

# Research Report

**What are the factors that contribute to quality and competence in using video virtual care by allied health professionals in a rural, regional and remote settings.**

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## ABSTRACT

Despite a rapid adoption of video virtual care during COVID 19, the rate of providing video virtual care has in many cases declined for allied health. Video virtual care has proven benefits for a broad range of allied health interventions; has acceptance by health consumers as a valid means to deliver health services and has the potential to provide more equitable and timely services to people in rural, regional and remote NSW. In order to encourage allied health to provide service we need to know what a quality intervention looks like.

**Objective:** The study provides insights into factors that provide a quality experience when conducting video virtual care with clients and what is required for current and future competencies.

**Methods:** This mixed methods study surveyed allied health professionals across rural, regional and remote areas in NSW Health. The survey questions were guided by evidence in the literature. Focus groups were then conducted to gain further insights into the findings of the survey. Donabedian has provided a framework to analyse the factors which contribute to quality and competence when using video virtual care.

**Results:** Seventy-four (74) allied health professionals participated in the survey and of these eight (8) participated in the focus groups. Most respondents were experienced clinicians with 82 % (n=61) having worked for 6 or more years as an allied health clinician. The largest allied health profession represented in the survey were speech pathologists (n=20), physiotherapists (n=18) and dieticians (n=13). Use of video virtual care by allied health clinicians was most usually monthly or less often (n=54).

Overall allied health were positive that they were able to be responsive to individual patients, but they were not positive that they were providing best practice in their video virtual care intervention. Tests and outcomes measures were being modified to suit the virtual health environment and there was no set process to determine the digital or health literacy of the clients.

**Conclusion:** A key recommendation is that in order for allied health to have quality outcomes and feel competent in video virtual care, we need to get the structure of the intervention correct first and this is related to having pre assessment trial runs which assist with the set-up of the video virtual care for both clients as well as the clinician. Competence was similarly linked to these factors. A means to gauge health and digital literacy, as well as having resources and assessments appropriate for video virtual care were also important.

## INTRODUCTION

Conducting allied health intervention via virtual care is no longer a question of why or whether, but how allied health clinicians can provide quality interventions using virtual care.

Video virtual care has proven benefits for a broad range of allied health interventions; it has acceptance by health consumers as a valid means to deliver health services and it has the potential to provide more equitable services to people in rural, regional and remote NSW. Video virtual care or telehealth have been demonstrated to provide quality intervention in a broad range of areas (1), including online counselling (2) cardiac rehabilitation (3) paediatric therapy (4,5) and palliative care (6). Client satisfaction with Virtual Care has been demonstrated in a number of studies, including with Aboriginal and Torres Strait islander people (7) and with Culturally and Linguistically Diverse (CALD) communities (8).

While challenges persist, virtual care has the potential to address barriers around access to health care caused by geographical, transport, physical and social barriers (8). For many in rural, regional and remote areas virtual care may be the only opportunity to access allied health care. Families who live in rural areas are more likely to have difficulties accessing specialists than major cities, despite the total disease burden in rural areas being higher (9).

There are significant opportunities ahead for the NSW Health system to achieve its vision including care in the home through virtual health services (10). Video virtual care has the potential to provide more equitable services to people in rural NSW, such as a reduction in financial cost to patients of attending hospital appointments, thereby reducing transport difficulties (Chelberg et al., 2022). That is not to say it is without challenges for some populations (aged, rural and those low socioeconomic status of the United Kingdom) (12)

Despite a rapid adoption of video virtual care during COVID 19, the rate of providing video virtual care has in many cases declined for allied health. Health system performance reports from NSW Health record the progress of virtual care. Virtual care statistics including audio, video as well as emails have been combined since the 2021 reporting. Overall, non-admitted services provided through virtual care in NSW Health was 20.6% of occasions during 2021/2022, 17% in 2022/2023 and 16.5% in 2023/2024 (13). Determining the breakdown between video and audio calls is recorded at local LHD level. SNSWLHD Integrated Care and Allied health Platform for Reporting Insights and Strategic Measures (PRISM) data demonstrates that overall video virtual has shown modest decline since a peak in 2021/2022 (14). In order to encourage allied health to provide service, allied health need to know what a quality service looks like.

