique client group (STTARS). The case study was unique in the fact that is pertained to a general group and not an individual." [hcp, satisfaction survey]
"The case studies had a complex flavour to them with different cultures, abusive home lives requiring skills other than just the management of chronic pain – indeed it would be great to involve the champions from some of the larger and more evident cultural groups as panel members or in the audience. Or as a spin off to recognise that this is an area of unmet need in the chronic pain landscape and direct training towards that area?" [Hub panel member survey]
"We had over 10 HCPs indicate 'yes' that they had a case they wanted to present for discussion. However, the main challenge was the continual follow-up to get them to complete the template with the case information and send it through to us." [SAPMEA General Manager]
"Since the presenter before had gone overtime, I had to shorten my presentation a lot, so felt I couldn't explain many aspects in the presentation." [case presenter survey]
"We tried our best to align the case to the didactic, but this was not always possible. This was due to the timing of when we received cases as well as the nature of the pain case (e.g., more than one participant had a LBP case but there was only one didactic topic on LBP). Also, some of the didactic topics were difficult to have a case only focused on the topic e.g., explaining pain to patients. For most of the sessions the case aligned with the didactic." [SAPMEA General Manager]
"The only incentive for case presentations was to receive advice and feedback on current strategies and gain perspectives from a multi-disciplinary professional support network to help the presenter to improve patient care. I am aware that there are other Australian ECHO Hubs who have been successful in having case presentations in their ECHO programs approved for the multidisciplinary case conference Medicare items. At SAPMEA, we had enquired about this in 2021 when setting up our ECHO hub but were declined." [SAPMEA General Manager]
"The format for individual sessions was great but the number of sessions overall I felt was a lot. I wanted to attend another ECHO but could not afford to have another evening taken away from family time to attend." [hcp, satisfaction survey]
"Possibly make the program a little shorter- it was quite long meaning quite a commitment when attending all sessions." [Hub panel member survey]

SUPPORTING QUOTES FROM THE SA CHRONIC PAIN ECHO NETWORK
“I find it perplexing that so few of the attendees use video - is that because they don’t have it - or that they are choosing not to? It would make it much more collegiate if they could use it.” [hcp, satisfaction survey]
“Perhaps the IT sometimes could be a challenge.” [Hub panel member survey]
“The length of the [evaluation] survey may have also contributed to the lower than anticipated response rates.” [SAPMEA General Manager]
“For future projects, I think it would be worth scheduling a group meeting half-way through the program for feedback and updates, so that the partners continue to feel engaged in the program during the delivery phase.” [SAPMEA General Manager]

Evaluation Question 2: What was the impact of the SA Chronic Pain ECHO Network?

A. What was the impact of the SA Chronic Pain ECHO Network on health care professional participants?

Response rates and profile of respondents for evaluation surveys

Satisfaction survey (after each ECHO session)

Response rate

- The average response rate for the satisfaction surveys over the series was 46% (range 34%-60%) as outlined in *Table 6*. Average 11 survey respondents per ECHO session.

Table 6: Response rate for satisfaction surveys from the SA Chronic Pain ECHO network

ECHO session	**Number of participants**	**Number of satisfaction survey respondents**	**Response rate**
ECHO session 1: Chronic pain management fundamentals – the biopsychosocial model of pain	33	13	39%
ECHO session 2: Explaining pain to patients – language, messaging and helping reduce pain catastrophising	29	10	34%
ECHO session 3: Psychological strategies and self-management approaches to pain management	27	12	44%
ECHO session 4: Physical therapies and activity pacing	23	10	43%
ECHO session 5: Types of chronic pain with a focus on neuropathic pain & CRPS	23	12	52%
ECHO session 6: Low back pain	23	13	57%
ECHO session 7: Safe and effective use of medicines for chronic pain	22	13	59%
ECHO session 8: Strategies to support opioid tapering in people with chronic pain	22	9	41%
ECHO session 9: Secondary prevention of chronic pain in the pre/post-surgery and post-injury phase	15	9	60%
ECHO session 10: Sleep management	17	5	29%
Average response rate across the series (average = 11 survey respondents per ECHO session)			46%

Profile of participants who completed the satisfaction survey

Professional disciplines

A wide range of professional disciplines were represented in the satisfaction survey. However, a greater proportion of GPs completed the satisfaction survey (72%) compared to participation overall in the ECHO program (48%).

Average percentage of professional disciplines of respondents across the series: 72% GP specialist; 13% nurse or nurse practitioner; 8% pharmacist; 11% physiotherapist; 8% psychologist; 12% paramedic; 9% podiatrist; 8% educational role.

Primary work location

Average percentage of professional disciplines of respondents across the series: 77% Metropolitan SA; 25% Regional SA; and 11% Remote SA.

Case presenters survey

Response rate

Case presenters included seven GPs, one social worker and one paramedic (N=9). Response rate for case presenters survey: 7/9 = 78%.

Profile of case presenters who completed the survey

Profile of case presenters who completed the survey:

- The vast majority of case presenters were GPs (86%; n=6); and one social worker
- The vast majority of case presenters were from metropolitan SA (86%; n=6); with one case presenter from regional SA
- The majority of case presenters were from a team of practitioners from the same clinical discipline (71%, n=5); with two case presenters from a multidisciplinary team of practitioners
- Case presenters represented a range of years in practice including two case presenters (29%) with 2-5 years in practice; two case presenters (29%) with 6-10 years in practice; and three case presenters (43%) with greater than 10 years in practice.

Outcome survey (after the series)

Response rate

Eleven health care professionals completed the outcome survey: response rate [(11/44) = 25%].

Profile of participants who completed the outcome survey

Professional disciplines: 55% GP specialist; 27% nurse or nurse practitioner; 9% physiotherapist; 9% psychologist.

Primary work location: 82% Metropolitan SA; 18% Regional SA (no remote SA).

i. Satisfaction and relevance

Satisfaction with the ECHO format

Overall, there was a high level of satisfaction with the ECHO format of the SA Chronic Pain ECHO Network - didactic presentation followed by a case study (ECHO session 1-9) or a Q and A (ECHO session 10) and feedback by the multidisciplinary expert hub panel.

The vast majority of survey respondents (of the satisfaction survey) across the series liked the ECHO session format i.e., a didactic presentation followed by a case discussion (ECHO session 1-9) and feedback by a multidisciplinary expert hub panel (average across the series= 95%). *See Figure 12.*

> *"I think the sessions have been run extremely well. The format is great and the "sticking" to time is just fantastic. The ability to interact with specialists is fantastic."* [hcp, satisfaction survey]
>
> *"ECHO sessions absolutely fantastic. Such a great way to learn. Thank you."* [hcp, satisfaction survey]
>
> *"Excellent speakers and MC, great content and ability to interact. Thank you."* [hcp, satisfaction survey]
>
> *"The current format is excellent."* [hcp, satisfaction survey]
>
> *"Happy with how information is presented."* [hcp, satisfaction survey]
>
> *"It is brilliant."* [hcp, satisfaction survey]
>
> *"The didactic presentation was good, and he is an excellent / knowledgeable presenter."* [hcp, satisfaction survey]
>
> *"I am thoroughly enjoying the chronic pain ECHO and very grateful for it being made available. Thank you."* [hcp, satisfaction survey]

All survey respondents liked the format of ECHO session 10 i.e., a didactic presentation followed by a Q and A (ECHO session 10). *See Figure 12.*

Challenges related to case presentations

Some case presenters thought that there was inadequate time to fully explain their case study (See *Perceptions of the mentorship environment* section on Page 60).

Participants (non-case presenters) reported on the complexities and length of some of the case studies which impacted on learning.

> *"I felt that the extremely complicated nature of some of the case studies distracted from the ability to apply the learnings in some cases. Also, given the time restraints and the fact that participants had an opportunity to pre-read the case study, I wondered if it was entirely necessary for the case study presenter to reiterate all details of the case study? Perhaps much time could be saved by simply asking if anyone required any clarification or had any questions."* [hcp, outcome survey]
>
> *"I thought the case study was too long and not well summarised - made any learnings difficult."* [hcp, satisfaction survey]

> *"In this case the patient was complicated enough that case discussion may have been very difficult [due to the complexities]."* [hcp, satisfaction survey]

One participant suggested a shorter case study, with pre-reading and a longer didactic would be preferable:

> *"I am not sure if it would be reasonable/feasible to change the format slightly, to have a long didactic presentation and cut down on the case presentation slightly (with the expectation that participants had pre-read the case), with a longer portion of the case presentation focused on discussion."* [hcp, satisfaction survey]

One participant commented on the unique case study (refugee group) and that the strategies given were not useful:

> *"I felt that the case study was not really discussed in a helpful way that gave the presenter any strategies to help with her questions around accessing pain education programs that would be suitable for her unique client group (STTARS). The case study was unique in the fact that is pertained to a general group and not an individual."* [hcp, satisfaction survey]

Recording and ECHO session slides

One participant commented on the usefulness of the slides after each ECHO session to reinforce key messages of the ECHOs:

> *"Always keen to be able to access the slideshow presentation to reinforce concepts at a later time/revision."* [hcp, satisfaction survey]

One participant commented on the usefulness of the recording if the ECHO session was missed:

> *"Great that there is access to a recording with shift work."* [hcp, satisfaction survey]

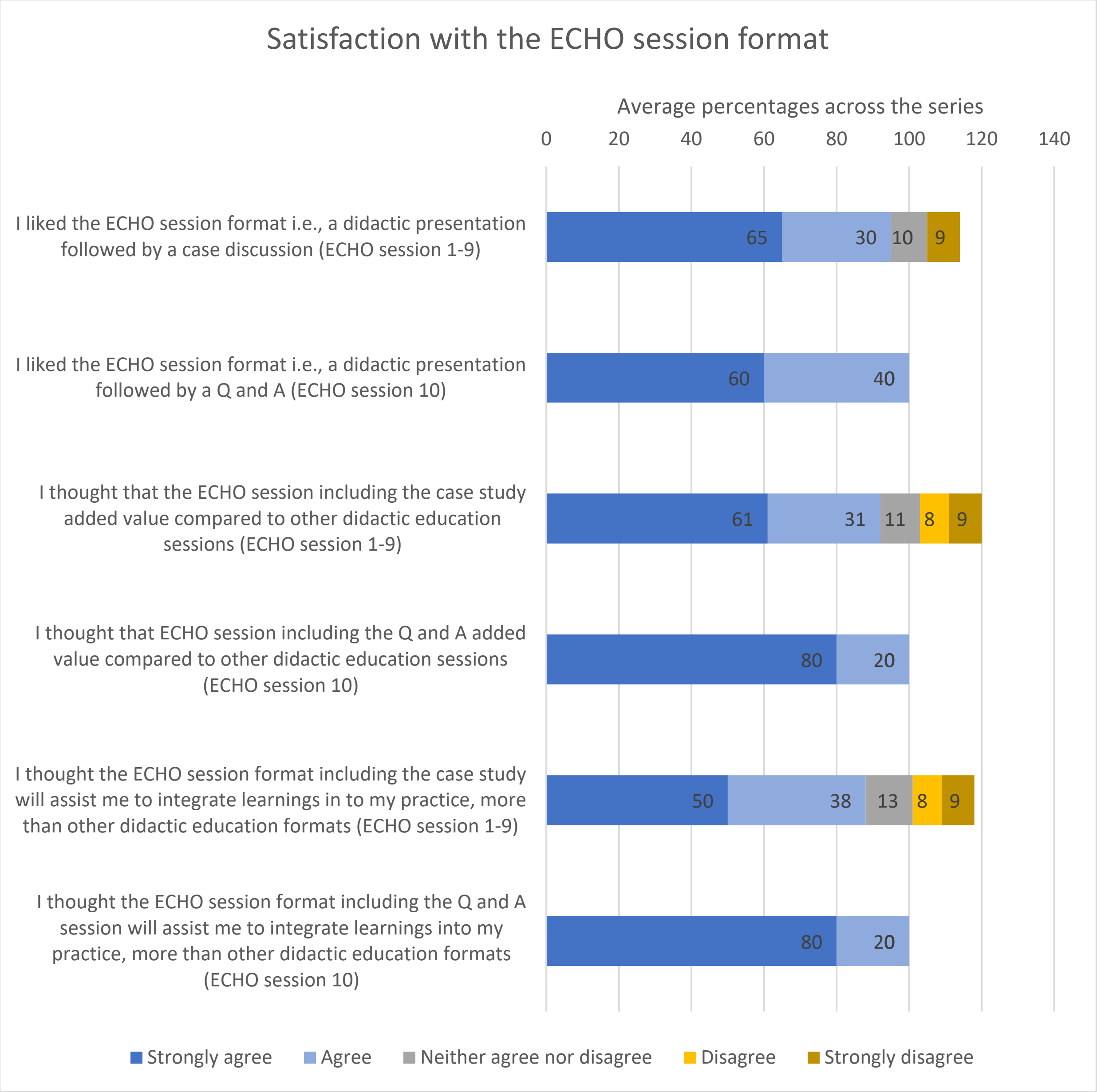

Figure 12: Satisfaction with the ECHO session format of the SA Chronic Pain ECHO network

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session.

Satisfaction with the online learning format

Overall, there was a high level of satisfaction with the online learning format of the SA Chronic Pain ECHO Network.

The vast majority of survey respondents (of the satisfaction survey) across the series thought that the duration of the ECHO sessions was feasible for them to attend (i.e., not too long) (average across the series 94%). *See Figure 13.*

A couple of participants reported that the ECHO series was too long:

> *"I found the course very useful but felt it "dragged" on for many weeks. I was not able to commit this length of time to do another ECHO program."* [hcp, outcome survey]
>
> *"The format for individual sessions was great but the number of sessions overall I felt was a lot. I wanted to attend another ECHO but could not afford to have another evening taken away from family time to attend."* [hcp, satisfaction survey]

The vast majority of survey respondents were able to use the Zoom technology without any problem (average across the series 90%). *See Figure 13.* Only one participant mentioned *"connectivity issues"* as a problem.

The vast majority of survey respondents thought the online learning format is more accessible to them than a face-to-face format (average across the series 93%). *See Figure 13.*

One participant reported that participants not using their camera impacted on the intimacy of the group:

> *"I find it perplexing that so few of the attendees use video - is that because they don't have it - or that they are choosing not to? It would make it much more collegiate if they could use it."* [hcp, satisfaction survey]

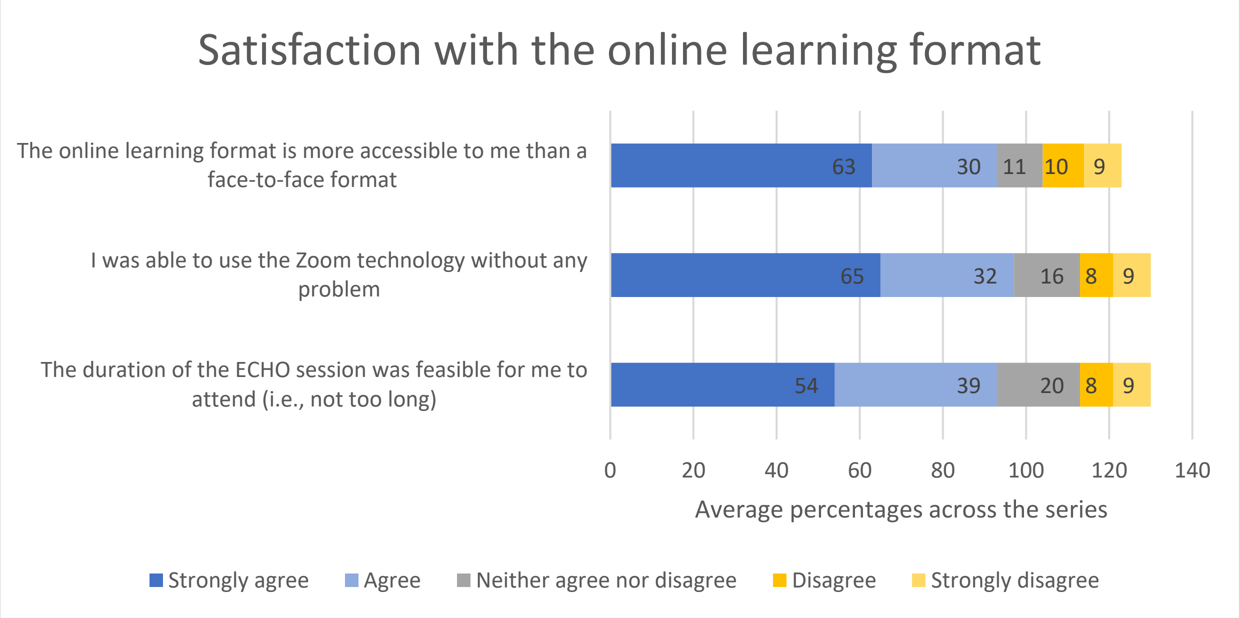

Figure 13: Satisfaction with the online learning format of the SA Chronic Pain ECHO network

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session.

Relevance to practice

Overall, participants reported that the SA Chronic Pain ECHO Network was relevant to practice.

