Tele-mentoring trial for Child Health Nurses from rural and remote areas

Final Report

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Tele-mentoring trial for Child Health Nurses from rural and remote areas

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Summary

In contrast to their regional counterparts, many Child Health Nurses (CHNs) working in rural and remote areas are physically isolated from their peers, meaning face-to-face mentoring and informal interactions with peers may not be available. The tele-mentoring trial for CHNs from rural and remote areas explored one possible way to fill this gap. Tele-mentoring was trialled by following five mentor-mentee pairs over a five month period. Mentees were beginner/emerging CHNs living in rural and remote areas, and mentors were experienced CHNs who had, ideally, completed a Queensland Health preceptor program. A combination of quantitative and qualitative data was collected. Pre and post-trial questionnaires were used to capture participant's perceptions about tele-mentoring and if those changed as a result of the trial. Rates of participation, technical issues and their resolution, and general successes and challenges experienced were also recorded.

Findings suggest that tele-mentoring was valued and accepted by both mentees and mentors. Both voiced that this program has assisted them in attaining greater levels of confidence, skill and knowledge that they can transfer into their clinical practice. Mentees reported that it has made a difference knowing there was someone they could go to for peer support, while mentors reported good engagement by mentees and that the mentoring was making a difference.

The trial also revealed challenges to the delivery of an effective and ongoing mentoring program. While valuing such a program, participants did express concerns about finding time for periodic meetings within already busy and time-pressured schedules. Encouragingly, it appears that participants also recognise that mentoring will potentially assist in alleviating busy schedules in the long-term and therefore discussed ideas on how to balance work and mentoring sessions.

The success and associated findings of the tele-mentoring trial has led to three primary recommendations:

1. **A formalised tele-mentoring program.** A more formalised Tele-mentoring program for CHNs working in rural and remote areas should be developed and deployed within Children's Health Queensland.

2. **Flexibility within the tele-mentoring program**. Future tele-mentoring programs should contain flexibility around utilising multiple methods of communication within the mentor-mentee relationship. While tele-health would be the predominant method, influences such as workload demands and issues mean that it is not always practical.

3. **A more detailed trial and evaluation.** Upon the completion of developing a more formalised tele-mentoring program, a further evaluation of it should be conducted, including trialling over a longer duration to better test sustainability and longevity.

Background

Within many professions, including nursing, mentoring provides the ideal conduit for supporting new and beginner practitioners as they transition into their new work environment. Mentoring has been found to assist in developing collegial and sharing relationships, enhancing skill and confidence and knowledge for all stake holders (Mills, et al., 2006; Leggard, Balding & Schiftan, 2015). Further benefits identified include: the mentee's feeling more confident in their clinical decision making; able to make better work/life choices; and more likely to plan their career pathways and undertake additional workplace learning. In addition to this, mentors have been found to have increased job satisfaction, improved communication skills, and were more reflective in their practice. Some organisational benefits included improved workplace harmony and staff communication, lower sick leave and attrition rates, and a general reduction in work place stress and anxiety (Ehrich & Hansford, 2008).

Mentoring is more commonly used in situations where a more experienced clinician supports/mentors a less experienced clinician; this may be formally or informally. Unlike other workplace programs such as clinical supervision, mentoring is a mutually agreeable, flexible and supportive relationship with no specific timeframe or assessments. The mentoring relationship typically phases out as the novice feels more confident and therefore no longer requires the additional support (Mills, et al., 2006). Generally mentoring occurs face-to-face within the work environment however, in some circumstances, this is not always possible. For example, when a clinician is the sole practitioner or has little contact with their other peers as is the case in some rural and remote areas.

In 2014, members of the Queensland Child and Youth Clinical Network raised concerns that beginner child health nurses working in rural and remote areas may be employed at a novice level without having adequate skill or knowledge to perform at a high practitioner level and lack the peer support to guide the learning process. In many regional Child Health Centres, face-to-face mentoring occurs frequently both informally and formally for most new CHNs. In this process an experienced CHN mentor supports and guides the mentee, with support gradually reducing as the mentee's confidence and skill levels increase. Importantly, in contrast to their regional counterparts, many CHNs working in rural and remote areas are physically isolated from their peers, meaning those face-to-face mentoring and informal interactions may not be possible. A potential alternative to bridge this gap is offering mentoring through the use of teleconferencing equipment. While other health professions, such as the Allied Health Team at the Cunningham Centre in Toowoomba, have been offering tele-mentoring support to new Allied Health Clinicians working in rural and remote areas for several years, to date tele-mentoring has not been utilised within the Child Health sector.

The concerns for the potential inadequate support given for CHN working in rural and remote areas prompted further investigation by the Australia College of Children's and Young Peoples Nurses and University of Queensland's Centre for Online Health.