There is documentation on why the uptake of virtual care has not been maintained or grown post Covid 19, but not how to bridge this gap. In a recent study investigating allied health professionals' adaptation to virtual care during COVID-19, only 50% of therapists indicated they would continue to use virtual care as a therapy platform (15). While Castle saw this as a positive outcome (15) it also indicates a reluctance by 50% of the allied health professionals.

There is evidence in the literature to explain this reluctance. Castle (2022) found that Telehealth assessments were generally considered to be less organic and holistic than face to face appointments and possibly lost some incidental information gained during face-to-face interactions. Some equipment was not available in the home which caused frustration, limiting satisfaction by allied health with the quality of the service being provided at home (15). Eddison (12) explored telehealth barriers for allied health and found that allied health didn't feel the patients received an optimum service via telehealth, and that the allied health gained job satisfaction from having face-to-face contact with patients, reporting a change to telehealth as a challenge to their relationship (12). Paul discussed that clinicians felt that virtual care was not beneficial for some patient groups including older people, people with disabilities including intellectual or physical or those with balance problems as a reason for presenting but was more

suited to those with good health literacy and had an established in-person relationship with the therapists (16).

In a study of physiotherapists and exercise physiologists who provided virtual care during Covid19, clinicians reported high levels of confidence for conducting virtual care assessments and intervention (16). However, therapists needed to adapt virtual care to the home environment, for example walking in the kitchen with something always available to hold onto, and both professional expertise and a willingness to be flexible in their approach to work (16).

NSW Health has defined virtual care as “any interaction between a patient and clinician, or between clinicians, occurring remotely with the use of information technologies” (Clinical Excellence Commission, 2022, p.4). Embedding safety and quality systems into virtual care health service is essential for NSW Health to provide care that is safe, reliable and person-centred (Clinical Excellence Commission, 2022) and should align with the National Safety and Quality Health Service Standards (NSQHS) (18). Additionally, NSW Health staff have a responsibility to provide culturally safe health services and work environments to Aboriginal patients (19).

A comprehensive review of the literature into curriculum intervention and pedagogical approaches for virtual care concluded that “little was known about the expected values, behaviours and skills required of clinicians for virtual care preparation and practice, or the necessary education guidelines, frameworks and resources for building the confidence and capability of the workforce” (20). The lack of specific frameworks may be one of the reasons that have delayed the adoption of video virtual care (21).

Providing quality care is a priority and establishing competencies may provide a pathway to delivering this level of care. What competencies to deliver quality care via video virtual care specifically may entail for allied health is unclear. Specific pathways exist for cardiac rehabilitation and diabetes counselling (22); ensuring systems for governing (20); developing protocols for virtual care and determining triage standards, knowledge, and application of technical skills (23); effective communication, confidential, culturally safe and ethical practice (24); and clinical communication (20). While these are all valid, multiple papers support that we do not yet know the skills and competencies required in order to provide quality allied health video virtual care (20,25–27).

In order to encourage allied health to adopt and implement video virtual care for clients in rural, regional and remote health, we need to know what a quality service looks like. It is not yet established what makes virtual care a quality service as perceived by allied health professionals, and this research seeks to find this out. What we do know is that allied health clinicians feel more confident when supported by tertiary specialist services (5); that regular use may lead to clinician confidence in communication and technical skills for delivering virtual care (16); that quality in virtual care requires validity of assessments, for example, elbow or shoulder pathology inclusive of special orthopaedic tests and strength (28) as well as remote monitoring and standardised tools (29). Additionally, clear expectations and goals for therapy as well as different tools in their “clinical toolbox” are needed (16). We also know that a hybrid model of face to face and virtual care may be more suitable for quality in person initial assessments, as establishing rapport is essential for remote sessions” (30).

Therefore, this study, conducted in conjunction with the Health Education and Training Institute (HETI) Rural Research Capacity Building Program, was conducted to gain insights into what factors improve quality and competence in using video call virtual care by allied health professionals in rural, regional and remote settings.

## AIM

The study aimed to understand the perspectives of allied health clinicians on factors that provide a quality experience when conducting video virtual care with clients and what is required for current and future competencies.