Almost all survey respondents (of the satisfaction survey) across the series thought that the ECHO sessions were relevant to their practice (average across the series 99%). *See Figure 14:*

> *"Thank you… It was very informative and helpful. Definitely chronic pain sessions were one of the best among SAPMEA learning opportunities."* [hcp, outcome survey]
>
> *"Overall, very useful seminar series I will refer to in future. Thanks to all presenters and case studies."* [hcp, outcome survey]
>
> *"Love the learnings. thank you."* [hcp, satisfaction survey]

One participant reported that there was not enough information for nurses:

> *"I'd love to have a nursing role focus. On support but also on how to educate in pain management. Workflow and facilitating the consults are more individual to the clinic but I'd like to have more education and direction."* [hcp, outcome survey]

Almost all survey respondents thought that they had learnt or refreshed something that will be useful when caring for their patients with chronic pain (average across the series 97%). *See Figure 14.*

> *"Really enjoying these sessions! Learning a lot!"* [hcp, satisfaction survey]

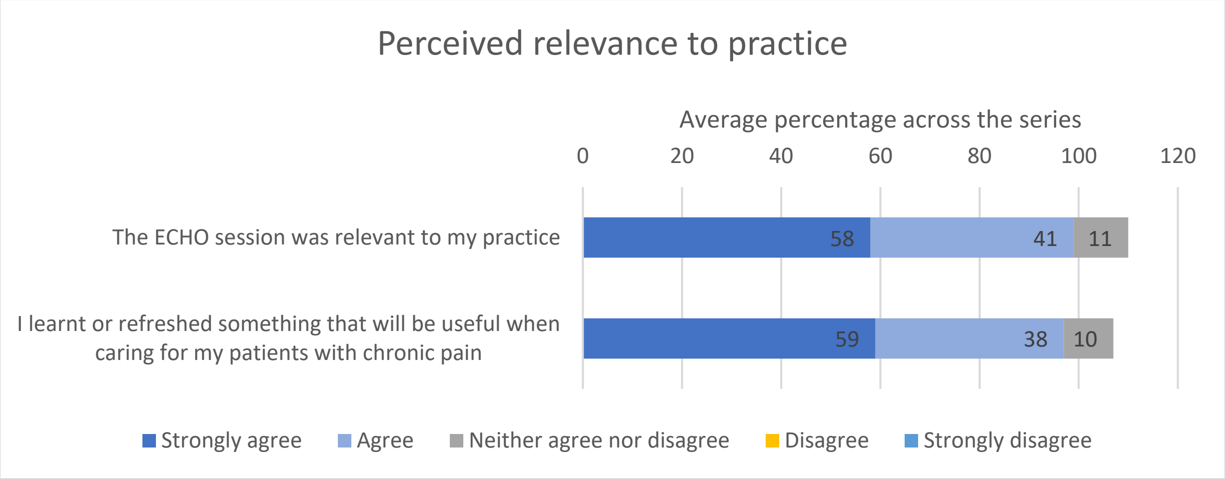

Figure 14: Perceived relevance to practice of the SA Chronic Pain ECHO network

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session.

Available resources

All survey respondents (N=10) (of the outcome survey after the series) thought that the resources discussed in the ECHO sessions or listed on the SA Chronic Pain ECHO Network website were useful. *See Figure 19.*

See Figure 25: Key Learnings from the SA Chronic Pain ECHO Network and Table 7: Key Learnings from the SA Chronic Pain ECHO Network, intention to apply the key learnings, and applying the key learnings

ii. Whether the ECHO program was considered a ‘value-add’ compared to other education programs

Overall, the Project ECHO model was perceived as a ‘value-add’ to other models of education and training e.g., webinars.

The vast majority of survey respondents (of the satisfaction survey) across the series thought that the ECHO session including the case study added value compared to other didactic education formats (ECHO session 1-9: average across the series 91%). *See Figure 12*. See also *Perceptions of the mentorship environment* section below.

> *“I think the sessions have been run extremely well. The format is great and the "sticking" to time is just fantastic. The ability to interact with specialists is fantastic.”* [hcp, satisfaction survey]
>
> *“ECHO sessions absolutely fantastic. Such a great way to learn. Thank you.”* [hcp, satisfaction survey]

All survey respondents thought that ECHO session 10 which included the Q and A added value compared to other didactic education formats. *See Figure 12*.

The vast majority of survey respondents across the series thought the ECHO session format including the case study will assist them to integrate learnings into their practice, more than other didactic education formats (ECHO session 1-9) (average across the series 87%). *See Figure 12*.

All survey respondents thought ECHO session 10 format including the Q and A session will assist them to integrate learnings into their practice, more than other didactic education formats. *See Figure 12*.

See also *Perceptions of the mentorship environment* section below, for example:

> *“I don’t know of another forum in which I could have received this support. I have a management pathway with various options depending on the patient’s response and it is specific to my patient.”* [case presenter survey]

iii. Perceptions of the mentorship environment

Overall, participants and case presenters thought the ECHO hub panel created a positive, non-judgemental, and encouraging environment for health care professionals to present a case and contribute to the discussion.

The vast majority of the survey respondents (of the satisfaction survey) across the series thought the ECHO hub panel created a positive, non-judgemental, and encouraging environment for health care professionals to present a case and contribute to the discussion (average across the series 96%). *See Figure 15*.

The vast majority of survey respondents thought there was enough opportunity to contribute to the discussion (average across the series 92%). *See Figure 15*.

Discussion between participants also occurred in the ‘chat’. One participant would have liked to know how to save the ‘chat’:

> *"It would be good to be able to easily import notices in the chat section into my computer."* [hcp, satisfaction survey]

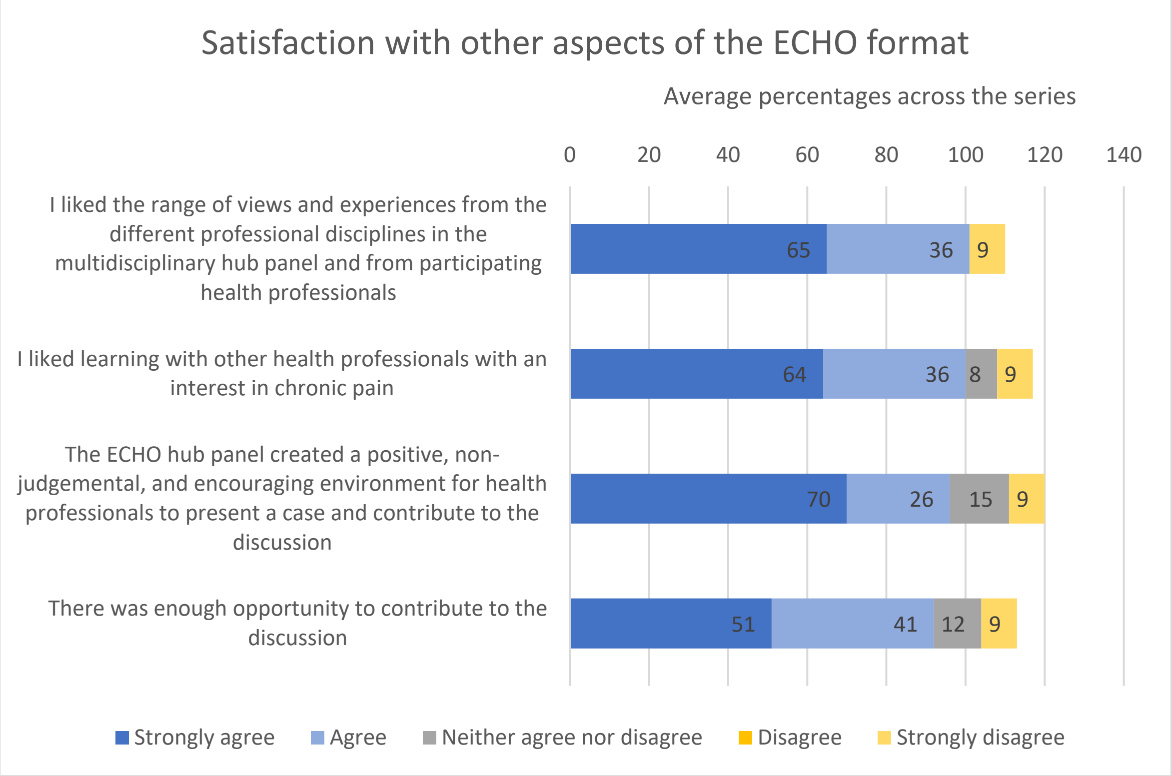

Figure 15: Satisfaction with other aspects of the ECHO format of the SA Chronic Pain ECHO Network

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session.

Satisfaction for case presenters

ECHO model of e-mentoring about a case

Case presenters highly valued the ECHO format of presenting a case and receiving feedback from a multidisciplinary expert panel:

> *"I don't know of another forum in which I could have received this support. I have a management pathway with various options depending on the patient's response and it is specific to my patient."* [case presenter survey]
>
> *"This is such a fantastic initiative not sure how I missed out on previous ones. Am hooked. I don't even need the CPD points but that is an added bonus I guess for people to whom it matters."* [case presenter survey]
>
> *"It was very valuable to review a case which dates back to 2004 - present to a very supportive and knowledgeable group of panel members and colleagues - come away with a very clear and detailed management plan."* [case presenter survey]

The majority of case presenter survey respondents valued receiving input from the expert panel members about their patient (N= 5; 83%), *see Figure 15*, in particular case presenters valued the multidisciplinary input:

> *"It was great, I was so glad that I got the opportunity to present to a multi-disciplinary team of specialists."* [case presenter survey]

> *"I liked receiving suggestions from the different experts present. This will give me ideas about how I can help my patient further."* [case presenter survey]

> *"Dialogue between treating physicians is imperative in caring for complex needs."* [case presenter survey]

One case presenter did not think the panel feedback would be relevant to the patient given the person's situation and the barriers to implementing the advice, including co-morbidities which result in multiple health appointments, travel to inner metropolitan allied health practitioners, and cost:

> *"My patient already has numerous appointments to attend in the city (long return trip from his home) for himself (he has several other chronic conditions) and for his parents (he is the main support for them). I am not certain he will be keen on attending the Uni Clinics for reduced fee psychology and physio (time consuming and cost of petrol)."* [case presenter survey]

Mentoring environment

The majority of *case presenter* survey respondents thought the ECHO Hub panel created a positive environment to present a case (N= 5; 83%). *See Figure 16.*

> *"I felt very listened to and respected. It was very empowering."* [case presenter survey]

> *"Very supportive from the team."* [case presenter survey]

> *"It was incredibly validating. Huge amount of information. Very grateful to the support I have been given."* [case presenter survey]

Approximately two thirds of case presenter survey respondents valued the discussion from the participating health professionals about their patient (N= 4; 67%). *See Figure 16.*

Impact of perceived quality of care

The majority of case presenter survey respondents thought the input they received from the expert panel and the participating health professionals about their patient will improve the quality of care to the patient (N= 5; 83%). *See Figure 16.*

Level of support to present a case

All case presenter survey respondents were satisfied with the level of support they received to develop the case for presentation:

> *"I liked the proforma headings. It made it easier to organise my case on paper."* [case presenter survey]

> *"The case was easy enough to write up so not much help needed. I was prepared for most questions by the panel."* [case presenter survey]

> *"No - I had all the support I needed."* [case presenter survey]

One case presenter highlighted the additional burden of developing a case for presentation:

> *"I put myself under pressure in taking on the presentation. I was feeling fairly burnt out - hence why I needed to seek support."* [case presenter survey]

Time constraints for presenting a case

One case presenter who had received written feedback due to insufficient time in a complex case did not think the feedback was suitable to the patient.

> *"Unfortunately, insufficient time for discussion. Feedback provided in written form. Very complex case difficult to get across the issues in the time available. Assumptions made didn't match."* [case presenter survey]

One case presenter highlighted the impact of having less time to present a case during the ECHO session due to the didactic presenter extending their presentation above their allocated time:

> *"Since the presenter before had gone overtime, I had to shorten my presentation a lot, so felt I couldn't explain many aspects in the presentation."* [case presenter survey]

One case presenter suggested that more time be allocated for a case presentation:

> *"I think it would be good to have at least 7-10 mins for presenter to explain the case."* [case presenter survey]

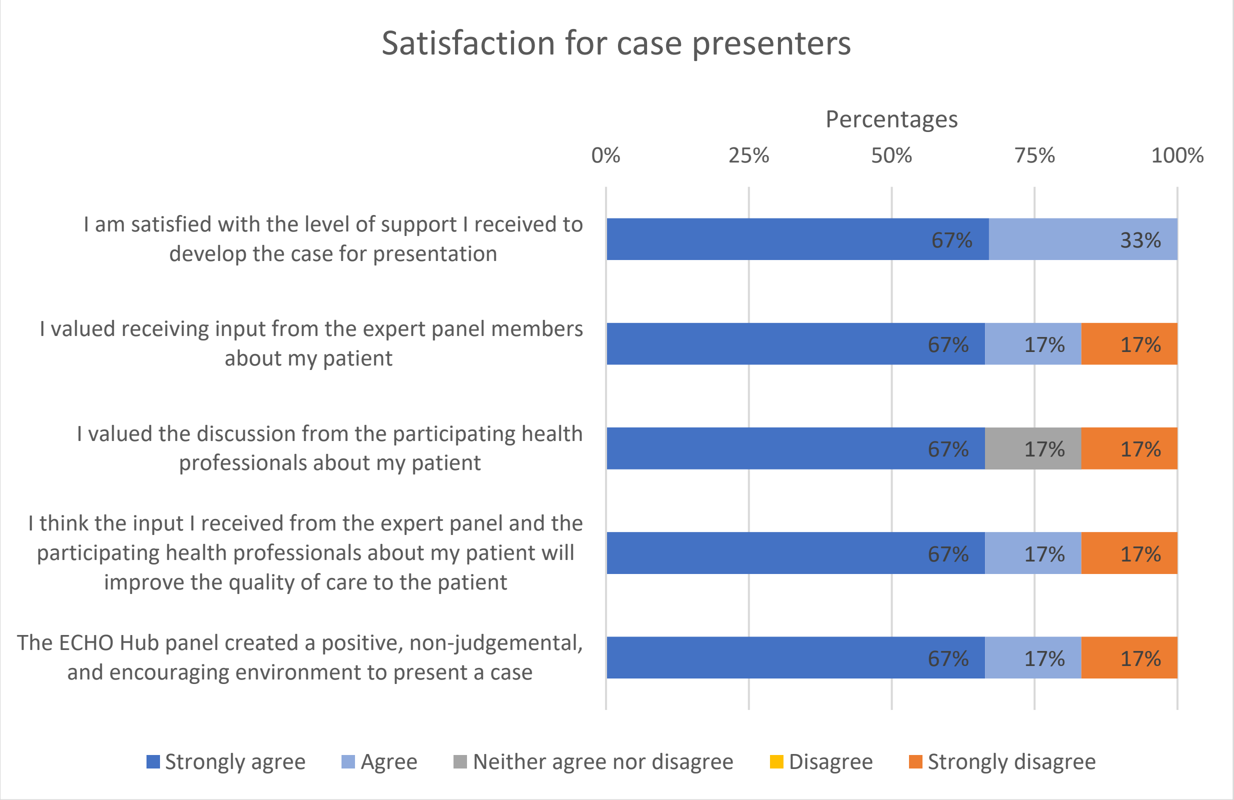

Figure 16: Satisfaction of presenting a case study at the SA Chronic Pain ECHO Network

Note, case presenters survey data (N=7)

iv. Health care professional support

Overall, participants liked learning with other health professionals with an interest in chronic pain and thought the SA Chronic Pain ECHO Network provided professional support.

The vast majority of survey respondents (of the satisfaction survey) across the series liked learning with other health professionals with an interest in chronic pain (average across the series 93%). *See Figure 15*.

The vast majority of survey respondents (of the outcome survey after the series) thought the SA Chronic Pain ECHO Network provided professional support (N=9; 90%); and made them feel like they were part of a community of practitioners who share common interests and concerns related to pain management (N=9; 90%). *See Figure 17*.

Most of the survey respondents (of the outcome survey after the series) thought the Chronic Pain ECHO Network had improved their professional networks related to pain management (N=7; 70%). *See Figure 17*.

Improved professional networks

Participants reported improved professional networks and feeling less isolated:

> *"Increased awareness of what is out there. Also, that I was not alone in managing this complex issue for patients*." [hcp, outcome survey]

> *"Ongoing reference source of practitioners and reference materials for use and referral when needed."* [hcp, outcome survey]

One participant reported that it increased their awareness of professional networks, but nursing networks were not highlighted:

> *"I am more aware of individuals who are within that [the pain management team], but I didn't see nursing/ the nurses role represented*." [hcp, outcome survey]

Navigating the health system

One participant highlighted the importance of the Chronic Pain ECHO Network in providing information about the health system and how to navigate it.