A Researcher was employed to explore tele-mentoring for rural and remote CHNS by interrogating contemporary research and benchmarking existing services across the state. Consultation with key stakeholders such as Universities, National and State wide remote health services was undertaken. The product of the work was the *Project Report and Project Plan: Trial of tele-mentoring support for rural and remote Child Health Nurses in Queensland*. The document provided strong evidence supporting the formal trialling of tele-mentoring for early career CHNs working in rural and remote areas. This Tele-mentoring Trial would involve linking novice CHNs working with experienced CHNs by deploying a mentoring framework and utilising teleconferencing equipment and *Statewide Telehealth Services*. Approval and funding were made available through the Child Health Sub Network, and the intension was that mentoring support would complement and work in partnership with existing professional development programs and supportive networks already in place for new CHNs. The Tele-mentoring Trial was planned to commence in January 2016 and run for a six month period; this included the time required for the project evaluation and the writing up of the project report.

Purpose

The purpose of the Tele-mentoring Trial was to conduct a preliminary investigation into the feasibility of delivering a basic tele-mentoring program to CHNs in rural and remote areas. Given that both tele-mentoring and its delivery via telehealth equipment may have been relatively novel to participating CHNs, the investigation was divided into a number of separate areas. Tele-mentoring was examined with respect to: how useful/effective it was; how accepted it was by participants; and its long-term sustainability. Tele-health (i.e. the video-conferencing method for delivering the mentoring) was examined with respect to: the equipment used, including its availability, suitability for the task, reliability, and how well it was supported; and its long-term sustainability.

Methods

Participants

The trial was undertaken using five mentee-mentor pairs and, due to time constraints, run across a period of five months, starting in January 2016. Mentee and mentors were recruited via expressions of interest being sent to regional and rural hospital health services and child health centres across Queensland. Mentee requirements were: that they were currently working as a CHN; commit to attending at least monthly mentor/mentee meetings; and had sought Line Manager approval. Mentor requirements were: they were currently working as a CHN; be an experienced practitioner, preferably with preceptor training; commit to attending at least monthly mentee/mentor meetings; and had sought Line Manager approval. The basic profiles of each mentee and mentor are detailed in Tables 1 and 2 respectively.

Prior to the commencement of the trial, the mentees, their respective Line Managers, and the mentors signed mentoring agreements (see Appendix 1). The agreements provided clarity around organisational and personnel commitment and expectations within the mentoring relationship. Included in this document was information pertaining to the mentoring trial and data collection schedules and the mentees identified learning goals. Mentees were linked with mentors based upon the premise of matching learning needs with specific mentor experience. An example was one mentee requesting to be linked with a mentor who had significant experience working within Indigenous communities. This mentee was linked with a mentor who had that background. Once paired the mentees were forwarded the contact details of their mentors so they could initiate contact and commence the mentoring process.

Planning included anticipation that not all participants would have pre-existing equipment in place at their location that would be suitable for participation in the trial. *Statewide Telehealth Services* therefore provided the video conferencing equipment (MOVI) and associated set up supports. A total of six MOVIs were provided: two for mentees; three for mentors; and one for the Tele-mentoring Project Officer.

Table 1   Mentee profiles

	Mentee 1	Mentee 2	Mentee 3	Mentee 4	Mentee 5*
CH qualifications	Yes – Post grad. Certificate	Yes – Post grad certificate	No Final semester - Post grad cert.	Yes Post grad. certificate	No
Future qualification plans	-----	-----	Currently enrolled	-----	Plan to enrol
Time in CH role (years)	6.5	6	11 months	2	11 months
CH hours/week worked	28	38	38	14	38
Other professional support received	Contact with two CHSs	Previously had a mentor	Facilitators & nurses at QH Transition Program	Occasional but limited	Work shadowing at tertiary centre
Other nearby CHN support	Yes; 2 f/t & 1 p/t CHNs; all supportive But work alone (different days/location)	Yes; 1 f/t & 2 p/t CHNs	Yes; 4 CHNs; variable support	Yes; supportive	Yes
Pre-existing use of telehealth equipment	Yes - for training	Yes - for meetings	Yes	Yes	Yes
Tele-health equipment present pre-trial	MOVI supplied	MOVI supplied	Yes	Yes	MOVI supplied

*This participant later withdrew from the trial

Table 2 **Mentor profiles**

	Mentor 1*	Mentor 2	Mentor 3	Mentor 4	Mentor 5
CH qualifications	Post grad diploma in Child Health	Hospital based / post grad certificate	Post grad diploma in Child Health	Post grad diploma in Child Health	Hospital based / post grad certificate
Preceptor training	YES	Yes	Yes	Yes	Yes
Mentoring experience	Nursing and TAFE students; immunisation providers	Clinical practice facilitator; new staff mentor	Students on work placements; new staff	Transition to Child Health nurses; preceptors of those nurses; as a mentee in a SBYHN position	Child Health staff; tertiary nursing students; initiated a mentor program
Pre-existing use of telehealth equipment	Yes – appointments with tertiary hospitals	No	Yes - case conferencing	No	Yes - education; assisting client; allied health appointments
Tele-health equipment present pre-trial	MOVI supplied	Yes	Yes	Yes	MOVI supplied

*This participant later withdrew from the trial

Tele-mentoring

Within the context of the trial, mentors were experienced CHNs who were able to provide supportive, commit to the process, and able to form an interactive trusting relationship with their mentee. In this context a problem solving and reflective practice model framework was deployed. Throughout the trial the prime means of communication was through use of teleconferencing equipment, however at times mentoring contact may occur via email or telephone conversations.