## METHOD

This mixed methods study used an exploratory sequential (quantitative then qualitative) mixed-methods design (31), to survey allied health professionals across rural, regional and remote areas in NSW Health. Following the completion of the survey, the researchers then gained further insights from the survey by conducting two focus groups which further explored themes identified in the survey.

A custom survey was created (Appendix 2). The survey questions were guided by evidence in the literature on quality in virtual care. The Donabedian constructs on quality have been used as a theoretical basis for defining a quality intervention, where quality can be broken into three domains of *Structure*, *Process* and *Outcome*. Structure refers to the physical and organisational characteristic where healthcare occurs; Process, being the focus on health care delivered to the patient such as treatment and service; and Outcome being the effect of the healthcare on the patient (32). Further questions incorporated direct reference to an evaluation of the Virtual Rural Generalist Service by Western NSW Local Health District and the University of Sydney (33).

Video virtual care was chosen as the literature supports that it provides a richer interaction environment and more objective monitoring and interactions due to the ability to provide objective visual feedback and intervention. The literature supports that video consultations as compared to just audio virtual care appear to provide equal or better clinical outcomes and for certain disabilities are more clinically effective (34).

The survey was piloted by allied health in the Illawarra Shoalhaven Local Health District (LHD) of NSW, a neighbouring district from which staff were not eligible to participate in the study. Following piloting the survey was refined and finalised.

**Survey and focus group participants** were allied health professionals employed in the public sector and drawn from the rural and regional LHDs of Far West LHD, Hunter New England LHD, Mid North Coast LHD, Murrumbidgee LHD, Northern NSW LHD, Southern NSW LHD, and Western NSW LHD. Allied Health professions included but were not limited to allied health assistants, dietitians, exercise physiologists, occupational therapists, pharmacists, physiotherapists, psychologists, social workers, speech pathologists and radiographers.

The survey was estimated to have reached around 1000 allied health staff. However, as the use of video calls to provide virtual care by allied health is not universal, representing only up to 2 % of virtual care services in some areas (14), the eligible population and as a result actual response rate was not able to be calculated. Seventy-four allied health professionals participated in the survey and of these eight participated in the focus groups.

**Recruitment:** An invitation to participate in the survey was forwarded to allied health clinicians by the Director of Allied Health at each included LHD, having agreed for their staff to voluntarily participate in the research study.

Recruitment to the study was via email, inviting voluntary participation to the survey and included a participant information sheet attached to the body of the email. The survey was anonymous and confidential but did identify years of experience as well as profession of the participants. Participants indicated their consent by completing and submitting the survey. This consent process was clearly explained in the participant information sheet at the commencement of the survey. Participants were invited to participate in the focus groups at the time of the survey by sending an expression of interest via email following closure of the survey. Signed consent to participate in focus groups, including video recording was obtained prior to participation in the focus groups.

**Data collection:** Participants were directed to a secure survey using QARS (Quality Audit Reporting System) located on a secure network in the Southern NSW LHD, managed by the NSW Health Clinical

Excellence Commission. QARS is accessible across all NSW Health LHDs. The survey was open from November 2024 - March 2025.

Data collected included basic demographics including number of years working as well as allied health profession. Two focus groups were conducted via MS Teams using a NSW Health account and digitally recorded, during February and March 2025. Focus group questions (Appendix 3) were designed based on the responses from the survey and organised and facilitated by the principal investigator (ML). The same questions were asked in each focus group.

The focus group facilitator (ML) took field notes during and immediately after the conclusion of the focus groups. The MS teams transcribe function was used and the recordings checked to ensure verbatim transcription. Participants were offered the opportunity to request a copy of the transcript from the focus groups if desired. The transcripts were then analysed to provide more in-depth answers to the survey results. All data was then deidentified before being shared with the research team.

Recording and data was stored electronically on a password protected network drive accessible to the facilitator until the transcript had been checked for accuracy by the facilitator, after which time the audio and video files were deleted.

Participants were not reimbursed for participation, however, the survey questionnaire and focus groups were conducted in work hours. Participants were advised to seek approval from their manager prior to participation in focus groups. All participants of the focus groups provided written consent.