> *"I appreciate having access to these sessions with information about local processes and the way the public system operates; I attend to get insight into how to navigate through the systems which is difficult because they are complex, often change without warning, have slow websites or not available when needing to access. Dialogue between treating physicians is imperative in caring for complex needs and has been lost in the last 2 decades."* [case presenter survey]

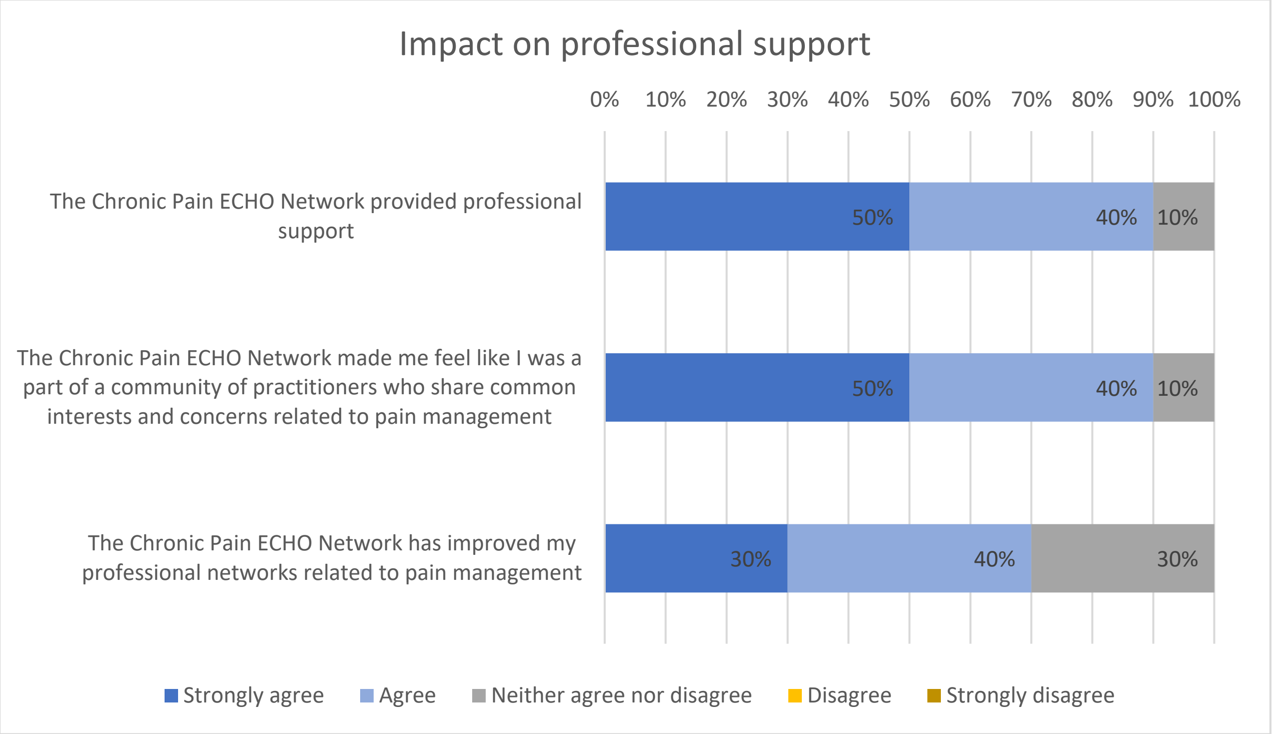

Figure 17: Impact of the SA Chronic Pain ECHO Network on professional support

Note, outcome survey data (N=10/11)

v. Attitudes towards people experiencing pain and other health professional disciplines involved in pain care

Overall, participants thought that they learnt about the importance of partnership with patients, patient-centred communication, learning about the whole patient, trusting patients' experiences, and the systemic barriers for some patients accessing care. Also, participants valued the multidisciplinary approach of the Hub panel and participants thought they had a better understanding of the way in which different practitioners can contribute and work together.

Impact of ECHO on attitudes towards patients

The vast majority of survey respondents (of the outcome survey after the series) thought that the SA Chronic Pain ECHO Network had affected their attitudes towards people living with chronic pain (N=9; 90%). *See Figure 18.*

Patient experience and patient-centred care

Participants reported greater understanding of the importance of patient-centred care and trusting the patient experience of their pain:

> *"Pain is invisible symptoms, so it is best to trust my patient when they are in severe pain and do my ultimate treatment. Patient care and satisfaction should be the first priority."* [hcp, outcome survey]
>
> *"[Understanding] perspectives of problems clients face"* [hcp, outcome survey]

> *"I will incorporate a different language strategy and be more mindful of how I ask questions."* [hcp, satisfaction survey]

Importance of understanding mental health

Participants reported a greater understanding of the importance of the whole person, including mental health and referring to a psychologist where required:

> *"Chronic pain affects the whole body and mental health therefore it is important to effectively treat it. Counselling and referral to psychologist should always be in the list of management."* [hcp, outcome survey]
>
> *"The importance of psychologists in the management of chronic pain"* [hcp, outcome survey]

Patient complexities and comorbidities

Participants reported a greater understanding of the complexities of patients and how pain leads to other health issues:

> *"Greater understanding of the complexities of presentations."* [hcp, outcome survey]
>
> *"Positive indeed as I mentioned earlier treating chronic pain is not just about pain, it is about treatment of chronic pain leading up to other problems"* [hcp, outcome survey]

Systemic barriers to accessing care

Participants reported a greater understanding of the system barriers for patients to accessing care:

> *"Greater understanding of the systemic difficulties involved in accessing care."* [hcp, outcome survey]
>
> *"University physio and psychology clinics are an option for low-income earners."* [hcp, satisfaction survey]

Impact of ECHO on attitudes towards health care professionals

Over half of survey respondents thought that the SA Chronic Pain ECHO Network had affected their attitude towards the role of other health professional disciplines in managing people living with chronic pain (N=6; 60%). *See Figure 18.*

> *"Chronic pain is complicated, and I don't know everything but can reach out to others to get ideas."* [hcp, satisfaction survey]

Multidisciplinary team

The vast majority of survey respondents (of the satisfaction survey) across the series liked the range of views and experiences from the different professional disciplines in the multidisciplinary hub panel and from participating health professionals (average across the series 97%). *See Figure 15.*

> *"Watching the various professionals coming up with different ideas for the case studies was illustrative of the many different ways of approaching pain management."* [hcp, outcome survey]

Participants reported a better understanding of the importance of multidisciplinary care and how a team could work together to manage patients with chronic pain, especially the importance of allied health practitioners:

> *"Better understanding of the way in which different practitioners can contribute and work together."* [hcp, outcome survey]
>
> *"[Importance of the] use of physiotherapist and pain psychologist." [hcp, outcome survey]*
>
> *"Multidisciplinary awareness."* [hcp, outcome survey]
>
> *"Increased awareness of having communication channels with GP/psychologist to assist in chronic pain management."* [hcp, outcome survey]

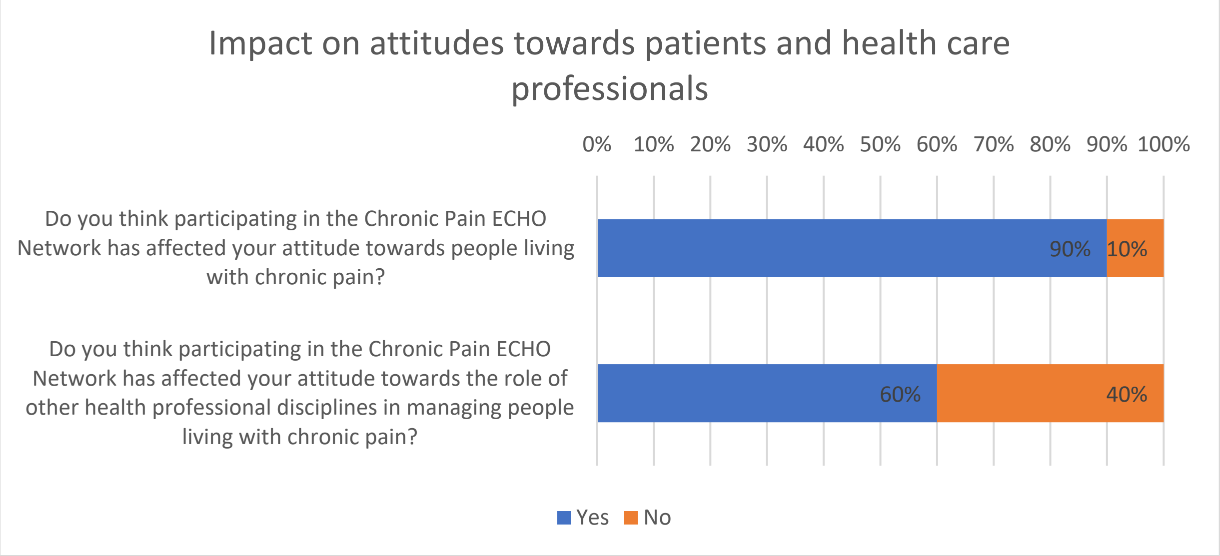

Figure 18: Impact of the SA Chronic Pain ECHO Network on attitudes towards patients and health care professionals

Note, outcome survey data (N=10/11)

vi. Perceived knowledge and confidence related to best practice pain care aligned to the biopsychosocial model

Overall, participants thought that the SA Chronic Pain ECHO Network had met their learning needs and improved their knowledge and confidence to deliver best practice pain care.

The vast majority of survey respondents (of the satisfaction survey) across the series thought that they had learnt about:

- Resources for further information or to use with patients (average across the series 89%). *See Figure 19*.
- Multidisciplinary and biopsychosocial approach to pain management (average across the series 97%). *See Figure 19*.
- Self-management and non-pharmacological strategies to use with patients with chronic pain (average across the series 90%). *See Figure 19*.

- The importance of a patient centred approach for people with chronic pain e.g., empathic listening and validation (average across the series 91%). *See Figure 19*. See also *Attitudes towards people experiencing pain and other health professional disciplines* involved in pain care section on Page 65.

Most survey respondents thought that they had learnt about chronic pain referral networks and when and who to refer patients with chronic pain to (average across the series 74%). *See Figure 19*.

The vast majority of survey respondents thought that the ECHO session(s) they attended had met their learning needs for this topic (average across the series 95%). *See Figure 19*.

> *"Thank you for providing the opportunity to learn."* [hcp, satisfaction survey]

One participant reported that it would be good to develop the communication skills of participants (although beyond the scope of the SA Chronic Pain ECO Network):

> *"It would be helpful to spend time in developing the communication skills to manage chronic pain."* [hcp, satisfaction survey]

See Figure 25: Key learnings from the SA Chronic Pain ECHO Network and Table 7: Key Learnings from the SA Chronic Pain ECHO Network, intention to apply the key learnings, and applying the key learnings.

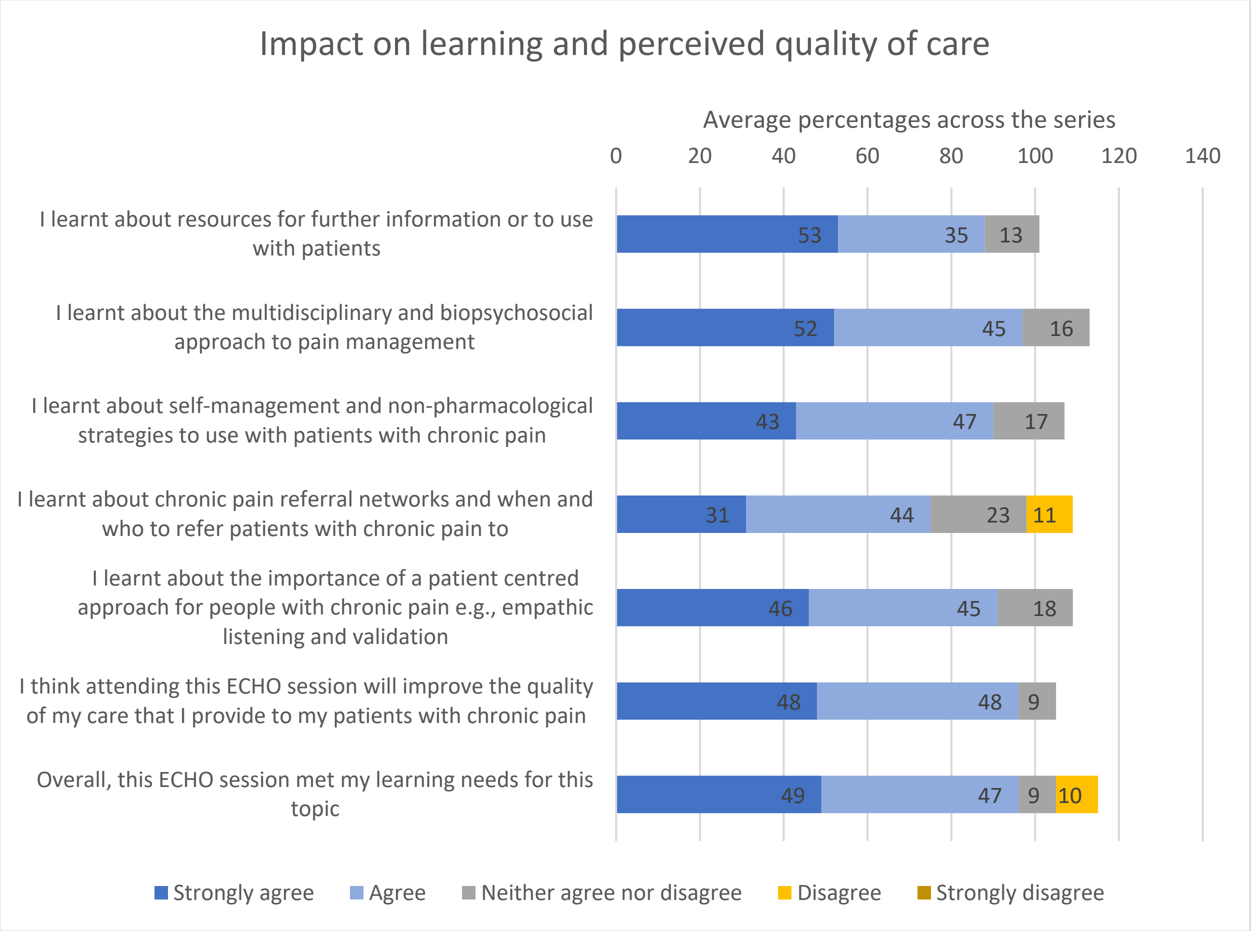

Figure 19: Impact of the SA Chronic Pain ECHO Network on learning and perceived quality of care of participants

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session.

Perceived impact on knowledge and confidence

All survey respondents (N=11) (of the outcome survey after the series) thought the SA Chronic Pain ECHO Network had improved their knowledge about the multidisciplinary and biopsychosocial approach to pain management, self-management and non-pharmacological strategies to use with patients with chronic pain, and about chronic pain referral networks and when and who to refer patients with chronic pain to. *See Figure 20*.

> *"The chronic pain ECHO has updated my knowledge and it was one of the best of the ECHO series."* [hcp, outcome survey]

However, only 27% of survey respondents (N=3) 'strongly agreed' that the SA Chronic Pain ECHO Network had improved their knowledge about chronic pain referral networks and when and who to refer patients with chronic pain to, with 9% (n=1) reporting no improvement in knowledge in this area. *See Figure 20*. This may highlight an area to strengthen in future ECHOs.

All survey respondents thought that the SA Chronic Pain ECHO Network had improved their confidence to manage patients with chronic pain, their confidence about how to help people make sense of their pain from a biopsychosocial perspective, and their confidence about using a patient centred approach with people with chronic pain (e.g., empathetic listening and validation). *See Figure 20*.

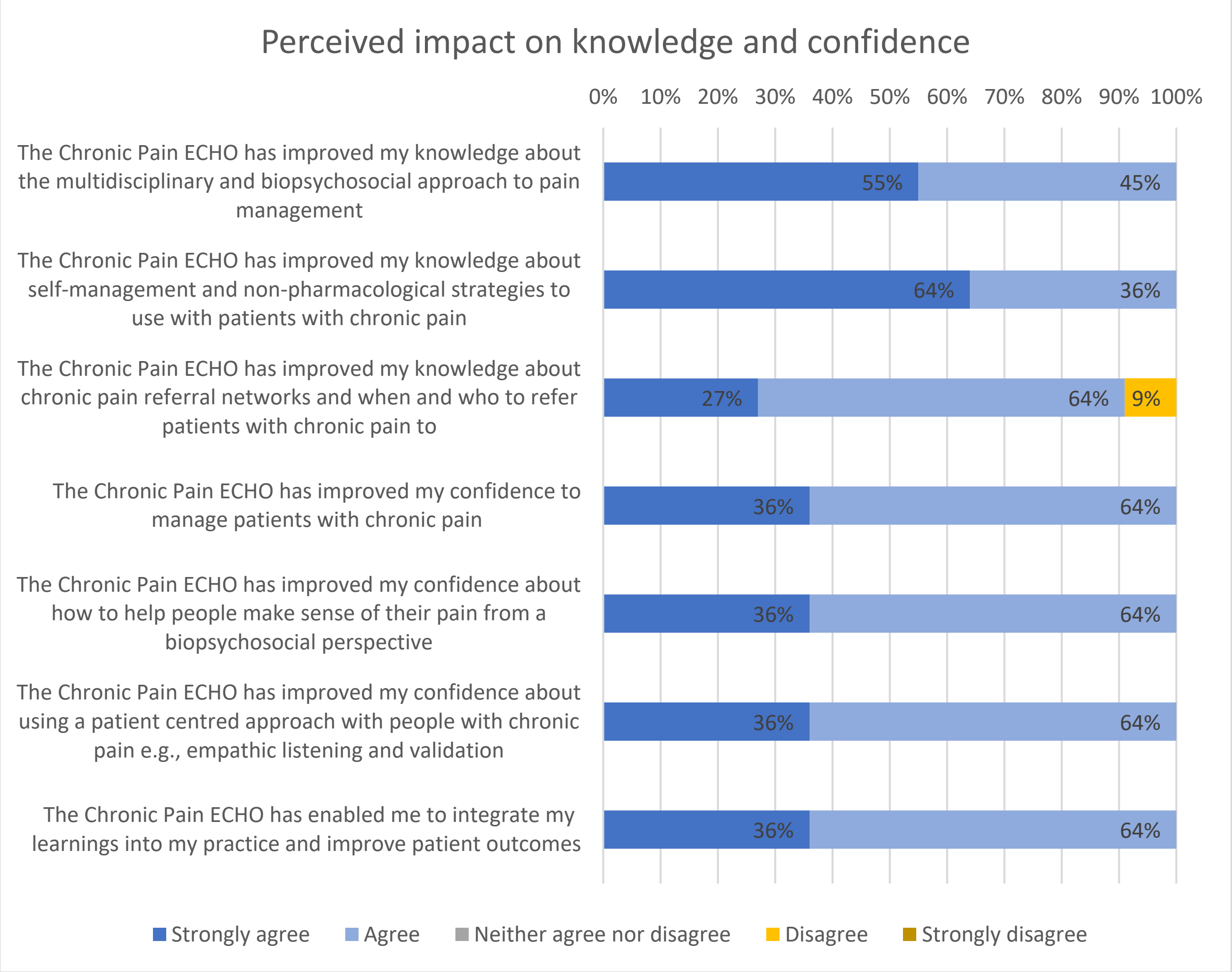

Figure 20: Perceived impact of the SA Chronic Pain ECHO Network on knowledge and confidence of participants

Note, outcome survey data (N=11)

See Figure 25: Key learnings from the SA Chronic Pain ECHO Network and Table 7: Key Learnings from the SA Chronic Pain ECHO Network, intention to apply the key learnings, and applying the key learnings.

vii. Intention to change practice, perceived practice change, and perceived quality of care

Overall, participants intended to use their learnings, and did use their learnings,[31] from the SA Chronic Pain ECHO Network in their clinical practice with patients with chronic pain.