To assist in keeping mentoring consistent across the participant group, mentors were required to attend a pre-trial training session and subsequent bi-monthly mentor meetings across the length of the trial. A one-off education session was conducted outlining the principles of reflective practice and clinical supervision. In addition to this, and with the consent from an Allied Health representative from the Cunningham Centre in Toowoomba, the *Allied Health Professional Support Framework Mentoring Guide* (Queensland Health, 2009) was emailed to all mentees and mentors. This framework was chosen because it was specifically designed for tele-mentoring for clinicians working in rural and remote areas and thus had factored in the idiosyncrasies of mentoring with teleconferencing equipment in similar conditions. The *Allied Health Professional Support framework* had also been used for many years so had the benefits of being "tried and tested", and had been modified over the years after considering participant feedback and contemporary opinion. This document was easily transferrable to Child Health nursing as the elements of the program remained similar. It also aided in identifying the challenges and characteristics unique to this type of mentoring. For example: providing tips for "Mentoring Across the Distance" (p. 21); setting agendas; and making the most out of mentoring sessions. Elements of this framework were discussed in the first three mentoring meetings.

Mentee-mentor pairs were expected to conduct at least one one-hour mentoring meeting per month across the length of the trial, with the option of increasing meeting frequency according to personal preference. To ensure clarity and a common commitment from both mentors and mentees, this frequency was included in the mentoring agreement. Mentee/mentor pairs then organised their own meetings according to their availability and work schedule.

Data collection

A combination of quantitative and qualitative data was collected. Pre and post-trial questionnaires via Survey Monkey were used to capture participant's perceptions of their own skill, knowledge and confidence levels as well as teleconferencing skill and knowledge. Some questions were mirrored in pre and post-trial questionnaires so direct comparisons could be made. Mentees and mentors completed slightly different questionnaires. In addition to reporting on their own experiences, mentor questionnaires also captured their perception of the mentees' experiences, confidence and skill sets pre and post-trial. Data was also collected with respect to: rate of participation within the trial; equipment/technical issues that occurred, including issue resolution; general successes and challenges; and any other feedback. Given the relatively small number of participants within the trial, data was analysed with respect to indications of change across time and also general themes.

Results

Participation

Of the five mentee-mentor pairs that were originally recruited, four remained for the full duration of the trial. One mentee/mentor pair withdrew from the trial in March 2016 with the mentee citing heavy work load issues as the reason for withdrawing.

Three out of the four mentee/mentor pairs met more than once a month. Whilst the pairs endeavoured to commit to regular meetings some were interrupted as a result of pre-scheduled annual leave and sick leave.

The pre-trial mentor training session was attended by all four mentors, and the bi-monthly mentor meetings averaged 75% attendance.

Questionnaire ratings

All participants that remained for the duration of the trial completed both the pre and post-trial questionnaires in full. Item responses are presented in Tables 3 and 4 below with respect to the separate areas described in the Purpose section of this report.

Table 3   Questionnaire responses related to tele-mentoring

Item	Pre-trial	Post-trial
1a: Useful / effective		
Mentees		
Overall confidence when working in your Child Health role	1 Very confident in most areas 0 Confident in most areas 3 Confident in some areas	0 Very confident in most areas 2 Confident in most areas 2 Confident in some areas
Confidence in your clinical skills	1 Very confident in most areas 3 Confident in most areas 0 Confident in some areas	1 Very confident in most areas 1 Confident in most areas 2 Confident in some areas
Confidence in accessing Child Health resources	0 Very confident 3 Moderately confident 1 Somewhat confident	3 Very confident 1 Moderately confident 0 Somewhat confident
Amount of new knowledge attained since being involved in the program	n/a	3 A lot 1 A moderate amount 0 A small amount
Amount mentor has assisted in increasing skill, knowledge and confidence	n/a	2 A lot 1 A moderate amount 1 A small amount
Rating of support the mentor provided	n/a	4 Very supportive 0 Moderately supportive 0 Neither supportive or not
Is tele-mentoring beneficial to Child Health Nurses in rural and remote areas?	n/a	4 Yes 0 No