**Data Analysis:** Quantitative data from the survey was extracted from QARS into Microsoft Excel and primary analysis completed by the principal investigator (ML) who grouped the results of the questionnaire and focus groups according to the Donabedian categories of *structure*, *process* and *outcome* (Donabedian, 1988). The results were presented in tabulation as well as graphical forms such as bar or pie charts as appropriate. The three researchers then had preliminary discussions about the concepts that required further exploration before the focus groups questions were designed. Once the focus group transcripts were combined and deidentified, qualitative data analysis was conducted using thematic analysis, focusing on identifying frequencies of recurring words and subjects using content analysis until saturation is reached (31,35,36). Coding was conducted by the principal investigator and codes were compared against the deidentified transcript by the co-researchers to ensure veracity of the derived codes and subsequent themes.

**Ethics approval** was received from the Greater Western Human Research Ethics Committee (ref 2024/ETH01347).

## RESULTS

### Structure

Using Donabedian category of *structure*, the responses were grouped according to those which referred to assessing the ability to use, the safety aspects and establishing the set-up of video virtual care.

In regard to the workspace when providing video virtual care 75% (n=56) of allied health survey respondents were providing video virtual care in a separate office and a little over a third were providing video virtual care at a desk with other workers. Most used a microphone and headset, and nearly all had access to a camera.

Reflective listening assessments at the beginning or before a virtual care intervention to gauge the health literacy of your patients was not conducted by most (82%, n=61) of respondents.

Respondents gauged the health literacy of patients through informal observation (18%, n=13), “Teach Back” techniques (16%, n=12) and via conversation (30%, n=22).

Further exploration of health or digital literacy in the focus groups was undertaken. Few focus group participants were undertaking this process and so one particular participant discussed her experience of running successful rehabilitation groups online and the comprehensive screening process that was in place to facilitate successful participation. Other focus group participants were in agreement and keen to adopt this process.

*“I think .... making sure that everything's been well explained and everything's been... trialled before the appointment, because we run groups as well. It's really important to make sure everything's well set up because ... if they all have problems at once, it's really difficult to sort out”* (Participant 1, Physiotherapist).

Where a screening process was in place, this assisted to determine appropriateness and risks, while also helping allied health clinicians to determine whether a face-to-face appointment was more appropriate. Focus group participants preferred a pre assessment trial run, with approaches that varied from a telephone interview to a home visit to set up equipment and a suitable space for video virtual care.

*“A comprehensive initial assessment is really important before any treatment is to happen because ...you're able to set up...the expectations of what they want to get out of the sessions and ...any concerns that they have prior to anything starting, ...that's probably the main tools to make it effective”* (Participant 1, Physiotherapist).

Safety aspects were not explored as part of this survey but were mentioned in the focus groups as an important component of set up and structure.

*“There's also a safety discussion around a safety plan. ‘Who will be home when you're going to be doing this? ..How does someone get in your house if we need to call an ambulance?’ So ... I'm able to .... know that they're going to be safe”* (Participant 1, Physiotherapist).