Likelihood of applying the learnings in practice

The vast majority of survey respondents (of the satisfaction survey) thought they would use their learnings in their clinical practice with patients with chronic pain with 61% of survey participants (average percentage across the series) thought it was extremely likely they would use their learnings from this ECHO session in their clinical practice with patients with chronic pain; and 36% thought it was likely (average percentage across the series). *See Figure 21*.

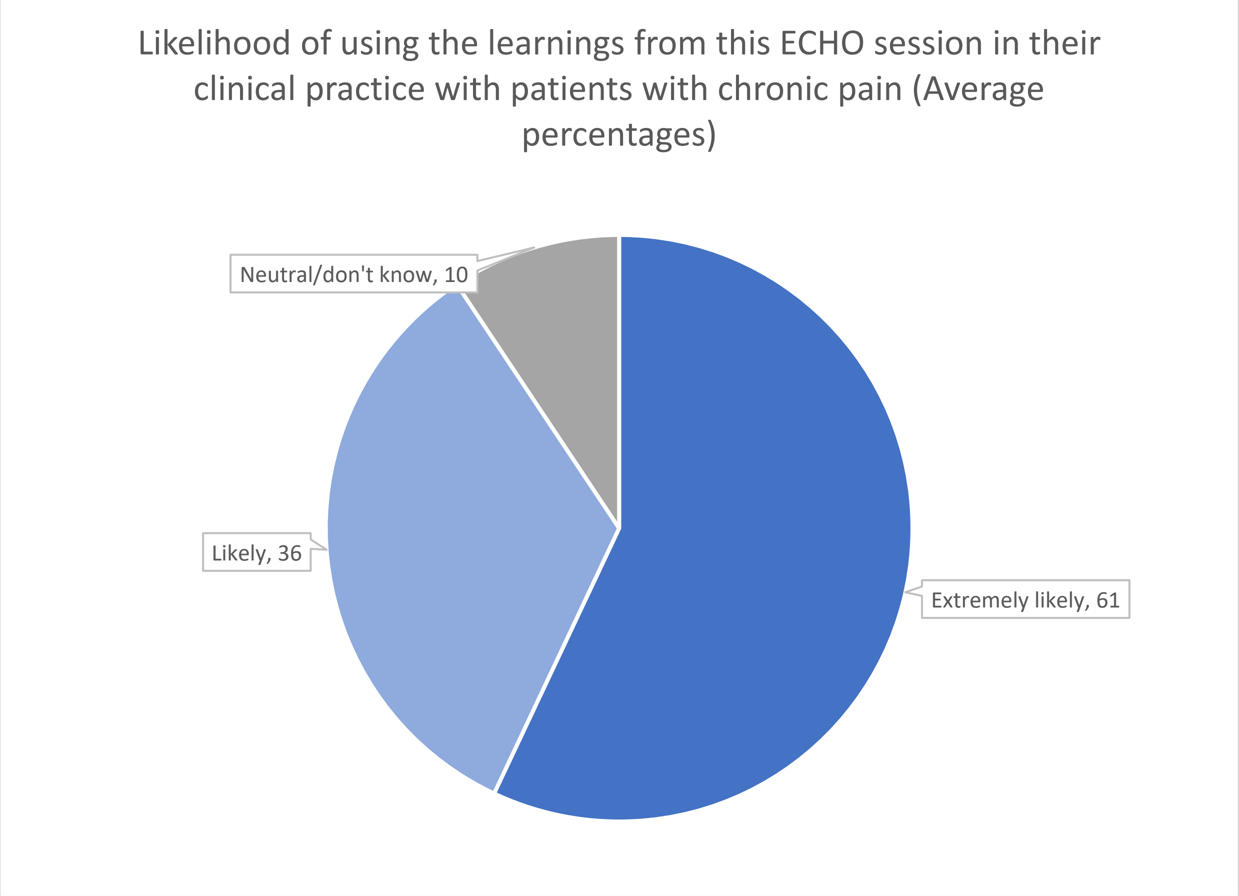

Figure 21: Likelihood of using the learnings from this ECHO session in their clinical practice with patients with chronic pain

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session.

See Figure 25: Key learnings from the SA Chronic Pain ECHO Network and Table 7: Key Learnings from the SA Chronic Pain ECHO Network, intention to apply the key learnings, and applying the key learnings.

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[31] Note, limited sample size for outcome survey (N=10)

Perceived impact on practice for case presenters

Overall, case presenters thought the feedback from multidisciplinary expert panel members of the SA Chronic Pain ECHO Network will change the management of their patient with chronic pain.

The majority of case presenter survey respondents thought the input they received about their patient from the expert panel or the participating health professionals will change their management of the patient (N= 5; 83%). *See Figure 22.*

> *"It is clear, detailed and actionable- and supported by written answers to the questions I posed."* [case presenter survey]
>
> *"I will discuss the suggestions received with my patients and the reasons why the suggestions might benefit him."* [case presenter survey]
>
> *"Improved information empowers my opinion and choices."* [case presenter survey]
>
> *"It definitely did [change the management of my patient]. I was not aware of the resources available for the patient e.g., COTA, physio services from universities because cost is the main issue for most older adults who suffer from chronic pain."* [case presenter, outcome survey]
>
> *"The information I received from the panel allowed me to encourage my patient to re-engage in psychological supports and to consider volunteering as a gardener in the community garden. He has not done these things yet, but we are discussing these."* [case presenter, outcome survey]

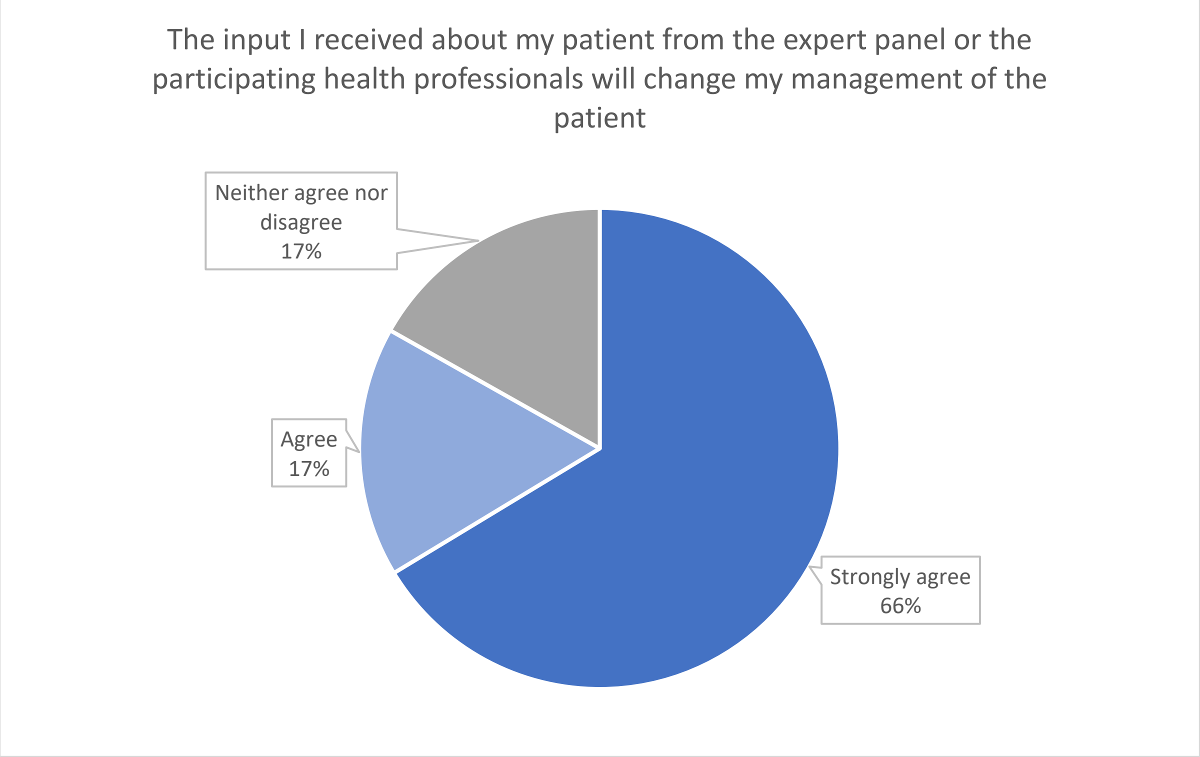

Figure 22: Impact of expert panel feedback for case presenters on intention to change practice

Note, case presenters survey data (N=7)

Perceived impact on quality of care

Overall, participants of the SA Chronic Pain ECHO Network thought that participation would, and did,[32] improve the quality of care for patients with chronic pain.

The vast majority of survey respondents (of the satisfaction survey) across the series thought that the ECHO session(s) they attended would improve the quality of care that they provide to patients with chronic pain (average across the series 96%). *See Figure 19*.

> *"Firstly, I am recognising that some patients I have seen for years are chronic pain patients. Identifying this is very helpful. I'm already practicing including some of the learnings about chronic pain management into these patients care plans."* [hcp, satisfaction survey]

All survey respondents (of the outcome survey after the series) thought the SA Chronic Pain ECHO Network had enabled them to integrate their learnings into my practice and improve patient outcomes. *See Figure 20*.

All survey respondents (of the outcome survey after the series) thought that the SA Chronic Pain ECHO Network improved the quality of care that they provide to their patients with chronic pain; increased their encouragement to patients to learn and adopt an active self-management program and non-pharmacological strategies for pain management; and improved their language and communication skills in explaining concepts to patients in a variety of ways to assist them in tailoring effective communication approaches. *See Figure 23*.

The majority of case presenter survey respondents thought the input they received from the expert panel and the participating health professionals about their patient will improve the quality of care to the patient (N= 5; 83%). *See Figure 16*.

> *"So many new ideas were floated, and I will be discussing this with my patient e.g., use of low-cost physio via COTA, using Uni clinics for EP, Physio, Psyche, redoing a mental health care plan for referral to new eyes."* [case presenter survey]

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[32] Note, limited sample size for outcome survey (N=10)

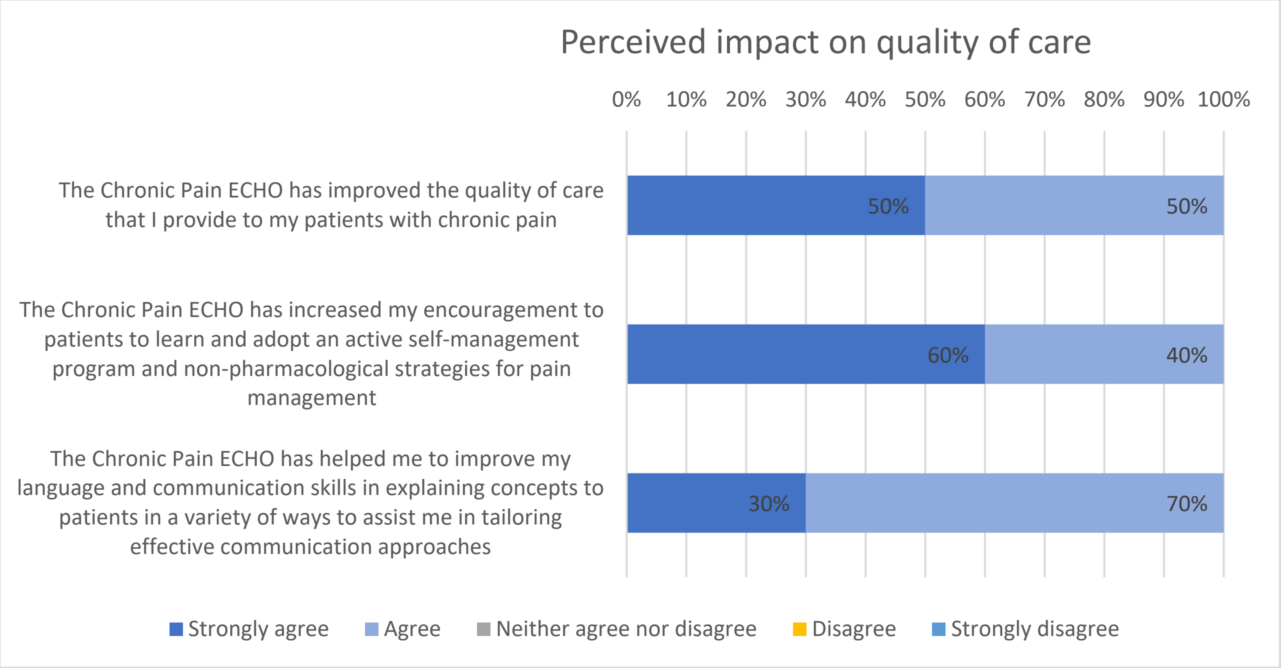

Figure 23: Perceived impact of the SA Chronic Pain ECHO Network on quality of care

Note, outcome survey data (N=10/11)

See Figure 25: Key learnings from the SA Chronic Pain ECHO Network and Table 7: Key Learnings from the SA Chronic Pain ECHO Network, intention to apply the key learnings, and applying the key learnings.

Impact on prescribing and GP referrals to allied health

Overall, participation in the SA Chronic Pain ECHO Network increased GP referrals to allied health practitioners for pain management and decreased their opioid prescribing (either amount or frequency) or their intention to reduce their opioid prescribing.[33]

The vast majority of GP survey respondents (N= 5 from 6 GPs) (of the outcome survey after the series) thought that the SA Chronic Pain ECHO Network increased their referrals to allied health practitioners for pain management; and decreased their opioid prescribing (either amount or frequency). *See Figure 24.*

All GP survey respondents (N= 6) thought that the SA Chronic Pain ECHO Network increased their intention to reduce opioid prescribing (either amount or frequency). *See Figure 24.*

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[33] Note, limited sample size for outcome survey (N=11)

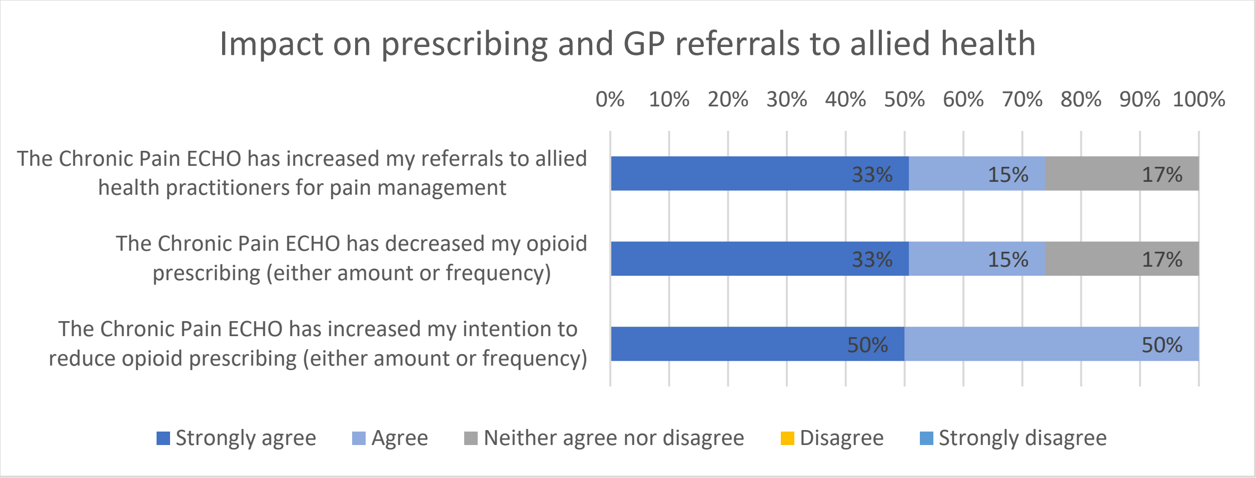

Figure 24: Impact of the SA Chronic Pain ECHO Network on prescribing and GP referrals to allied health

Note, outcome survey data from GPs only (n=6)

Key learnings from the SA Chronic Pain ECHO Network (Qualitative data)

The most common key learnings related to the importance of incorporating **psychological and social approaches** to pain care including addressing mental health issues, teaching patients' psychological self-management strategies, referring to clinical psychologists if required, and promoting social connection and community groups.

Other key learnings included **partnership with patients** and **patient-centred communication**, **appropriate language and messaging** related to chronic pain, and learning about **available resources** for use by health care providers in their consultations with patients with chronic pain and/or by patients with chronic pain.