Item	Pre-trial	Post-trial
Mentors		
Overall confidence when working in your Child Health role	1 Very confident in most areas 3 Confident in most areas 0 Confident in some areas	1 Very confident in most areas 2 Confident in most areas 1 Confident in some areas
Confidence in your clinical skills	1 Very confident in most areas 3 Confident in most areas	1 Very confident in most areas 3 Confident in most areas
Confidence in your child health knowledge	1 Very confident 3 Generally confident	0 Very confident 4 Generally confident
Confidence in your mentoring role	1 Very confident in most areas 2 Confident in most areas 1 Confident in some areas	2 Very confident in most areas 2 Confident in most areas 0 Confident in some areas
Mentee's confidence (pre: after session 1)	1 Very confident in most areas 3 Unable to answer	2 Confident in most areas 2 Confident in some areas
Mentee's clinical skill level (pre: after session 1)	0 Very high 1 High 1 Sound 0 Low 2 Unable to answer	1 Very high 2 High 0 Sound 0 Low 1 Unable to answer
Mentee's knowledge (pre: after session 1)	1 Very knowledgeable in most 1 Knowledgeable in most areas 0 Knowledgeable in some areas 2 Unable to answer	0 Very knowledgeable in most 2 Knowledgeable in most areas 1 Knowledgeable in some areas 1 Unable to answer
Has this program improved your skills in accessing child health resources?	n/a	4 Yes 0 No
Amount of new knowledge attained since being involved in the program	n/a	1 A lot 2 A moderate amount 1 A small amount
Is tele-mentoring beneficial to Child Health Nurses in rural and remote areas?	n/a	4 Yes 0 No
1b: Accepted		
Mentees		
Satisfaction with the mentoring program	n/a	4 Very satisfied
Would recommend tele-mentoring?	n/a	4 Yes 0 No
Workplace support for participating in this program	3 Very supportive 1 Moderately supportive	2 Very supportive 2 Moderately supportive
Mentors		
Satisfaction with the mentoring program	n/a	2 Very satisfied 2 Satisfied
Would you recommend tele-mentoring?	n/a	4 Yes 0 No

Item	Pre-trial	Post-trial
Workplace support for participating in this program	2 Very supportive 1 Moderately supportive 1 Mildly supportive	3 Very supportive 0 Moderately supportive 1 Mildly supportive
1c: Sustainable long-term		
Do you think tele-mentoring is sustainable in the long-term?		
Mentees	n/a	4 Yes 0 No
Mentors	n/a	4 Yes 0 No

n/a: not applicable

Table 4   Questionnaire responses related to tele-health equipment

Item	Pre	Post
2a: Equipment		
Mentees		
Confidence in using tele-health equipment	2 Very confident 2 Moderately confident	1 Very confident 3 Moderately confident
Equipment was easy to use	n/a	3 Strongly agree 1 Agree
Equipment was reliable	n/a	3 Strongly agree 1 Agree
Equipment was well supported by Telehealth	n/a	3 Strongly agree 1 Agree
Do you know who your local Telehealth technician(s) are?	unknown	3 Yes 1 No
Mentors		
Confidence in using tele-health equipment	0 Very confident 2 Moderately confident 1 Mildly confident 1 Not at all confident	2 Very confident 1 Moderately confident 1 Mildly confident 0 Not at all confident
Easy to use	n/a	1 Strongly agree 1 Agree 2 Neither
Reliable	n/a	1 Strongly agree 1 Agree 1 Neither 1 Disagree
Well supported by Telehealth	n/a	2 Strongly agree 1 Agree 1 Neither

Item	Pre	Post
Do you know who your local Telehealth technician(s) are?	2 Yes 2 No	4 Yes 0 No
2b: Sustainable long-term		
How often can you see yourself using tele-health equipment again in the future?		
Mentees	n/a	3 Frequently 1 Infrequently 0 I will not use it again
Mentors	n/a	3 Frequently 1 Infrequently 0 I will not use it again

Technical/equipment issues' records

Throughout the trial period, participants kept records of all technical and equipment issues they experienced and whether they were resolved. The number of issues experienced throughout the trial was low. Three of the eight participants experienced no issues at all; three experienced only single issues; and the remaining two experienced two and three issues each. Of the eight issues in total that were recorded across the five months of the trial, only one was not readily resolved by support personal, and this was due to not being able to connect to support services in Brisbane. All issues are presented in Table 5.

Table 5   Technical/equipment issues

ID	Issues	Resolution
2a: Equipment		
Mentee 1	Support needed with initial set up of MOVI for the trial	Support readily received and issue resolved
Mentee 2	Sought support once but unable to connect to Brisbane	Resolved the issue themself
Mentee 3	Nil	n/a
Mentee 4	Nil	n/a
Mentor 1	Required connection support on three separate occasions	Support readily received and issues resolved
Mentor 2	Nil	n/a
Mentor 3	Headphones and microphone not working Session cut out once	Support readily received on both occasions and issues resolved
Mentor 4	One password issue	Support readily received and issue resolved

Note that matching numbers (e.g. Mentee 1 and Mentor 1) does not necessarily mean that the Mentor and Mentee were from the same pair.

One of the mentors had the MOVI installed in a communal office area, the only option due to limited computers and office space availability. The mentor reported that the placement of the MOVI had at times resulted in significant noise pollution during sessions. This was to some degree managed by the mentor's colleagues refraining from using the area (if possible) during sessions.