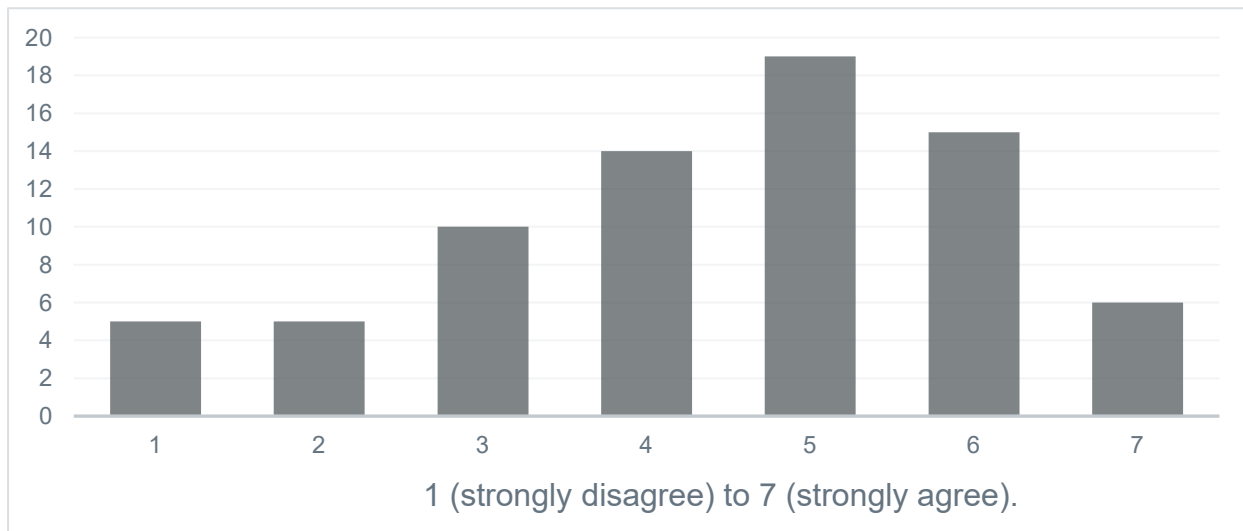
## Process

Using Donabedian category of *process*, the researcher grouped responses to questions that refer to the intervention offered over video virtual care including best practice allied health interventions and tools, as well as creating effective relationships with clients.

Set up and explanation to patients to begin the session was indicated by respondents as a factor that makes their video virtual care session an effective intervention (67.6%, n=50). About a third of the respondents also reported that having a set list of things to do on the day and having engaging tools such as games or visual prompts (such as a game sheet, videos, or photos) make video virtual care effective.

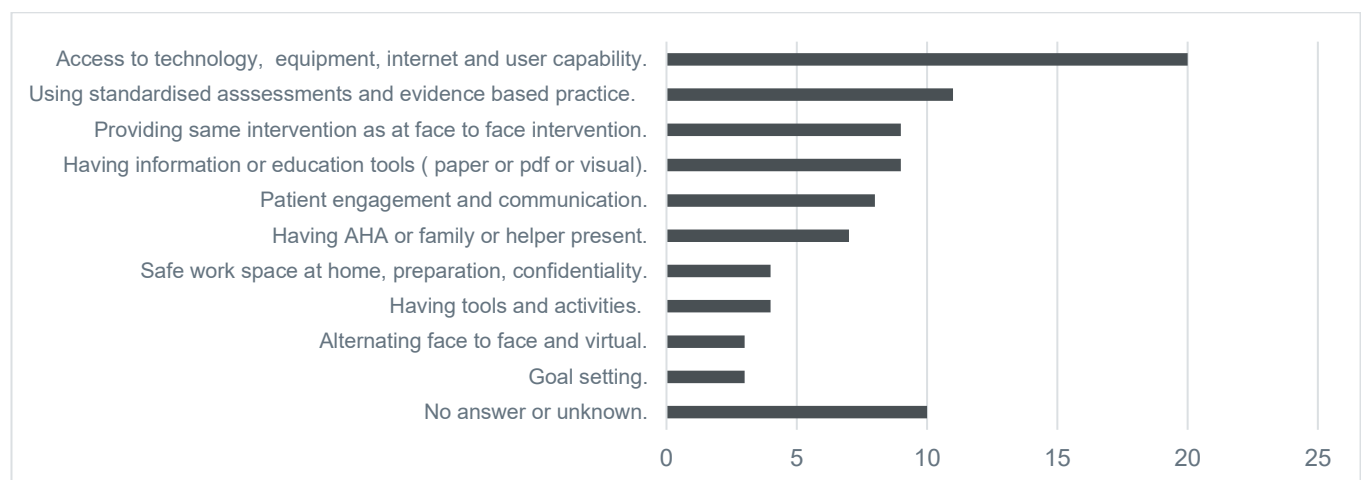
Having effective interventions was further explored in the focus groups and again the importance of set up was clarified by a participant:

*“It's a new skill every time. So, I think often the focus is on the technical side of the appointment as opposed to the content”* (Participant 4, Occupational Therapist).