Figure 25: Key learnings from the SA Chronic Pain ECHO Network

Partnership with patients and patient-centred communication	•Learning about the whole person •Validating the patient experience •Importance of supporting patients with chronic pain over time
Appropriate language and messaging related to chronic pain	•Importance of appropriate language and messaging related to chronic pain to reduce pain catastrophising
Applying the biopsychosocial approach to pain care	•The importance of the biopsychosocial approach to pain care and the multidisciplinary team •Specifically, the importance of incorporating the psychological approach to pain care - addressing mental health issues, teaching patients self-management strategies and referral to clinical psychologists if required •Specifically, the importance of incorporating the social approach to pain care including promoting social connection and community groups •Specifically, the importance of incorporating physical activity into pain care and referral to physiotherapists •Understanding cost and travel barriers for patients to access allied health care and improving accessibility through online or virtual options •The appropriate use of medicines for chronic pain •Strategies to support opioid tapering •Sleep management strategies
Available resources	•Available resources for use by health care providers in their consultations with patients with chronic pain and/or by patients with chronic pain
Other (minor themes)	•Better understanding of the types of chronic pain and risk factors for progression to chronic pain after surgery •Better understanding about referral pathways and the health care system •Better understanding of the needs of patients with chronic pain from migrant and refugee backgrounds

Table 7: Key learnings from the SA Chronic Pain ECHO Network, intention to apply the key learnings, and applying the key learnings

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
1. Partnership with patients and patient-centred communication	a) Learning about the whole person	*"I liked the three most important questions to ask in the clinical interview, great way of learning more about my patient."* [hcp, satisfaction survey] *"[Understanding] perspectives of problems clients face"* [hcp, outcome survey] *"Greater understanding of the complexities of presentations."* [hcp, outcome survey] *"Chronic pain causes lots of stress and if left untreated will lead to family problems and impact on daily life, work efficiency relationships. It's important to follow up all patients responding to treatment."* [hcp, outcome survey]	*"Asking the patient to contribute more i.e., listen more than talk. Make sure the patient understands clearly and reduce fear."* [hcp, satisfaction survey] *"Incorporate different questions when gathering history."* [hcp, satisfaction survey]	
	b) Validating the patient experience	*"Every clinician has a role in that by our personal understanding of this and the language we use when supporting patients. Or the questions we ask when needed to understand and validate a situation."* [hcp, satisfaction survey] *"Pain is invisible symptoms, so it is best to trust my patient when they are in severe pain and do my ultimate treatment. Patient care and satisfaction should be the first priority."* [hcp, outcome survey]	*"Not sure these was specific bits to add to paramedic practice, however good to have an understand if we manage patients with this condition so as to show empathy and understanding."* [hcp, satisfaction survey] *"Encouragement for patient with small wins."* [hcp, satisfaction survey]	
	c) Importance of supporting patients with	*"It takes time to develop the skills to conduct an initial interview with a chronic pain patient and*	*"Regular pain medication review."* [hcp, satisfaction survey]	*"Firstly, I am recognising that some patients I have seen for years are chronic*

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
	chronic pain over time	*to support them in the long term."* [hcp, satisfaction survey] *"Regular review."* [hcp, satisfaction survey]		*pain patients. Identifying this is very helpful. I'm already practicing including some of the learnings about chronic pain management into these patients care plans."* [hcp, satisfaction survey]
2. Appropriate language and messaging related to chronic pain	a) Importance of appropriate language and messaging to reduce pain catastrophising	*"Clear messaging about safety and lack of danger important."* [hcp, satisfaction survey] *"Language matters and has long term consequences."* [hcp, satisfaction survey] *"The shift is to use language to increase safety message and decreasing threating message. Positive descriptive language used when discussing X Ray findings, some of these were new to me."* [hcp, satisfaction survey] *"Pain is perception and how to have this discussion with patients rather than avoiding it."* [hcp, satisfaction survey]	*"The language around ensuring it being painful but not dangerous is something I can incorporate into my practice."* [hcp, satisfaction survey] *"Learning to explain pain very early on in a patient's presentation."* [hcp, satisfaction survey] *"Change in language."* [hcp, satisfaction survey] *"Practice using the analogies for explaining pain. Be mindful of my use of language when talking about pain with my patients."* [hcp, satisfaction survey] *"Being selective with my language - empowering my patients through my communications."* [hcp, satisfaction survey] *"Address language we use to support and understand people's pain."* [hcp, satisfaction survey] *"Use the language in my consulting."* [hcp, satisfaction survey] *"Be aware of the language I use from the very first presentation. Practicing giving the answer to: Are*	

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
			you saying it is all in my head? I've had a few goes but I'm not comfortable yet." [hcp, satisfaction survey] *"I will incorporate a different language strategy and be more mindful of how I ask questions."* [hcp, satisfaction survey]	
3. Applying the biopsychosocial approach to pain care	a) Importance of the biopsychosocial approach to pain care and the multidisciplinary team	*"Better understanding of the way in which different practitioners can contribute and work together."* [hcp, outcome survey] *"Watching the various professionals coming up with different ideas for the case studies was illustrative of the many different ways of approaching pain management."* [hcp, outcome survey] *"Reiterating the importance of movement and pacing, as well as mental health and social situation on the experience of pain."* [hcp, outcome survey] *"Chronic pain is complicated, and I don't know everything but can reach out to others to get ideas."* [hcp, satisfaction survey] *"Multidisciplinary awareness."* [hcp, outcome survey] *"Increased awareness of having communication channels with GP/psychologist to assist in chronic pain management."* [hcp, outcome survey]	*"Ensuring that I gather history around all three elements (biomedical, social and psychological) rather than just the diagnosis so I can hand this information over to the treating clinician."* [hcp, satisfaction survey] *"Continue to emphasise non-pharmacological measures with increased authority."* [hcp, satisfaction survey] *"Ensure early engagement in a multidisciplinary manner for clients with CRPS."* [hcp, satisfaction survey] *"Alternative options for managing pain with reduced focus on medication management as the sole option."* [hcp, satisfaction survey] *"Reinforcing the value of the multidisciplinary approach to chronic pain management."* [hcp, satisfaction survey] *"Confidence in applying and adhering to principles I have been aware of; resisting being deferred from effective strategies by patient distractors."* [hcp, satisfaction survey]	*"So many new ideas were floated, and I will be discussing this with my patient e.g., use of low-cost physio via COTA, using Uni clinics for EP, Physio, Psyche, redoing a mental health care plan for referral to new eyes."* [case presenter survey] *"MDT [multidisciplinary team] input in the management of chronic pain is very beneficial."* [case presenter survey] *"The information I received from the panel allowed me to encourage my patient to re-engage in psychological supports and to consider volunteering as a gardener in the community garden. He*

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
				has not done these things yet, but we are discussing these." [case presenter, outcome survey]
	b) Specifically, the importance of incorporating the psychological approach to pain care - including addressing mental health issues, teaching patients self-management strategies, and referral to clinical psychologists if required	*"That the biomedical, psychological and social situations of a patient are all recognised elements of chronic pain management rather than just the biomedical side."* [hcp, satisfaction survey] *"Overwhelming importance of mental health in chronic pain management."* [hcp, satisfaction survey] *"The importance of ongoing psychological support throughout the pain journey."* [hcp, satisfaction survey] *"Some good analogies to use with patients when trying to move them away from the biomedical view of pain."* [hcp, satisfaction survey] *"Ask the patient 'Are your thoughts benefiting you'?"* [hcp, satisfaction survey] *"The presentation highlighted the importance of language and psychological reframing and guiding patients to progress with goal setting and achievement in spite of chronic pain."* [hcp, satisfaction survey] *"I liked the concept of untangling the multifaceted psychological stressors that add to the pain experience."* [hcp, satisfaction survey]	*"I will emphasise the value in managing psychological stressors that add to the pain experience and encourage clients to discuss such issues with their GP for consideration of psych referral if warranted."* [hcp, satisfaction survey] *"Increase mindfulness exercises with patients."* [hcp, satisfaction survey] *"Help clinicians in my area understand the psychology around Overactivity cycle / fear avoidance / hurt verses harm thoughts."* [hcp, satisfaction survey] *"Address mental health as a priority."* [hcp, satisfaction survey] *"Keep asking: What is the condition now? Is it predominantly depression now - or health anxiety. Start talking about peer support."* [hcp, satisfaction survey] *"Use of pain psychologist more."* [hcp, satisfaction survey]	*"I now encourage patient to treat their PTSD / depression / anxiety because they experience more pain if their mental health is poor."* [hcp, outcome survey] *"Program of peer support for patient Adelaide Pain Support Network and COTA services. Provide these options to my patients now."* [hcp, outcome survey]

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
		"The ways CBT and ACT can benefit patients with chronic pain." [hcp, satisfaction survey] *"Multiple lifestyle factors contribute to pain experience."* [hcp, satisfaction survey] *"Psychological aspect is a very large aspect of recovering from chronic pain."* [hcp, satisfaction survey] "*Increased awareness of having communication channels with GP / psychologist to assist in chronic pain management."* [hcp, outcome survey]		
	c) Specifically, the importance of incorporating the social approach to pain care including promoting social connection and community groups	*"I feel confident to 'prescribe' connecting with others as one of the non-pharmacological treatments for chronic pain."* [hcp, outcome survey] *"'Life' medicine can change brain chemistry. Advise patients to 'self-medicate' with the things that they like - walking social group, socialising, gardening, etc… "*[hcp, satisfaction survey] *"Connecting with others doing an activity that is enjoyable (such as gardening) can lessen the pain."* [hcp, satisfaction survey] *"Multiple lifestyle factors contribute to pain experience."* [hcp, satisfaction survey] *"Importance of support network."* [hcp, satisfaction survey]	*"Getting patients to make their plans themselves with help."* [hcp, satisfaction survey] *"I will remember the importance of social connection in the treatment of chronic pain."* [hcp, satisfaction survey]	*"I [now] encourage my patient to connect with others because when we connect, we feel happier, and this results in decreasing pain levels."* [hcp, outcome survey] *"The information I received from the panel allowed me to encourage my patient to re-engage in psychological supports and to consider volunteering as a gardener in the community garden. He has not done these things yet, but we are discussing*

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
		"Interaction with other patients who have gone through the same thing via the consumer forums was a fantastic idea." [hcp, satisfaction survey]		*these."* [case presenter, outcome survey]
	d) Specifically, the importance of incorporating physical activity into pain care and referral to physiotherapists	*"Scope of physio practice and their pathways."* [hcp, satisfaction survey] *"Physiotherapists and pain expertise."* [hcp, satisfaction survey] *"Reiterating the importance of movement and pacing, as well as mental health and social situation on the experience of pain."* [hcp, outcome survey]	*"Making movement more fun and achievable."* [hcp, satisfaction survey] *"I will educate clients on the likelihood of flare ups in pain and having a strategy to manage such flare ups when adopting a graded exposure to activity approach."* [hcp, satisfaction survey] *"More physio involvement."* [hcp, satisfaction survey] *"Use of physio - specifically neuro physio."* [hcp, satisfaction survey] *"Early referral to physiotherapist."* [hcp, satisfaction survey] *"Use of pelvic floor physiotherapist more."* [hcp, satisfaction survey]	*"[Applying the learnings by communicating the] importance of physical therapy and activity pacing."* [hcp, outcome survey]
	e) Understanding cost and travel barriers for patients to access allied health care and improving accessibility through online or virtual options	*"Access to psychologists remotely."* [hcp, satisfaction survey] *"If cost is an issue for physio and pain psychology care, consider using the University clinics."* [hcp, satisfaction survey] *"The available online options for psychology."* [hcp, satisfaction survey] *"Greater understanding of the systemic difficulties involved in accessing care."* [hcp, outcome survey]	*"To search for psychological patient support including online if FTF is unavailable."* [hcp, satisfaction survey] *"University physio and psychology clinics are an option for low-income earners."* [hcp, satisfaction survey]	*"It definitely did [change the management of my patient]. I was not aware of the resources available for the patient e.g., COTA, physio services from universities because cost is the main issue for most older adults who suffer from chronic pain."* [case

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
				presenter, outcome survey]
	f) The appropriate use of medicines for chronic pain	*"Clarifying which drug classes are prescribed for different types of pain - the challenges around prescribing with tolerance, expectations, side effects, long term use."* [hcp, satisfaction survey] *"The role of different medications and expected outcomes of use as well as pitfalls was presented clearer than I have seen in other places. Very practical information."* [hcp, satisfaction survey] *"The brief summary of medication management was great. Always confusing as to which one to use."* [hcp, satisfaction survey] *"Chronic narcotic management."* [hcp, satisfaction survey]	*"Reduction in pain medication dose."* [hcp, satisfaction survey] *"Maintain awareness of all drug interactions as many of these patients are on poly pharmacy."* [hcp, satisfaction survey] *"Increase the vigour in my attempts to reduce dose of pregabalin in patients who have been on it for too long in too high a dose."* [hcp, satisfaction survey] *"Become familiar with the FPM opioid calculator."* [hcp, satisfaction survey] *"Offer a variety of medications to patients."* [hcp, satisfaction survey] *"Better understanding of medication role."* [hcp, satisfaction survey] *"Improve my explanation of the role of medication in chronic pain. Change which medications I do prescribe for pain management."* [hcp, satisfaction survey] *"Change the way I prescribe Pregabalin and use alternative and safer option."* [hcp, satisfaction survey]	*"Medications that I can use confidently in managing chronic pain in older patients. Medications that I should avoid for such patients." [hcp, outcome survey]*

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
	g) Strategies to support opioid tapering	*"Multidisciplinary approach [to tapering]."* [hcp, satisfaction survey] *"Tapering meds [requires] multidisciplinary team."* [hcp, satisfaction survey]	*"Being careful of my language choice around opioids - being careful when educating patients (so that I'm not actually just feeding their anxieties) when discussing potential destinations/interventions they may offer."* [hcp, satisfaction survey] *"X [clinician's] way of of explaining to his patients to taper was great, I will use this language in my consulting."* [hcp, satisfaction survey]	*"Opioid reduction."* [hcp, outcome survey]
	h) Sleep management strategies	*"Consider the patient in their environment - interaction of medications, habits etc; use sleep hygiene and encourage routines."* [hcp, satisfaction survey] *"Found the session on sleep and chronic pain very useful as it provided strategies to manage both these issues."* [hcp, outcome survey] *"Medications that can help with sleep and chronic pain."* [hcp, satisfaction survey]	*"So many older patients seek help with sleep issues associated with chronic pain and knowing what might work can then be applied to their issues."* [hcp, satisfaction survey]	
4. Available resources	a) Available resources for use by health care providers in their consultations with patients with chronic pain and/or by	*"[Improved] knowledge of available resources for personal and client use."* [hcp, outcome survey] *"Resource of SA Health Pathways."* [hcp, satisfaction survey] *"Adelaide Pelvic Pain network."* [hcp, satisfaction survey]	*"More resources to use with clients, looking up website resource information to provide further resources."* [hcp, satisfaction survey] *"Educational materials for self and patients."* [hcp, satisfaction survey] *"Utilise resources more and develop handy list to access quickly."* [hcp, satisfaction survey]	*"Use of available resources."* [hcp, outcome survey

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
	patients with chronic pain	*"EndoZone and Pelvic floor foundation are good resources for endometriosis."* [hcp, satisfaction survey] *"Pain tool kit."* [hcp, satisfaction survey] *"The pain assessment tool worksheet that was recommended was a new resource I was not aware of."* [hcp, satisfaction survey] *"Local referral resources for use with clients."* [hcp, satisfaction survey] *"There are a 'fair few' resources out there that can be provided at a cheaper cost to patients."* [hcp, satisfaction survey] *"Access to a multitude of resources."* [hcp, outcome survey]	*"Opioid total doses – app."* [hcp, satisfaction survey] *"Share Beers list."* [hcp, satisfaction survey] *"Using the BEER list to look for medication interactions in geriatric patients--never heard about it before."* [hcp, satisfaction survey] *"Apps assessment tools."* [hcp, satisfaction survey] *"Will look at the two the diagnostic tools for diagnosing neuropathic pain provided -DN4 questionnaire and painDETECT and start using in my clinic."* [hcp, satisfaction survey] *"Use of Orebro Musculoskeletal Pain Screening tool."* [hcp, satisfaction survey] *"I will direct my patient suffering with endometriosis to the EndoZone and Pelvic Pain Foundation websites."* [hcp, satisfaction survey]	
5. (Minor theme) Better understanding of the types of chronic pain and risk factors for progression to chronic pain after surgery	a) Types of chronic pain	*"I liked the definitions of the types of pain."* [hcp, satisfaction survey] *"Better understanding of CRPS"* [hcp, satisfaction survey] *"Broadened my thinking and 'toolbox' regarding different ways to approach different presentations of pain."* [hcp, outcome survey]	*"Diagnosis/ cause classification."* [hcp, satisfaction survey] *"Try to determine the type of pain. The concept of nociplastic pain was clearly described and very helpful."* [hcp, satisfaction survey]	
	b) Risk factors for chronic pain after surgery	*"Risk factors for development of chronic pain post-surgery."* [hcp, satisfaction survey]		

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
	and strategies to prevent progression to chronic pain	*"Good communication with the specialist - importance of acute flare up plan."* [hcp, satisfaction survey] *"Review pain management regularly."* [hcp, satisfaction survey] *"Treatment options for much older patients."* [hcp, satisfaction survey] *"Up to date management of diseases and diversity of treatment [multidisciplinary]."* [hcp, satisfaction survey]		
6. (Minor theme) Better understanding about referral pathways and the health care system	a) Information about referral pathways and the health care system	*"[Improved] knowledge of potential referral sources (other local practitioners)."* [hcp, outcome survey] *"As an IMG [International Medical Graduates] doctor it helped me to know where to refer patients. Also multiple sources of information which help me to understand the Australian health system."* [hcp, satisfaction survey] *"Knowledge of the existence of the hills integrated pain team."* [hcp, satisfaction survey] *"I appreciate having access to these sessions with information about local processes and the way the public system operates; I attend to get insight into how to navigate through the systems which is difficult because they are complex, often change without warning, have slow websites or not available when needing to access. Dialogue between treating physicians is imperative in*	*"More referrals to COTA/Uni clinics and Consumer support groups."* [hcp, satisfaction survey] *"Educate clients regarding the enhanced care plan scheme to enable clients to attend sessions that have been referred by their GP."* [hcp, satisfaction survey] *"Learn about referral to hills integrated pain team."* [hcp, satisfaction survey]	*"Ongoing reference source of practitioners and reference materials for use and referral when needed."* [hcp, outcome survey] *"It definitely did [change the management of my patient]. I was not aware of the resources available for the patient e.g., COTA, physio services from universities because cost is the main issue for most older adults who suffer from chronic pain."* [case presenter, outcome survey]

Key learnings - themes	Key learnings - subthemes	Key learnings – quotes from participants	Intention to apply the key learnings – quotes from participants	Applying the key learnings – quotes from participants
		caring for complex needs and has been lost in the last 2 decades." [case presenter survey]		
7. (Minor theme) Better understanding of the needs of patients with chronic pain from migrant and refugee backgrounds	a) Patients from migrant and refugee backgrounds with chronic pain need additional support	*"The case refugee patients require special resources, support and evaluation."* [hcp, satisfaction survey] *"The importance of not using family members as interpreters when dealing with patients with a background of trauma."* [hcp, satisfaction survey]	*"Ensure that I have contact details for interpreting services easily accessible."* [hcp, satisfaction survey]	*"I had been trying to refer the patient to rehab but had no response from the referral place and couldn't find the forms - these were provided which was helpful, thank you. There was a conflict in advice given on the night [of the ECHO] which was resolved in the written advice by their suggestion to refer the patient to their chronic pain clinic."* [case presenter]
8. (Minor theme) Better understanding of the burden of chronic pain on the individual		*"Chronic pain leads to significantly decreased quality of life, reduced productivity, lost wages, worsening of chronic disease, and psychiatric disorders such as depression, anxiety, and substance abuse disorders. Patients with chronic pain are also at a significantly increased risk for suicide and suicidal ideation. It's very important to treat patients with chronic pain to avoid further complications as outlined above."* [hcp, outcome survey]		

Note, hcp = health care professional who participated in the SA Chronic Pain ECHO Network

viii. Perceived multi-level barriers to changing practice

More than one third of health care professional participants (42% across the series), *See Figure 26*, thought that there were barriers to applying the application of learnings from the SA Chronic Pain ECHO Network, that is, delivering best practice pain care (aligned to a biopsychosocial approach).