Qualitative information

The qualitative component of this trial was extracted from the pre and post-trial questionnaires. Whilst many of the questions were formatted in Likert scales, each also had a comment section so participants were able to elaborate on their chosen answers. Rich data was then extracted from these comments and three primary themes were identified:

1. The significance support plays
2. Satisfaction and helpfulness of the program
3. The difference the program has made.

These themes have been used to organise the qualitative information, and are elaborated on in the later discussion.

1. The significance support plays

Mentees

A major theme resonating within this trial was the mentees desire to be and feel supported professionally. To ascertain the supportive value of the program and if it met the mentees expectations, the pre-trial questionnaire enquired about the mentees expectation with regards to the type of support they were hoping to receive from their mentors. All gave brief but very similar descriptions:

> "…*share experiences, advice, build a trusting relationship, listen to me, emotional support, sharing knowledge.*

These are qualities often found in collegial work place relationships, particularly when mentoring. Judging from the post-trial comments it appears that many of the mentees expectations with regards to the type of support they were receiving from their mentors were met. All of the mentees rated their mentors as "*very supportive*".

The following mentee comments reflect this thematic sentiment:

> "*To be honest, I might have packed up and come home a few times except that I was able to talk to my mentor about things… My mentor was always in the back of my mind as someone to talk to about issues I was confused/uncertain about*".

> "*I found the time very valuable for the support that was given to me. … I was given the reassurance that we are practicing with up to date knowledge*…"

> "*Made me aware of the importance of self-care and what was available to help with this*"

"Very encouraging, supportive. No questions were silly questions"

These comments give credence to and illuminate the significant and positive role workplace support plays. The first comment poignantly highlights that for some health professionals, adequate support may play a crucial role in the retention of health professionals working in rural and remote areas. In relation to the acceptance of this tele-mentoring program in their workplace, all mentees reported feeling "very supported" by their Line Managers and colleagues before and during their involvement.

Mentors

An important aspect to consider when rolling out a successful mentoring program appears to be the necessary scaffolding required to adequately support mentors. At the beginning of the trial all mentors reported feeling confident in mentoring in some but not all areas of mentoring. All had completed preceptor training and had previous face-to-face mentoring experience. None of the mentors had had any experience mentoring via teleconferencing equipment and voiced a level uncertainty in their new roles.

"*Tele-mentoring is a new concept for me, although we will get a MOVI", it is not completely face to face and this may be a challenge*…"

When asked would it assist in this role one mentor replied:

"*Framework, literature, models, reviews, professional support."*

To meet these learning and facilitation needs, tele-mentoring resources and educational sessions along with bi-monthly meetings were organised. Post-trial questionnaires enquired as to the level of support the mentors perceived they received in their mentoring role:

"*At the beginning of this program I was unsure of what was expected in this role. However with mentor meetings, and in consultation with and feedback from the mentee I develop confidence in this role.*"

"The mentor meetings were very successful, conversing with other mentors in more metropolitan areas"

"(Project organisers) offered wonderful support and resources. It was very useful".

These post-trial questionnaire responses reflect the crucial role support plays for not only the mentees but also the mentors when setting up a tele-mentoring mentoring program. The combination of support and tele-mentoring experience gained potentially played a major role in the reported higher levels of mentoring confidence and skill at the end of the trial.

2. Satisfaction and helpfulness of the program

Mentees

Together with the mentoring program more than meeting the expectations of the mentees with regards to the level of support provided, similar high levels of participant satisfaction and perceptions of helpfulness of the program existed. All participants reported being *"very satisfied"* with their involvement in the program.

The mentees generally found the sharing of information and the reassurance from their mentors helped improve their confidence and knowledge levels. Another aspect appeared to be the sharing of how and where to access information and resources, such as evidence-based research. Their overall satisfaction with the program was aptly demonstrated in some of the comments made from the mentees:

> *"…loved loved loved it"*

> *"It was all great. I have never done anything like this very beneficial"*

> *"I was given the reassurance that we are practicing with up to date knowledge and I was also appreciated the support towards a positive future with the new model of care that is being implemented"*

When asked if the mentees would recommend the tele-mentoring program to other colleagues all said "*Definitely*". One mentee commented:

> *" Yes ………If you don't have someone to help you make the transition it can all become too lonely and too hard and you go home rather than stay and build you skill set for rural and remote nursing"*

Mentors

All of the mentors reported feeling a great level of satisfaction from being involved in the program. This appeared to transgress across several domains, from the altruistic aspect of sharing and caring with their mentees to making connections and sharing new information with the other mentors. The following comment from one of the mentors emanates this sense of purpose and professional satisfaction:

> "*I derive my greatest satisfaction in this program knowing that I am making a difference in the life of a fellow colleague through connection, sharing and mutual respect"*

The helpfulness of the program appeared to arise from the mentors being put into a position where they needed to reflect upon their own clinical knowledge and skill when in meetings with their mentees, and this appeared to assist in bringing to light their own strengths and challenges:

> *"Mentoring actually helped me develop confidence in my own clinical knowledge (One sometimes doesn't know or appreciate how much one knows until you share it) "*

"…topics discussed always offer a time for self-reflection and opportunity to review currency"

Even at times of adversity, one mentor found positivity and a general sense of achievement in problem solving:

"My skills in Tele-mentoring were zero prior to this program. … This was not as easy as we thought. We persisted and stayed strong with humour, flexibility and determination. Not an overstatement, this was a very trying and frustrating experienced from which we celebrated our successes and accepted out defeats and with good cheer and picking up the telephone".