Multi-level barriers identified by participants to applying the learnings from the SA Chronic Pain ECHO Network, that is, delivering best practice pain care (aligned to a biopsychosocial approach) are outlined in *Figure 27* and *Table 8*.

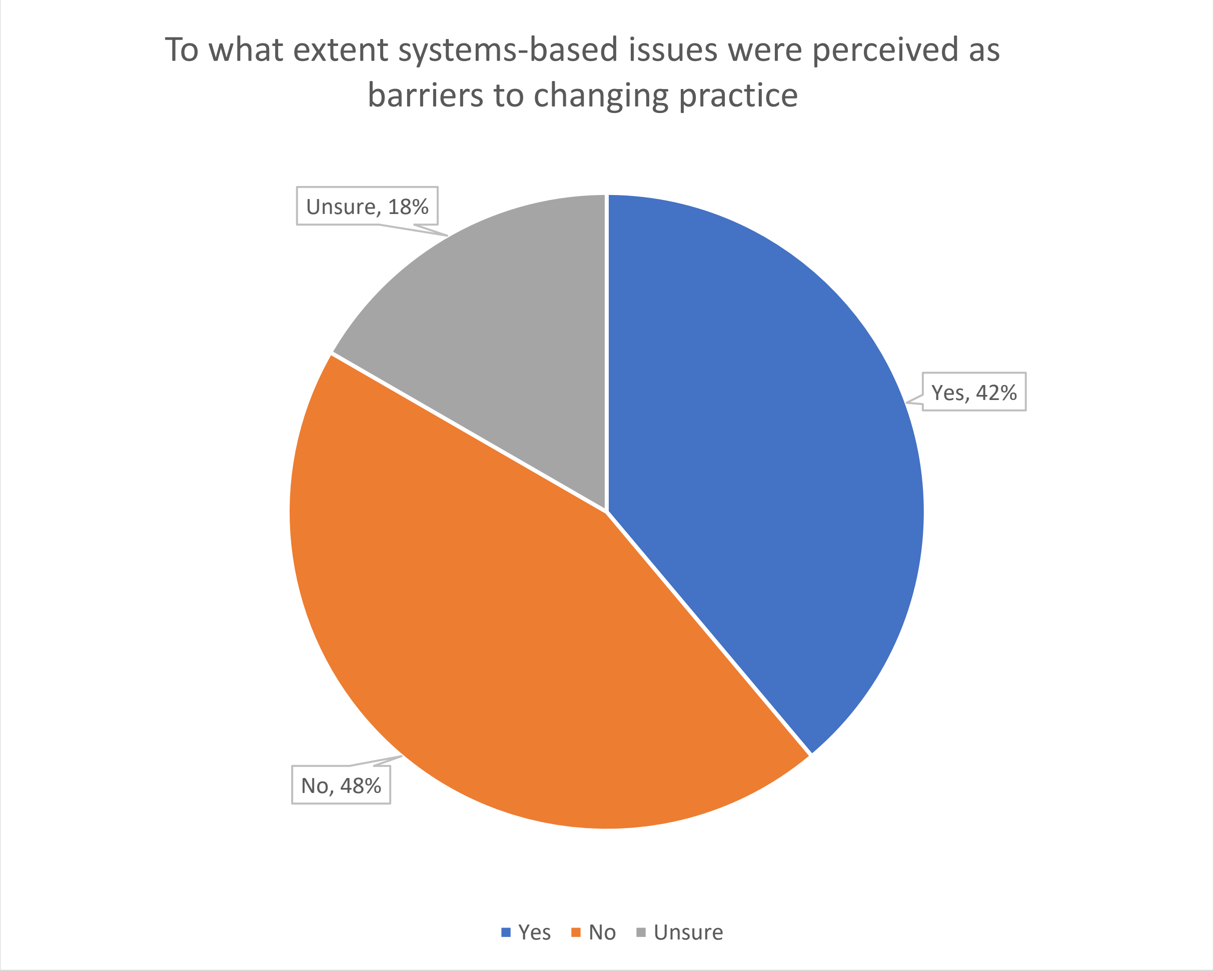

Figure 26: To what extent systems-based issues were perceived as barriers to changing practice

Note, average percentages across the series using satisfaction survey data (N=5-13). Average = 11 survey respondents per ECHO session. Total of respondents for this question = 104

Patient related barriers

- Cost barriers for patients to access best practice pain care (aligned to the biopsychosocial approach)
- Travel barriers for patients to access best practice pain care (aligned to the biopsychosocial approach)
- Perceived patient attitudes not aligned to best practice pain care (aligned to the biopsychosocial approach) and lack of motivation
- Patients with low literacy and low health literacy requiring additional resources and support
- Patients from CALD communities requiring additional resources and support

Health care professional related barriers

- Perceived lack of time during patient consultations to deliver best practice pain care (aligned to the biopsychosocial approach)
- Perceived lack of appropriate health care professional education to deliver best practice pain care (aligned to the biopsychosocial approach)
- Lack of access to resources especially for people with low literacy and low health literacy
- Difficulty forming a multidisciplinary team within general practice

Funding related barriers

- Perceived lack of remuneration of health care professionals to deliver best practice pain care (aligned to the biopsychosocial approach)
- Perceived lack of funding for group-based pain programs
- Perceived lack of funding for appropriate pain services for CALD communities
- Perceived lack of funding for workforce training to deliver best practice pain care (aligned to the biopsychosocial approach)

Workforce barriers

- Health care professional workforce shortages to deliver best practice pain care (aligned to the biopsychosocial approach)

Society-related barriers

- Media communication not aligned to best practice pain care (aligned to the biopsychosocial approach)

Figure 27: Perceived multi-level barriers to changing practice

Table 8: Perceived multi-level barriers to changing practice

Multi-level barriers to changing practice identified by participants			**Quotes from participants**
Theme		Sub-theme	
A	Perceived patient-related barriers	i. Cost barriers for patients to access best practice pain care (aligned to the biopsychosocial approach)	*"Lack of funds for older people."* [hcp, outcome survey] *"Access to multidisciplinary public sector teams for low-income patients."* [hcp, satisfaction survey] *"It is difficult to access a multidisciplinary team for all patients with chronic pain."* [hcp, satisfaction survey] *"Cost of team treatment for patients."* [hcp, satisfaction survey] *"Medicare eligibility."* [hcp, satisfaction survey] *"Lack of availability of specialised allied health services and if these are available then financial restrictions for easy access."* [hcp, satisfaction survey] *"Accessibility to allied health care – cost."* [hcp, satisfaction survey] *"The evidence based best practice is not affordable for some people."* [hcp, satisfaction survey] *"Lack of access to non-pharmacological options."* [hcp, satisfaction survey] *"As discussed, can be difficult for patients to financially access a multi-D approach."* [hcp, satisfaction survey] *"Costs of various options because most patients are pensioners."* [hcp, satisfaction survey] *"Lack of access to affordable physio and pain psychology."* [hcp, satisfaction survey]
		ii. Travel barriers for patients to access best practice pain care (aligned to the biopsychosocial approach)	*"Not all are able to travel for the MDT services: telehealth."* [hcp, outcome survey] *"It is very difficult for my patients to access a chronic pain team due to distance from team and cost of private providers."* [hcp, satisfaction survey]
		iii. Perceived patient attitudes not aligned to best practice pain care (aligned to the	*"Overcoming expectations of magic bullet."* [hcp, satisfaction survey] *"Not sure all patients are as motivated. Most want quick fixes and will not want to make any effort to help themselves. I guess I will need to reword and reframe issues to them to get their buy in."* [hcp, satisfaction survey]

Multi-level barriers to changing practice identified by participants			**Quotes from participants**
	Theme	Sub-theme	
		biopsychosocial approach) and lack of motivation	*"Patient education."* [hcp, satisfaction survey]
		iv. Patients with low literacy and low health literacy requiring additional resources and support	*"Access to resources especially for low literacy and low health literacy."* [hcp, satisfaction survey]
		v. Patients from CALD communities requiring additional resources and support	*"Many of my patients struggle with poverty and have limited capacity to pay for allied health and interpreting services are not covered for these sessions so they rely on family which is very tenuous - lots of loss of confidentiality and redirected instructions when family is used for language provision."* [hcp, satisfaction survey]
B	Perceived health care professional-related barriers	i. Lack of time during patient consultations to deliver best practice pain care (aligned to the biopsychosocial approach)	*"Time, always short appointments, unable to allow the patient to feel comfortable to express everything."* [hcp, satisfaction survey] *"Time and remunerable time."* [hcp, outcome survey] *"Workflow."* [hcp, outcome survey] *"Available time for consultation."* [hcp, satisfaction survey] *"Limited time in usual GP consultation."* [hcp, satisfaction survey] *"Time constraints in standard consultations."* [hcp, satisfaction survey] *"Chronic pain is complex issue. Needs to be individualised and especially important to allow the patient to be heard. Time based MBS criteria do not allow this to occur in private practice especially for the vulnerable and poorer people in our communities. In private practice this means unable to maintain business to care for these people appropriately."* [hcp, satisfaction survey]

Multi-level barriers to changing practice identified by participants			Quotes from participants
	Theme	Sub-theme	
			"Funding is a problem. Having enough time to apply biopsychosocial methods - current funding structure encourages rapid through put and discourages well considered tailored therapies that result in less medications and less medication accidents." [hcp, satisfaction survey]
		ii. Lack of appropriate health care professional education to deliver best practice pain care (aligned to the biopsychosocial approach)	*"Further education."* [hcp, outcome survey] *"In paramedicine in Australia paramedics, we don't get much multidisciplinary exposure. We don't get to see the other side of a patient's journey. This creates an easy environment for stereotyping patient groups. We don't understand our role in the whole health care system or the patient's journey, we just want to fix the here and now. We don't manage expectations; we don't think about language we use or the bigger picture for a patient or family. I know I am generalising and not all paramedics do this, but I think the system that educates us needs to address this too. Understanding of pain, chronic verses acute, expectations, language, psychosocial aspects of assessment."* [hcp, satisfaction survey]
		iii. Lack of access to resources especially for people with low literacy and low health literacy	*"Access to resources especially for low literacy and low health literacy."* [hcp, satisfaction survey]
		iv. Difficulty forming a multidisciplinary team within general practice	*"Not working in a team and finding it difficult to create one in GP."* [hcp, satisfaction survey] *"The difficulty in creating a team in general practice; I'm not working in the same place as the team, and this creates a barrier for development of a team approach."* [hcp, satisfaction survey] *"Access to affordable rehab options is very limited. Even with TCAs [Team Care Arrangement] it's difficult to create a treating team in general practice."* [hcp, satisfaction survey] *"Better teamwork [needed] which includes primary care generalists who have long term patient management already in place."* [hcp, satisfaction survey]
C	Perceived funding	i. Perceived lack of remuneration of health	*"MBS reimbursement - no one can do this work effectively with current pressures/MBS items."* [hcp, satisfaction survey]

Multi-level barriers to changing practice identified by participants			**Quotes from participants**
Theme		Sub-theme	
	related barriers	care professionals to deliver best practice pain care (aligned to the biopsychosocial approach)	*"I already choose to spend longer with patients with reduced personal income and as a consequence it has ramifications on the practice, but we are a group of like-minded people with strong notions of social justice."* [hcp, satisfaction survey] *"MBS reinforces need for speed in consultations - the quickest way is to give the patient a piece of paper - a prescription or an investigation. I tend to prefer slow medicine and use more blank paper with instructions than prescription or investigation, but this compromises the capacity for the practice to be financially viable - it continues to be barely covering costs."* [hcp, satisfaction survey] *"Access to affordable rehab options is very limited. Even with TCAs it's difficult to create a treating team in general practice."* [hcp, satisfaction survey] *"Better reimbursement for time input."* [hcp, satisfaction survey] *"MBS!!!!"* [hcp, satisfaction survey]
		ii. Perceived lack of funding for group-based pain programs	*"Sadly, funding grants favour NGOs and consider private GPs ineligible which ended our group education sessions. There seems to be discrimination against GPs in these areas. I am too cynical to seek solutions when the seeking takes precious resources that could be spent on patient care."* [hcp, satisfaction survey]
		iii. Perceived lack of funding for appropriate pain services for CALD communities	*"Funding access for services for CALD community."* [hcp, satisfaction survey]
		iv. Perceived lack of funding for workforce training to deliver best practice pain care (aligned to the biopsychosocial approach)	*"Funded educational programs to practitioners especially early career and recently arrived O/S trained."* [hcp, satisfaction survey]
D	Perceived workforce shortages	i. Health care professional workforce shortages to deliver best practice pain	*"Education regarding pacing and ongoing psychological support require access to disciplines that are unavailable in the public system. An ongoing multidisciplinary team is very hard to initiate and maintain outside of hospital."* [hcp, satisfaction survey]

Multi-level barriers to changing practice identified by participants			**Quotes from participants**
	Theme	Sub-theme	
		care (aligned to the biopsychosocial approach)	*"I can use language to help people, but I need access to psychologists for this to be continued and currently timely appointments are not available."* [hcp, satisfaction survey] *"Medicare waiting lists."* [hcp, satisfaction survey] *"Lack of availability of specialised allied health services and if these are available then financial restrictions for easy access."* [hcp, satisfaction survey] *"Better access to allied health."* [hcp, satisfaction survey] *"Prompt access to specialist services for procedures that complement the work I am doing rather than repeating work I have done."* [hcp, satisfaction survey] *"Access to specialist multi D teams."* [hcp, satisfaction survey]
E	Perceived society-related barriers	i. Media communication not aligned to best practice pain care (aligned to the biopsychosocial approach)	*"TV and media depiction of pain killers."* [hcp, satisfaction survey] *"Current media comments about low value care may be misunderstood when needing to build treatment alliance with these patients."* [hcp, satisfaction survey]

ix. Perceived importance of sustaining the Chronic Pain ECHO Network

Participants thought the SA Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if resources were available.

All survey respondents (of the outcome survey after the series) thought that the Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if resources were available.