This mentor had experienced many challenges when trying to communicate using MOVI with the mentee. With persistence, flexibility and a level of resilience, they overcome the many challenges of trying to communicate using teleconferencing technology in an area where internet connections were not ideal.

There was a general consensus that the mentor meetings were helpful, valuable and played intricate role in supporting the mentors in their mentoring role. One mentor commented:

"*The mentoring collegial meetings, with a clinical lead, were essential for developing mentoring skills and forging regional ties with clinical nurse mentors. This lead to sharing clinical knowledge and developing mentoring strategies. These meetings were very much like clinical supervision"*

The mentors particularly found sharing mentoring ideas was valuable, such as how to better encourage mentees to practice reflective thinking skills and nut out what was and what was not working in mentee/mentor sessions.

3. *The difference the program has made*

There was a high and resounding level of support for the mentoring program with all participants strongly advocating for the overall benefits for both mentees and mentors and how the program has made a difference for them. Both reiterated how the program has increased their general clinical knowledge and workplace satisfaction. For the mentees it was having someone to share information with and brain storm ideas. For the mentors benefits appeared to arise from the mentor meetings as well and reflecting and ensuring the information they were giving their mentees was correct. Reaffirming they were practicing with current recommendations.

The following comments reflect what a difference the program has made for these participants;

Two of the mentor's commented:

"I truly believe this program is of great value to isolated clinical child health nurses"

"Examples of what I have gained from this program are :several free online CPD courses that I will take advantage of in my practice; an increase use of my

reflective practice; clearer understanding of research, types of research and critiquing journal articles"

And some of the mentees commented*;*

"… I wasn't confident at all when I began but my confidence has grown"

"…it is an investment for a community and health service"

"I found the time very valuable for the support that was given to me. I work as a part of the Child Health team though in a unique role where you are the sole practitioner and education opportunities are limited. I was given reassurance that we are practicing with up to date knowledge and I also appreciated the support towards a positive future with the new model of care that s being implemented"

All participants reported feeling the Tele-mentoring program was useful, feasible and sustainable in the long-term and, if the correct supports and infrastructures were in place, was a valuable supportive option.

"*Once the project is fully resourced (lap-tops, MOVIs and mentor training), this project would be very cost effective and sustainable in the long term. Then long term benefits for both the mentor and mentee and there for the wider child health service would be significant".*

Discussion

When discussing what was found by the Tele-mentoring Trial, it is firstly important to remember that its purposes were distributed across the areas of tele-mentoring and telehealth equipment. Tele-mentoring was examined with respect to: how useful/effective it was; how accepted it was by participants; and its long-term sustainability. Tele-health (i.e. the video-conferencing method for delivering the mentoring) was examined with respect to: the equipment used, including its availability, suitability for the task, reliability, and how well it was supported; and its long-term sustainability.

Changes in Confidence skill and knowledge

From the tele-mentoring perspective, results provided a number of indications that this type of mentoring program was both useful and effective, and indeed making a difference. The mentors provided similar favourable findings, indicating slight increases in mentee's confidence and clinical skills had occurred across the trial. There was also an indication of a slight increase in their own mentoring confidence; significant amounts of new knowledge attained; and, as per the mentees, strong agreement that tele-mentoring as a support is beneficial to CHNs in rural and remote areas.

In the qualitative responses, the mentee group reported significant amounts of new knowledge attained since joining the program and that the mentors played a significant role in this. They also indicated heightened confidence in accessing child health

resources. When enquiry was made about the mentor's perception of any changes in their mentees, the mentors reported finding it difficult to measure a change in the time frames of the trial. Some also found it difficult to ascertain skill level in their mentees as they could not see their mentor's practice. These comments were shared in the last mentoring session after all the post questionnaires had been completed.

Participation in this program involved promoting and enhancing a lifelong learning ethos as an essential component of their professional development. It was interesting then to ask participants the question had involvement in the program prompted their interest in considering future study. Interestingly, it did appear to illicit some level of consideration with six out of eight participants voicing some interest in possibly enrolling for further study. Four of the participants said they were considering studying; one mentor voiced a significant interest in studying a Master's degree; a mentee was considering studying to become a lactation consultant; and the other three participants were considering further study but unsure in what area.