The perceived benefits of an ongoing Community of Practice focusing on chronic pain for participants:

> *"Informational and collegial support ongoing with management of clients." [hcp, outcome survey]*
>
> *"Up to date PD awareness and skill maintenance."* [hcp, outcome survey]
>
> *"Bouncing off ideas if one reaches a dead end in managing a patient."* [hcp, outcome survey]
>
> *"On-going assessment for pain chart and medication adjustment according to the chart."* [hcp, outcome survey]
>
> *"Broader and more intimate referrals and support to manage patients."* [hcp, outcome survey]
>
> *"Importance of multidisciplinary team in managing patients with chronic pain."* [hcp, outcome survey]

Ideas suggested for the format of an ongoing Community of Practice focusing on chronic pain included current format as a didactic followed by a case presentation, perhaps less frequent; online support group with a facilitator; and an online Facebook page:

> *"Online support FB page."* [hcp, outcome survey]
>
> *"Online support group with facilitator."* [hcp, outcome survey]
>
> *"Current format or FB page."* [hcp, outcome survey]
>
> *"Yes [an ongoing ECHO] but maybe less frequent meetings (2 monthly?)."* [hcp, outcome survey]

One participant suggested an online forum for patients and carers:

> *"I think an online forum for the practice related community would be great so patients and caregivers can share their experiences and concerns."* [hcp, outcome survey]

B. What was the impact of the SA Chronic Pain ECHO Network on ECHO Hub panel members?

Response rate of the ECHO Hub panel survey

Five out of six Hub panel members completed the ECHO Hub panel survey (response rate = 83%).

i. Satisfaction and experience of ECHO Hub panel members

Perceptions of the ECHO model

The majority of Hub panel survey respondents liked the ECHO model i.e., a didactic presentation followed by a case discussion (n=4; 80%), *see Figure 30*. They particularly valued the case presentation and discussion:

> *"[I liked the] panel discussion of patient cases - always good to discuss real life cases and hear everyone's perspectives and ideas."* [Hub panel member survey]
>
> *"I liked the case discussion and question periods. I thought that worked well."* [Hub panel member survey]

One Hub panel member commented on the value of ECHO session 10 which involved a Q and A session with the panel:

> *"The panel open question in the final session of the Chronic Pain Echo seemed to work well. Questions were thought about and submitted the week before and interest from the audience was generated by the questions asked. It seemed to flow better than some of the case studies. The facilitator did an excellent job of involving all members of the panel and encouraged the audience to introduce themselves and ask questions, although it was more difficult to get that involvement consistently."* [Hub panel member survey]

One Hub panel member thought the didactics were limited due to the limited time to comprehensively summarise each topic:

> *"The didactics were useful but on a limited basis. It was difficult given time constraints and the preparation required to go into depth about the concepts for each session."* [Hub panel member survey]

All the Hub panel survey respondents liked the multidisciplinary hub panel approach (n=5; 100%), *see Figure 28*. Panel members commented on the quality of the team:

> *"Having a good team - physio / psychologist / GP /pain doctor - sharing the holistic approach to chronic non-cancer pain."* [Hub panel member survey]
>
> *"Great to work within a very good team."* [Hub panel member survey]

All the Hub panel survey respondents liked the sense of a 'Community of Practice' with other health professionals (hub panel and participants) with an interest in chronic pain (n=5; 100%), *see Figure 28.*

Benefits for Hub panel members

The benefits for Hub panel members of participating in the SA Chronic Pain ECHO Network included:

> *"It was good to get an understanding of the difficulties, challenges, level of knowledge, and understanding of chronic pain and it's treatment, from people who are not immersed in chronic pain treatment as their primary role."* [Hub panel member survey]

> *"Valuable to hear issues directly from GPs. I do quite a large amount of GP education, but this allowed the raising of issues not otherwise covered."* [Hub panel member survey]

> *"ECHO provided an opportunity to work in a multidisciplinary setting, share knowledge and gain new knowledge and develop a cross disciplinary network. Participating also provides evidence as my standing as an expert in the field of chronic pain, and evidence of impact in chronic pain. There is some kudos teaching across disciplines, despite the fact we all need to be on the same page actually."* [Hub panel member survey]

> *"Sharing and gaining knowledge; prompted me to review recent literature."* [Hub panel member survey]

> *"I enjoyed being part of a team educational pane."* [Hub panel member survey]

> *"I'm very grateful to have been given the opportunity - many thanks!"* [Hub panel member survey]

Challenges or negative consequences of participation in the ECHO program

The majority of Hub panel survey respondents did not experience any challenges or negative consequences personally of participating in the SA Chronic Pain ECHO Network. However, a couple of Hub panel members thought that the time commitment was a challenge for them and highlighted the need to indicate this during recruitment of potential Hub panel members:

> *"The time demands of slide / talk preparation were challenging on top of a normal workload. I was not aware of this requirement at the commencement and found it difficult to do the level of research and preparation required."* [Hub panel member survey]

> *"Time commitment was significant."* [Hub panel member survey]

Co-presenting was commented on as a way to reduce the burden of developing the didactics:

> *"Sharing the sessions with another pain specialist was good in preventing overload (multiple other education demands out of hours) but perhaps took away continuity."* [Hub panel member survey]

Perceptions of the online format and duration of the ECHO sessions

The majority of Hub panel survey respondents thought the online delivery format was more accessible to them than a face-to-face format on a regular basis (n=4; 80%), *see Figure 30.*

However, only one Hub panel survey respondent was able to use the technology without any problem (n=1; 20%)

> *"Perhaps the IT sometimes could be a challenge particularly with having an apple product."* [Hub panel member survey]

All the Hub panel survey respondents thought the duration of the ECHO session was feasible for them to participate in (n=5; 100%), *see Figure 28*.

Improvements

Hub panel members commented on aspects of the SA Chronic Pain ECHO Network that they did not like or perceived as needing improvement:

> *"Challenge of presenting complex pain topic in 25 mins but recognise benefit of honing it down to acceptable length for this structure."* [Hub panel member survey]
>
> *"The presentations did not necessarily blend well together - there seemed to be a fair bit of repetition across the weeks. While efforts were made to link the cases to the topic of the presentation, this was not always achieved."* [Hub panel member survey]
>
> *"The challenges included - a reticence for the audience to switch on their cameras, and hence there was a comfortable anonymity about the sessions, but I think interaction was lost as a result."* [Hub panel member survey]

One Hub panel member thought that non-pharmacological aspects of pain management could be explored more fully:

> *"The sessions might have been heavily weighted towards medication as the audience was primarily GPs, but perhaps an opportunity to get to grips with alternative ways to manage chronic pain was not fully explored."* [Hub panel member survey]

Ideas for improvements included:

> *"The case studies had a complex flavour to them with different cultures, abusive home lives requiring skills other than just the management of chronic pain – indeed it would be great to involve the medically sharp champions from some of the larger and more evident cultural groups (for example refugees who were medicos in their country, but who cannot work in Australia in the same capacity, yet hold sway with medical culture amongst the refugee population and still consider chronic pain very much from a biomedical perspective) involved as panel members or in the audience. Or as a spin off to recognise that this is an area of unmet need in the chronic pain landscape and direct training towards that area?"* [Hub panel member survey]
>
> *"I did wonder whether just having the case presentations/discussion would be better, with resources developed to provide the information that would have otherwise been imparted though the didactic component. This could be then provided to participants to peruse in their own time or maybe prior to the sessions. If the didactic aspect remained, it would be useful to have these pre-prepared, perhaps by those in the research world that have the latest updates at hand, and then the panel members could present those."* [Hub panel member survey]
>
> *"I wonder whether it would be more interactive if we had a case presentation every second session interlaced with facilitated discussion about the previous*

> *didactic content, or other things the audience would like to explore about chronic pain."* [Hub panel member survey]
>
> *"I wonder whether speaking to someone who had recovered from chronic pain might be helpful? Often in the fast-paced world of GP land, when someone doesn't come back you don't get the reward of hearing how they recovered. Turning from a heart-sink patient into an inspirational one - who doesn't need you anymore. I think we can learn from knowing that people recover and better still HOW they recover."* [Hub panel member survey]
>
> *"Now that we've run this once and have a series of presentations on the topics, it would be good to refine them into a more consistent set."* [Hub panel member survey]
>
> *"Possibly make the program a little shorter- it was quite long meaning quite a commitment when attending all sessions."* [Hub panel member survey]

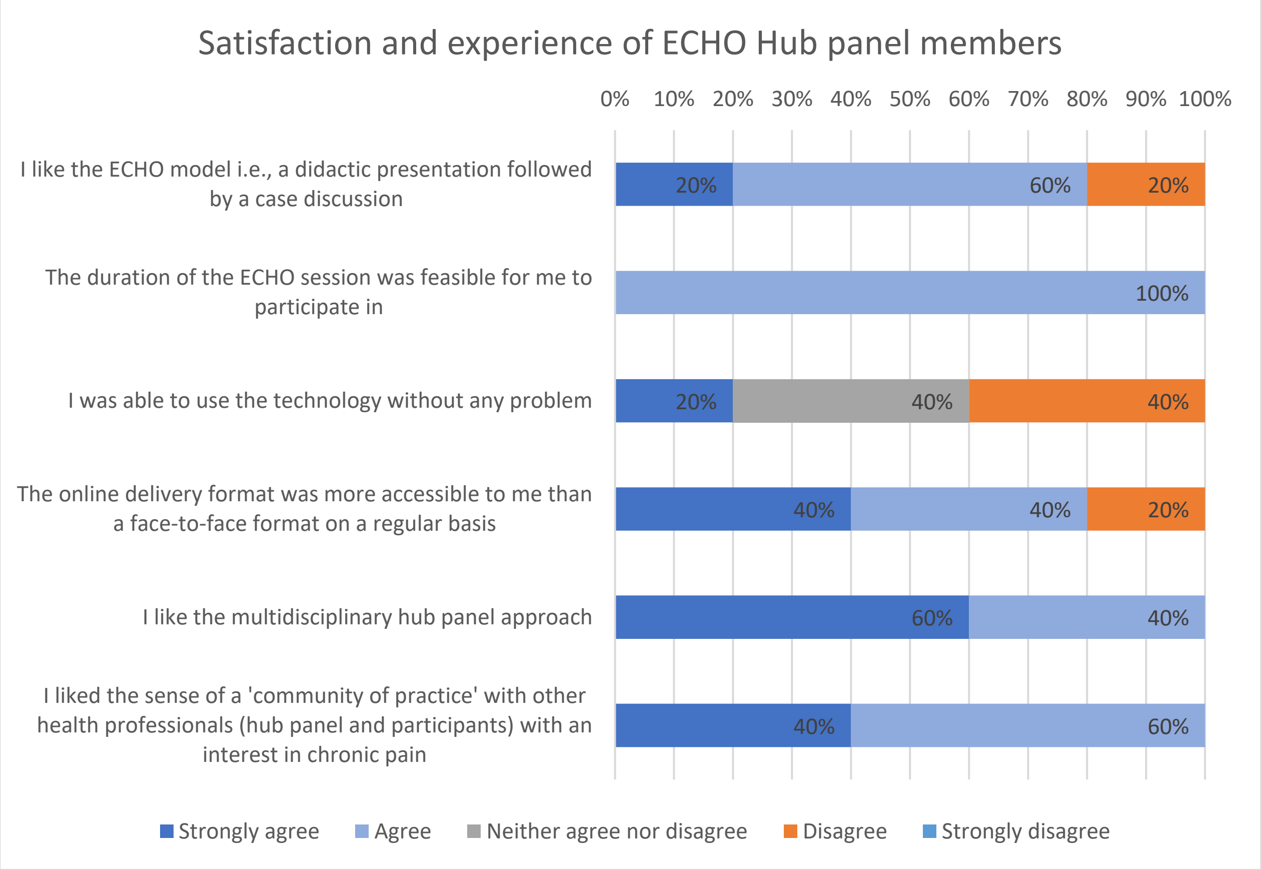

Figure 28: Satisfaction and experience of ECHO Hub panel members

Note, ECHO Hub panel survey respondent data (n=5)

ii. Perceptions of the support received to deliver the ECHO sessions

Only one Hub panel survey respondent received any training in the ECHO model (n=1; 20%) and this included *"a brief introduction to the model"*.

All Hub panel survey respondents who did not receive any training would have liked additional training in delivering the ECHO model, if resources were available (e.g., about the ECHO model principles, running an ECHO, participant engagement and how to provide feedback to participants, developing a good didactic, how to work as a team panel) (n=4; 100%).

The type of training desired included: *"Developing the slides/talks and developing a good didactic"; "training in facilitation of participant engagement, and how to provide the tough feedback to participants if they are right off the track";* and *"working as a team".*

iii. Whether the ECHO program was considered a 'value-add' compared to other education programs

Most Hub panel survey respondents thought the ECHO program was a 'value-add' compared to other education programs due to accessibility and reach, interactivity, relevance to practice and potential for developing a more sustained Community of Practice:

> *"I thought the model was good, and better then F2F because it allows for a broader reach but still with participation / interaction with the participants."* [Hub panel member survey]
>
> *"Clearly accessibility is the main advantage."* [Hub panel member survey]
>
> *"Better - I like that participants contribute their own real cases, makes it more meaningful."* [Hub panel member survey]
>
> *"F2F workshops ideal for me but would like to try ECHO model in that setting. Recognise F2F difficulties and online [accessible] for many attendees."* [Hub panel member survey]
>
> *"For subjects such as chronic pain, deep learning only comes with reflection and digestion of information and the 12 weeks helped with that as did the interactive component. Neither a webinar nor short term workshops would allow for that. It is necessary to have some information - take it away, work with it in the clinic, adjust come back, throw the ideas around. Hence in theory this is a better model than most, the extension being that a Community of Practice might form from within and further learning and reflection in a safe and exploratory environment could continue."* [Hub panel member survey]

iv. Perceived importance of sustaining the SA Chronic Pain ECHO Network and potential factors to sustaining the program

All Hub panel survey respondents thought that the SA Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if there are available resources (n=5; 100%). The perceived benefits of an ongoing Community of Practice included:

> *"Disseminating useful ideas from those who specialise in chronic pain treatment to those who don't treat it on a fulltime basis."* [Hub panel member survey]
>
> *"Getting chronic non-cancer pain management message out further."* [Hub panel member survey]
>
> *"Further reflection, a safe environment within which to explore the ever-evolving world of chronic pain."* [Hub panel member survey]

> *"Continued support for clinicians servicing this challenging cohort of patients staying abreast of new treatment developments."* [Hub panel member survey]
>
> *"Easy access [to information about best practice pain care]."* [Hub panel member survey]

Perceived enablers to sustaining an ECHO program

Perceived enablers to sustaining the program suggested by Hub panel members included funding, organisational support (e.g., PHNs, SAPMEA, community), administrative support and program champions:

> *"There would need to be funding and organisational support."* [Hub panel member survey]
>
> *"Organisational support e.g., PHNs / SAPMEA."* [Hub panel member survey]
>
> *"Funding - for facilitators, organisational support online resource hub."* [Hub panel member survey]
>
> *"Champions certainly, organisational support which would require funding and an enthusiastic research assistant who might provide a digest of continuing information from the published literature. Perhaps the organisation of some guest speakers and resources for continuing the process. CoPs are excellent in theory, but hard to sustain in practice - a model of revolving responsibility for the organisation of CoP nights if the community are to drive it might be helpful or having the organisation (SAPMEA) drive it – considering multidisciplinary involvement."* [Hub panel member survey]

C. What was the impact of the SA Chronic Pain ECHO Network on implementers (SAPMEA)?

Completion of the SAPMEA online survey

The SAPMEA General Manager who led all aspects of implementing the SA Chronic Pain ECHO Network completed the online survey.

i. Perceptions of the partnership approach to planning, executing, and evaluating

The SAPMEA General Manager valued the partnership approach to the implementation and evaluation of the ECHO program:

> *"We are so pleased to have formed the partnership to run a successful Chronic Pain ECHO program!"* [SAPMEA General Manager]
>
> *"We were able to draw upon a wider pool of knowledge and experience in chronic pain education, ECHO programs and evaluation, for the development and implementation of the Chronic Pain ECHO Program. This helped create a more 'fit for purpose' program and mitigated the risk of mistakes/low quality product by having broad consultation and feedback. We were able to leverage the networks and skills of the partner organisations e.g., for promotion/communication or for the evaluation. Having the partner organisations also brings greater credibility to the program."* [SAPMEA General Manager]

Improvements suggested:

> *"I thought it worked well that the role of the partnering organisations in the co-design was clear at the onset and we had regular planning meetings where everyone was really engaged. For future projects, I think it would be worth scheduling a group meeting half-way through the program for feedback and updates, so that the partners continue to feel engaged in the program during the delivery phase."* [SAPMEA General Manager]

ii. Experience of implementing the program

SAPMEA used their experience as an ECHO hub to implement the SA Chronic Pain ECHO Network. SAPMEA is the first, and currently only, ECHO Hub established in South Australia to deliver the official ECHO model. SAPMEA has established the South Australian ECHO Program with grant funding from Wellbeing SA and contribution from SAPMEA, Adelaide PHN and Country SA PHN.

> *"Through 2022, SAPMEA also ran Neurology, Cardiology, Luminal Gastroenterology, and COPD ECHO Programs. In 2023 we have confirmed Palliative Care, Advanced Dementia and Emergency Medicine ECHO Programs so far."* [SAPMEA General Manager]

SAPMEA has a dedicated ECHO program webpage and individual webpages for each ECHO program. SAPMEA has established networks of health care professionals including GPs and other health care professionals to recruit potential participants to ECHO programs; and established networks of key stakeholders and content experts to identify potential hub panel members and facilitator for ECHO programs.

SAPMEA used their knowledge, processes and procedures, and resources (e.g., staff) involved in implementing other ECHO programs to enable program efficiencies:

> *"Overall, the program was feasible for SAPMEA to implement as we have dedicated staff trained and with experience in the planning, implementation and delivery of ECHO programs. While we were running the Chronic Pain ECHO program, we had 2 other ECHO programs running concurrently so were able to streamline our processes and use of staff time for better efficiency. Having delivered other ECHO programs in the past helped us as we had established existing processes and systems to facilitate the planning and delivery of the ECHO program/sessions and could use learnings and strategies from past sessions."* [SAPMEA General Manager]

Challenges to implementation included not receiving completed case study templates in a timely manner, and needing to adapt the last ECHO session to a Q and A format as there was not a case presenter for that session:

> *"We had over 10 HCPs indicate 'yes' that they had a case they wanted to present for discussion. However, the main challenge was the continual follow-up to get them to complete the template with the case information and send it through to us."* [SAPMEA General Manager]

> *"The only slight change was in the final session, we did not have a case presentation and instead had an open Q&A of outstanding questions submitted by the participants."* [SAPMEA General Manager]

SAPMEA General Manager's advice for other organisations implementing an ECHO program:

> *"To have an appointed staff member as lead for the ECHO program development and delivery; to create your program documentation, schedule and processes before commencement of the program e.g., the session run sheet, schedule for when session reminder emails will be sent prior to each session and when the post-session follow-up email would be sent, draft the email templates for regular emails to participants; to clearly brief your panel and facilitators on what to expect, their role, and the processes/logistics for delivery of the sessions; and to include in your enrolment form a question about whether the participant has a case to present as this gives you a starting point to starting chasing up on cases."* [SAPMEA General Manager]

iii. Whether the ECHO program was considered a 'value-add' compared to other education programs

The SAPMEA General Manager thought that the ECHO model was a 'value-add' compared to other education programs due to the case-based learning, the online format and recording available for future use:

> *"I think the ECHO model is a great value added to the other modalities of education. It provides a unique opportunity for HCPs to present their real-life cases for feedback and discussion. Feedback from participants is that they like*

> *the short and sharp nature of the presentations and that the ECHO sessions are really focused on practical approaches and advice. We regularly had participants of the Chronic Pain ECHO Network dial in while on the bus home from work, while cooking dinner or eating their dinner etc, so the flexibility to join virtually really works for some participants. It's also great that we're able to record the presentations so that they can be an ongoing resource."* [SAPMEA General Manager]

The SAPMEA General Manager thought that the SA Chronic Pain ECHO Network and the ECHO programs could be showcased by SAPMEA:

> *"The ECHO model is still relatively new in South Australia (SAPMEA has been running ECHO since Sept 2021) but already we have had great engagement and uptake from local healthcare professionals. Participation from regional/rural HCPs has been approx. 30% of total registrations, showing that this model is well received by rural practitioners."* [SAPMEA General Manager]

iv. Perceived importance of sustaining the SA Chronic Pain ECHO Network and potential factors to sustaining the program

The SAPMEA General Manager thought that the SA Chronic Pain ECHO Network should be sustained as an ongoing Community of Practice if there are available resources. Some of the benefits reported included: focusing on specific topics in more detail in response to need; advocacy potential of the Community of Practice for example, to advocate for funding for patients from CALD communities living with complex chronic pain, and for greater Medicare-reimbursement for allied health.