Changes in Support

To assist in determining if the tele-mentoring was meeting some of the needs of the mentees workplace support pre and post questionnaires were mirrored to allow for direct comparisons. The mentee pre-trial questionnaire illuminated a general level of disappointment from most of the mentees with regards to the level of initial workplace support. Two of the mentees rated being "*somewhat dissatisfied*" with the level of support they were receiving. Another mentee was "*neither satisfied nor dissatisfied*" but added a comment that alluded to some level of dissatisfaction; "*withholding of information and lack of teaching is disappointing in my current position*". The other mentee reported being "*satisfied*" with the level of support provided but added "*keeping abreast of current evidence based knowledge is difficult*". This indicates that this person was having problems attaining or accessing new workplace information. Whilst this mentee worked in a team, team members rarely saw each other as they worked on different days and visited different remote areas.

The comparative post-trial findings indicate being involved in the program altered perceptions of the level of support being received. All reported as receiving *"A lot"* of support from their mentors and that this made a big difference for them and how they managed on a day-to-day basis. For example, one of the mentees reported that mentoring helped with problem solving and aided in alleviating some of the burden through discussing difficult issues. One mentee even made the comment that without the mentor they were considering leaving their job. There was a general consensus that tele-mentoring as a support was indeed beneficial to CHNs in rural and remote areas.

With regards to the level of support and resources provided by the Tele-mentoring Trial organisers, three mentors reported feeling a high level of support and one mentor rated the level of support as moderate. The person that reported that they felt moderately supported but did not elaborate on how the support could have been improved. All commented they found the mentoring information sessions as an invaluable element in the preparedness for their mentoring role as well as assistance in developing and enhancing their mentoring confidence and skill. All of the mentors reported having

gained some additional knowledge and confidence through the sharing of information and resources at the sessions.

Accepted and sustainable

In close connection with usefulness and effectiveness was that the tele-mentoring program appeared to be well accepted by both mentees and mentors. All participants responded that they were either satisfied or very satisfied with the program and that they would recommend tele-mentoring to others. Encouragingly, as mentioned above, it appeared that participant workplaces grew in supportive across the duration of the trial. Such a finding of a longitudinal nature then carried nicely into the sustainability aspect of tele-mentoring where preliminary indications are that such a program is sustainable. All participants were of the (post-trial) opinion that the program was sustainable in the long-term, a result validated by most participants being actively involved in the trial for its full length. That much of that involvement was occurring in addition to challenging workloads of substantive roles points to a program that was highly valued, meeting a genuine need, and making an appreciable difference.

For tele-mentoring to be sustainable it requires sufficient support organisational support from the key stakeholders, in particular Line Managers. From the comments made by the mentors, there appeared to be a variation in the level of support offered by their Line Managers prior to the program commencing. Two mentors rated their Line Manager as *very supportive;* one rated theirs as *moderately supportive;* and one as *mildly supportive.* The main concerns voiced appeared to be around how workload and mentoring commitments would be balanced. Interestingly, Line Manager support appeared to increase by the end of the trial with three out of four of the mentors feeling *very supported*, and only one felt *mildly supported.*

Teleconferencing equipment and resources

In conjunction with the investigation into tele-mentoring was the examination of the telehealth equipment perspective. There firstly appeared to be a high rate of pre-existing suitable equipment at the participant's locations. When combined with most participants reporting solid pre-existing equipment skill, the suggestion is that widespread adoption of such a program with existing resources is likely viable. When looking at functionality, the equipment used and the associated supports appear very well suited to the task. Rates of technical issues were low across the length of the trial and on the occasions that issues occurred, support personal were nearly always readily available and able to achieve resolution in a very timely manner. In conjunction with the issues logs, staff reports of satisfaction with equipment ease-of-use and reliability, and their growing confidence in its use over time, provided a consistent story in favour of this medium for delivering mentoring services. Additionally, nearly all participants concluded the trial with knowing who their local Telehealth technicians were, and 75% of them indicated that they could see themselves frequently using tele-health equipment in the future.

There was one other interesting constructive criticism made about the availability of certain types of equipment. One participant made a comment related to the future possibility of providing a laptop in addition to MOVI equipment. For the trial, this

participant had a MOVI installed into a communal workplace area due to the limited available computers and rooms within that workplace. They commented that allowing for the provision a laptop would have made tele-mentoring sessions easier and quieter. Suitability of workplace environment for conducting teleconferencing is indeed an important consideration for the future installations.

Limitations

Indications drawn from this trial do need to be tempered by a number of limitations. The trial was conducted with a very small number of participants, constraining the CHN representativeness of the trial group and therefore warranting consideration when looking at the generalisability of findings. In conjunction with this was the relatively small trial duration which at trial's end was five months. A key element of the trial was investigating the mentoring program's sustainability in the long-term, and this duration may have limited the investigation to providing more early indications of sustainability rather than solid findings. Ultimately, it is important to remember that both the final participant number and trial duration occurred in accordance with the original project planning, where size and duration were predominantly determined by the amount of resources available. Therefore, while each are indeed a type of limitation, their being predetermined parameters of the trial reflects more on an investigation of a preliminary/pilot nature rather than a more comprehensive one that has been limited.

A potential limitation that was identified during the course of the trial by the participants was their demanding concurrent workloads. Busy workloads meant that from time to time some scheduled meeting and mentoring sessions were shortened or postponed. While this was limiting to a degree on the actual delivery of the program, it also presented as an interesting finding within the trial. Mentoring programs appear to useful and valued however their design and delivery clearly need to take into consideration that CHNs have busy, demanding and challenging roles. Prior to commencing the trial, all of the participants raised concerns about how workload issues may impact on scheduling and attendance of mentee/mentor meetings. In the post-trial questionnaire, the issue around balancing work and mentee/mentor sessions was not as prominent. The role of planning and pre-booking mentee/mentor meetings may have assisted in alleviating this concern, and would be an interesting inclusion in future investigations.

One of the factors identified as impacting on the organising and scheduling of the mentee/mentor meetings was the time of the year the program was commenced. One mentor commented it was difficult starting a program in early January: "*I would recommend the program commencing later in the year perhaps March or April*". This person's mentee had taken holidays in the January period meaning there was a delay in contacting and commencing mentee/mentor meetings. From a Project Officer perspective, trying to organise and collaborate with all key stakeholders was challenging as many staff took annual leave over the Christmas holidays.

Lastly, some participants made the interesting point that receiving any type of mentoring support, such as that within the trial, was better than nothing. Participants had also reported support for early career nurses can sometimes be mixed and inconsistent, and that practices in professional development, such as sharing of information, is often variable from site to site. While being valuable insights to take away from the trial, these points do indicate that favourable findings are, as yet, not

necessarily a reflection of a *quality* mentoring program. They are however a further reminder of the somewhat preliminary/pilot nature of the current trial, and would be useful in guiding future more thorough investigations.

Conclusion & Recommendations

While the tele-mentoring and telehealth equipment findings present the collective tele-mentoring program in a largely favourable light, the trial has also revealed challenges to the effective and ongoing delivery of such a program. While valuing the program, participants did express concerns about finding time for periodic meetings within already busy and time-pressured schedules. This was in fact a significant contributor behind the only participant to withdraw from the trial. Encouragingly, it appeared that participants also recognised that mentoring will potentially assist in alleviating busy schedules in the long-term and therefore discussed ideas on how to balance work and mentoring sessions. Flexibility of session delivery drew particular attention, with tele-health being seen as not a sole line of communication but rather the predominant option supported on occasion by phone calls and emails.

Overall, the trial has delivered solid indications that tele-mentoring for CHNs working in rural and remote areas is an effective, accepted and viable avenue for provision of professional support and development. Mentees reported that it has made a difference knowing there is someone they can go to for peer support, while mentors reported that a formalised program carried the additional benefit of mentor peer group sessions that were particularly informative and productive with respect to sharing ideas, challenges, and discussion that ultimately add to the quality of mentoring delivered. The support provided appeared highly valued by staff, an outcome that was particularly well reflected in some participants planning to continue their mentoring connections after the trial's conclusion. Additionally, telehealth equipment and services appeared very well suited to such a program, with participants comfortable with the technology and technical issues both minimal in number and readily resolved. While limitations did exist around the size of some trial parameters and therefore what could ultimately be drawn from the findings, these were largely part of the preliminary/pilot nature of this work rather than problematic issues.

The success and associated findings of the Tele-mentoring Trial has led to three primary recommendations:

1. **A formalised tele-mentoring program.** A more formalised tele-mentoring program for CHNs working in rural and remote areas should be developed and deployed within Children's Health Queensland.

2. **Flexibility within the tele-mentoring program**. Future tele-mentoring programs should contain flexibility around utilising multiple methods of communication within the mentor-mentee relationship. While tele-health would be the predominant method, influences such as workload demands and issues mean that it is not always practical.

3. **A more detailed trial and evaluation.** Upon the completion of developing a more formalised tele-mentoring program, a further evaluation of it should be conducted, including trialling over a longer duration to better test sustainability and longevity.

Appendices

1   Mentoring agreement

Mentoring Agreement

Mentee name

Mentor name

We enter into this agreement voluntarily with the understanding it will be mutually beneficial. If either party is unable to attend a scheduled meeting the mentee/mentor will be informed and meeting reschedule for a mutually convenient time. If either party requests to terminate this mentoring agreement, the project officer and line manager will be informed so alternative arrangements can be made. This mentor/mentee relationship has been endorsed by the line managers of both parties.

Goals of Mentee

1..
 ....
 ....
2.
 ....
 ....
 ....

3.
 ....
 ....
 ....

Method of contact

Dates of Meetings

1.	7.
2.	8.
3.	9.
4.	10.
5.	11.
6.	12.

Review date

Signed

Mentee	Date
Mentee line manager	Date
Mentor	Date
Mentor line manager	Date

Abbreviations

CHN	Child Health Nurse
HHS	Hospital and Health Service

Glossary

Telehealth	Statewide Telehealth Services: The unit within Queensland Health
tele-health	The general term

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