Factors perceived as enabling the SA Chronic Pain ECHO Network to be sustained as an ongoing Community of Practice included: Funding and ongoing support from local health agencies (such as SA Health, Primary Health Networks, ReturnToWorkSA, Rural Doctors Workforce Agency), local champions within the specific clinical disciplines, support for communication and promotion through the professional associations (e.g., RACGP, ACRRM, APA, PSA).

D. What was the impact of the SA Chronic Pain ECHO Network on co-commissioners?

Completion of the co-commissioners survey

One representative from each of the commissioner organisations, ReturnToWorkSA and Country SA Primary Health Network, completed the online survey.

i. Perceptions of the partnership approach to planning, executing, and evaluating

Co-commissioners were supportive of the partnership approach and did not think there were any challenges or negative consequences.

> *"[The benefits of the partnership approach] were the expertise around running such a program as well as the broad networks of the larger group."* [Commissioner representative]

ii. Whether the reach of the program met their expectations

The reach of the SA Chronic Pain ECHO Network met the expectations of the co-commissioners.

> *"Yes [the reach of the program met our expectations], particularly the diversity of participants discipline, location and levels of experience."* [Commissioner representative]

> *"It was a great opportunity for GP's and nurses primarily to connect in with peers. It is also heartening to see the high participant rate from our country health workforce and highlights the need for learning opportunities like this to continue."* [Commissioner representative]

iii. Whether the ECHO program was considered a 'value-add' compared to other education programs

Co-commissioners considered the ECHO model as a 'value-add'.

> *"The opportunity for a participant to present a case study following the didactic presentation and have discussions with the group is such a valuable learning opportunity. Also, to have a series of presentations on one broader topic is great too."* [Commissioner representative]

> *"The ECHO Model provided the sharing of case studies and encourages open conversations and a sharing of knowledge, which is often not seen in other forms of training. Access to specialist presenters is also a great offering provided vis ECHO."* [Commissioner representative]

> *"Absolutely [the ECHO program could be showcased by our organisation], we really valued the ECHO model and can see many other topics that could be conducted this way."* [Commissioner representative]

iv. Perceived importance of sustaining the SA Chronic Pain ECHO Network and potential factors to sustaining the program

Co-commissioners thought the SA Chronic Pain ECHO Network should be sustained if there are available resources. The benefits highlighted included:

> *"Ongoing engagement with the network/group"* [Commissioner representative]
>
> *"As with any community, it takes time for establishment of trust and willingness of many to speak freely. A continuation of the ECHO supports this occurring"* [Commissioner representative]

Suggestions for possible formats for an ongoing Community of Practice include:

> *"I would suggest that an ongoing online support group with facilitator would be beneficial that could have regular check ins and then additional didactic sessions with case presentations on a quarterly or less frequent basis."* [Commissioner representative]

Appendix 1: Evaluation questions and theoretical constructs

Evaluation question		Implementation and innovation outcomes of the SA Chronic Pain ECHO Network		Updated CFIR	Associated constructs in relevant theoretical framework(s)
1A	**How was the SA Chronic Pain ECHO Network implemented?**	i.	Governance and planning	➢ Implementation determinants [updated CFIR]	
		ii.	Engaging Hub panel members, facilitator, participants, case presenters and facilitator		
		iii.	Learning Needs Assessments		
		iv.	Delivery of the Chronic Pain ECHO Network: curriculum development, and program activities (10 ECHO sessions and links to further resources)		
		v.	Monitoring and evaluation		
1B	**What were the implementation outcomes of the SA Chronic Pain ECHO Network?**	i.	Reach (at the recipient-level)	➢ Innovation outcomes [updated CFIR]	➢ Participation [Original Moore's seven outcome levels (2009): Level 1 - Moore's Framework - An outcome Framework for Planning and Assessing Continuing Medical Education (CME) Activities. ➢ Reach (recipient-level) (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Penetration (recipient-level) [Implementation Outcome Framework - Proctor]
		ii.	Acceptability and appropriateness (at the setting-level)	➢ Acceptability, appropriateness [Antecedent assessment - updated CFIR]	➢ Acceptability, appropriateness [Implementation Outcome Framework - Proctor]
		iii.	Feasibility	➢ Feasibility [Antecedent assessment - updated CFIR]	➢ Feasibility [Implementation Outcome Framework - Proctor]
		iv.	Fidelity and adaptations	➢ Implementation determinants [updated CFIR]	➢ Fidelity (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Fidelity [Implementation Outcome Framework - Proctor]

Evaluation question		**Implementation and innovation outcomes of the SA Chronic Pain ECHO Network**		**Updated CFIR**	**Associated constructs in relevant theoretical framework(s)**
		v.	Barriers and enablers to implementation	➢ Implementation determinants [Updated CFIR]: I. Innovation domain II. Outer setting domain III. Inner setting domain IV. Individuals domain V. Implementation process domain	
2	**What was the innovation impact of the SA Chronic Pain ECHO Network?**				
A	**What was the innovation impact of the SA Chronic Pain ECHO Network on health care professional participants?**	i.	Satisfaction and relevance	➢ Innovation Outcomes [innovation impact on recipients – updated CFIR]	➢ Satisfaction [Original Moore's seven outcome levels (2009): Level 2] ➢ Reaction (Engagement, relevance, satisfaction) [New World Kirkpatrick Model Level 2- 3] ➢ Learning, competence/confidence, performance [Original Moore's seven outcome levels (2009): Level 3-5] ➢ Learning (Knowledge, skills, attitudes, confidence, commitment), Behaviour [New World Kirkpatrick Model: Level 2- 3] ➢ Effectiveness (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Client Outcomes [Implementation Outcome Framework - Proctor]
		ii.	Whether the ECHO program was considered a 'value-add' compared to other education programs		
		iii.	Perceptions of the mentorship environment		
		iv.	Health care professional support		
		v.	Attitudes towards people experiencing pain and other health professional disciplines involved in pain care		
		vi.	Perceived knowledge and confidence related to best practice pain care aligned to the biopsychosocial model		
		vii.	Intention to change practice, perceived practice change, and perceived quality of care		
		viii.	Perceived multi-level barriers to changing practice		
		ix.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program	➢ Sustainment [Actual implementation outcomes - updated CFIR]	➢ Maintenance (setting-level) (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Sustainability [Implementation Outcome Framework - Proctor]

Evaluation question		Implementation and innovation outcomes of the SA Chronic Pain ECHO Network		Updated CFIR	Associated constructs in relevant theoretical framework(s)
B	**What was the impact of the SA Chronic Pain ECHO Network on ECHO Hub panel members?**	i.	Satisfaction and experience	➢ Innovation Outcomes [innovation impact on recipients – updated CFIR]	
		ii.	Perceptions of the support received to deliver the ECHO sessions		
		iii.	Whether the ECHO program was considered a 'value-add' compared to other education programs		
		iv.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program	➢ Sustainment [Actual implementation outcomes - updated CFIR]	➢ Maintenance (setting-level) (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Sustainability [Implementation Outcome Framework - Proctor]
C	**What was the impact of the SA Chronic Pain ECHO Network on implementers (SAPMEA)?**	i.	Perceptions of the partnership approach to planning, executing, and evaluating	➢ Innovation Outcomes [innovation impact on recipients – updated CFIR]	
		ii.	Experience of implementing the program		
		iii.	Whether the ECHO program was considered a 'value-add' compared to other education programs		
		iv.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program	➢ Sustainment [Actual implementation outcomes - updated CFIR]	➢ Maintenance (setting-level) (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Sustainability [Implementation Outcome Framework - Proctor]
D	**What was the impact of the SA Chronic Pain ECHO Network on co-commissioners?**	i.	Perceptions of the partnership approach to planning, executing, and evaluating	➢ Innovation Outcomes [innovation impact on recipients – updated CFIR]	
		ii.	Whether the reach of the program met their expectations (i.e., overall attendance and attendance per ECHO, and diversity of participants related to range of professional disciplines, practice locations, years in practice, regional health care professionals and health care professionals working in compensable settings)		

Evaluation question		Implementation and innovation outcomes of the SA Chronic Pain ECHO Network		Updated CFIR	Associated constructs in relevant theoretical framework(s)
		iii.	Whether the ECHO program was considered a 'value-add' compared to other education programs		
		iv.	Perceived importance of sustaining the Chronic Pain ECHO Network and potential factors to sustaining the program	➢ Sustainment [Actual implementation outcomes - updated CFIR]	➢ Maintenance (setting-level) (RE-AIM Framework - Reach, effectiveness, Adoption, Implementation, Maintenance) ➢ Sustainability [Implementation Outcome Framework - Proctor]

References for theoretical frameworks

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Appendix 2: Guidance for didactic presentations

Principles of pain care to be highlighted in ECHO didactics, developed by the evaluation team.

Relevance to practice	• Highlight practical strategies that health care professionals can use in their consultations with patients
Work	• Highlight work as part of the journey rather than the final destination ie do not wait until there is no pain before starting a Return To Work plan because there may never be no pain AND by the time patient and clinician realise this there may no longer be any obligation for the employer to help the person come back to work • Highlight that the longer an injured worker remains absent from work the greater is their risk of never returning to work, longer term ill-health and financial insecurity • Highlight that, in general, work is good for long-term health and well-being
A biopsychosocial approach to pain care	• Highlight the importance and evidence-base of the biopsychosocial approach to pain care
Multidisciplinary care	• Highlight multidisciplinary care as the optimal management of chronic pain • Highlight multidisciplinary care as the optimal management of acute and subacute pain to help prevent progression to chronic pain (secondary prevention)
Evidence-based	• Highlight areas where the evidence is strong and areas where the evidence is lacking (related to the diagnosis, management and secondary prevention of chronic pain)
High-value care	• Highlight areas of high-value care (e.g., non-pharmacological self-management approaches) and areas of low-value care (e.g., inappropriate use of spinal imaging and inappropriate prescription of opioids)
Co-ordination of care	• Highlight referral pathways, identify relevant services particularly in regional SA • Highlight HealthPathways as a source of information for referrals
Consumer pain care priorities	• Highlight how health care professionals can address consumer pain care priorities • For more information see below recent research from the Consortium

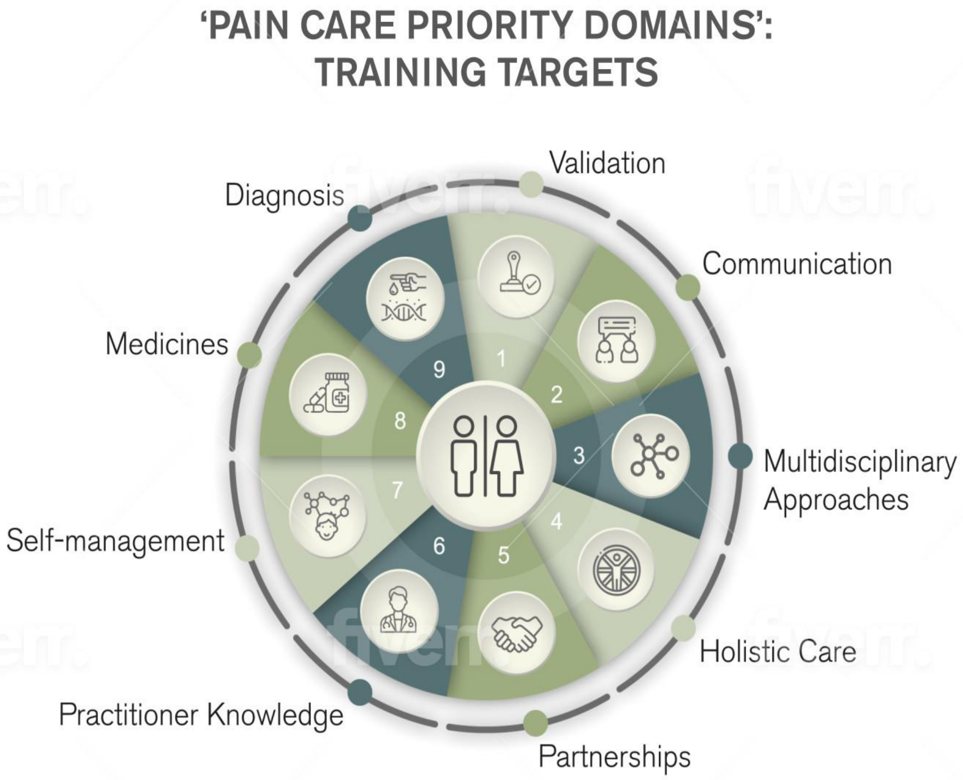
Consumer pain care priorities

Slater H, Jordan JE, O'Sullivan PB, Schütze R, Goucke R, Chua J, Browne A, Horgan B, De Morgan S, Briggs AM. 'Listen to me, learn from me': a priority setting partnership for shaping interdisciplinary pain training to strengthen chronic pain care. Pain. 2022 Apr 6.

Two Australian cohorts were involved in this study: i. people living with chronic pain, and carers and; ii. health professionals involved in the clinical care of people living with chronic pain.

A 'pain care priority' was defined as *'what you think is the most important thing your health professional needs to be able to do to help you manage your chronic pain.*'

Health professionals were also asked to provide a rating of their overall level of agreement with the statement, *'Do you feel that the priorities listed here are a meaningful reflection of the most important things that health professionals need to be able to do to help individuals with chronic pain?'*



The essence of the pain care priorities framework is captured in one priority in particular; *'listen to me, learn from me and hear what I am telling you, so it makes me feel my concerns have been understood'*.

Pain care priorities framework with summative descriptions for each of the nine pain care priority categories

Category	Summative description
Category 1: Validating, acknowledging and respecting each individual person's pain experience	Pain priorities reflect the need for health professionals to validate people's individual pain experiences, most notably acknowledging and believing what a person is telling them about their pain (including their symptoms, history, impact and experiences); respecting their knowledge and lived experience and showing empathy.
Category 2: Communication styles and consultation spaces to ensure safe, respectful and effective communication between health professionals and people living with chronic pain	Priorities focus on communication interactions between health professionals and people living with pain. Communication styles: People living with chronic pain and carers placed importance on health professionals: i) actively listening to hear their concerns; ii) learning from those living with chronic pain; and iii) responding appropriately to indicate their understanding of the impact of pain on the person. In discussing their chronic pain, people wanted health professionals to provide encouragement and hope where possible, give meaningful answers specific to their situation (using simple language), and to be honest with them if they don't have an answer or can't provide a diagnosis or reason for the pain. Communication environments: People living with pain highlighted the importance of health professionals creating a safe consultation space for them to share opinions, ask questions and discuss relevant information without judgement.
Category 3: Multidisciplinary team approach to pain care	Health professionals working together to effectively coordinate care and ensure people living with chronic pain receive the right treatment at the right time is the key priority within this category. This includes timely referrals to medical specialists and allied health professionals to support pain management and functional ability, as well as receiving appropriate support services for mental health.
Category 4: Holistic approach to pain care	People emphasised the importance of health professionals adopting a holistic and tailored care approach that incorporates physical, mental, occupational, social, spiritual and intellectual needs, as well as other health issues when managing chronic pain. It was also highlighted that health professionals need to demonstrate greater understanding of the complex nature of chronic pain.
Category 5: Ensuring genuine partnership approaches in pain care	A genuine partnership approach between health professionals and people living with chronic pain when discussing available treatment options, developing an appropriate management plan and subsequent monitoring was the overarching priority for this category. People stressed the need to consider contextual factors such as financial circumstances, geographic barriers and individual experiences and preferences when discussing pain management options. People living with pain also emphasised the importance of management strategies that supported their independence and focused on their quality of life. Explanations of risks and benefits for both pharmacologic and non-pharmacologic treatments and flexibility with treatment and care plans, rather than a 'one size fits all' approach

Category	**Summative description**
	were also considered important.
Category 6: Knowledge and experience of health professionals to support pain care	People highlighted the critical need for health professionals to be knowledgeable about different types of pain and to able to demonstrate an understanding of why pain can persist. Furthermore, people living with chronic pain advocated for health professionals to be willing to undertake research or consult more broadly across other health disciplines to better understand specific pain conditions, where required/appropriate.
Category 7: Supportive self-management	Key priorities focus on people with chronic pain being supported to self- manage their overall health. Support includes being directed to relevant evidence-based pain management resources (digital and non-digital); being provided with practical strategies applicable to day-to-day living; and, being able to access patient support and advocacy groups.
Category 8: Safe use of medicines in pain care	Accessing medications without stigma; supporting people living with pain in their choice of medication based on their preferences and experience; and prescribing safe medications to assist active participation in day-to-day living were key priorities. Several people with chronic pain also advocated for autonomy to adjust medication dosages based on pain levels.
Category 9: Diagnosis/looking for a cause of pain	The priorities here focus on health professionals providing a clear outline of how a person's chronic pain will be investigated, as well as continuing to seek a diagnosis or reason for pain when tests or scans are inconclusive. People with chronic pain also highlighted the importance of health professionals looking for causes of pain without stigmatising people or being dismissive.