**FIGURE 1:** Allied Health feel that they are able to provide best practice (N = 74).

As shown in Figure 1, when respondents were asked about their ability to provide best practice intervention, over 58 % (n=43) could be said to be ambivalent that they are able to provide best practice video virtual care, scoring 3,4,5, on a Likert scale of 1-7 where 1 was strongly disagree and 7 was strongly agree. Of these 19 % (n=14) neither agreed nor disagreed. A total of 27% (n=20) of respondents reported a negative score of 1,2,3, where 1 was strongly disagreed that they could provide best practice intervention via video virtual care. Less of the participants felt that they were generally positive about providing best practice intervention via video virtual care (54 %, n=40)



**FIGURE 2:** Factors that help allied health align video virtual care with currently accepted best practice (N=88).

As shown in Figure 2, when using video virtual care the factors suggested by allied health in an open ended question as helping allied health align video virtual care with currently accepted best practice were access and user capability to technology, equipment and the internet, suggested by 23.8% (n=20/84), followed by using standardised assessments and evidence-based practice (13%, n=11/84); having information or education tools available in paper or visual formats (10.7%, n=84); or providing same intervention as at face to face intervention (10.7% n=9).

Most clinicians were adjusting tests and outcome measures to suit to the video virtual care environment, with 61% (n=45) reporting “sometimes” and 12 % (n=9) reporting “always”. The most common

adaptation was to miss sections of the test due to safety and other concerns, or use a carer, allied health assistant or nurse to assist perform the test. Some allied health modified the tests to use the patients home environment or the patients home equipment. Providing visual cues on screen or sending pictures home was also suggested. An alternative was to provide assessments at face-to-face meetings, rather than in video virtual care.

Comments offered in the survey included:

*“changing equipment furniture to suit environment”*

*“I only select assessment tools that are conversation based; I would arrange a face-to-face assessment if further physical assessment is needed”.*

Assessments and resources that are designed or validated for Aboriginal and Torres Strait Islanders, including Aboriginal specific or Easy Read fact sheets and/or Aboriginal specific resource sites were generally not available with 74.3% (n=55) of respondents reporting “no”. Similarly, assessments and resources designed or validated for culturally and linguistically diverse populations, including Easy Read or translated options or the use of interpreters, were reported as not being provided by 73% (n=54) of respondents.

Respondents cited a lack of availability as a reason these were not provided, identifying as a comment in the survey that this is *“definitely an area that could use a lot of work”*. Participants stated they did *“provide assessments via virtual care to both Aboriginal and Torres Strait Islanders and CALD [Culturally and Linguistically Diverse] populations but don’t have any validated resources”*.

A list of assessments suggested by allied health clinicians is provided as Appendix 1.

When these questions about *Process* were further explored in the focus groups, five subthemes emerged: assistance to the patients to participate in virtual care (be it from care giver, allied health assistant or technician); ability to see their home/pets/conversation starters; Having resources ready to share with the patients: having patient goals; as well as the ability to alternate video virtual care and face to face appointments.

Participants described what assistance might be provided to assist patients. These included having a family member or carer on hand to provide physical assistance, interact with the patient or provide technical assistance.

*“We can set up a play interaction for a toddler with their parent. So instead of like playing with the strange lady and the strange clinic with the strange toys we’re playing at home with mum and dad with our favourite toy”* (Participant 7, Speech Pathologist).

*“So having someone there to... turn the volume up... can be helpful. They can also help ...by picking up the patient’s box of medicines and then putting them to the camera so that you can see it. Sometimes we also will give a family member a call, .... so, they can be a part of it”* (Participant 6, Pharmacist).

Participants of the focus groups were keen to highlight the importance of being able to see a patient’s own home in virtual care as an important part of allied health intervention.

*“I could talk about that all day...seeing clients...own bathtub, own shower...if we then go out to see the client or an allied health assistant goes out, we can actually send out much more accurate equipment because we’ve seen it and we’ve seen them. So, reducing the number of home visits”* (Participant 8, Occupational Therapist).

The importance of goal setting was discussed in the focus group as it had been acknowledged that not everything can be assessed in video virtual, but that intervention can be structured around meeting someone’s goal. The complexity of treating a broken ankle via video virtual care demonstrated this

*“Seeing an ankle virtually you can see... from objective measures how stiff it is, but I can't actually feel it, and the three-dimensional movement that the ankle moves. So I think for a best practice point of view, I would love to have a feel of how the joint moves, but I don't have to. I can, structure the assessment and get my objective measures from other methods virtually. And from there... we can prescribe exercises, sets, reps. ... Three sessions and they were on their way and achieved their goals, got on their cruise, had a nice holiday” (Participant 3, Physiotherapist).*

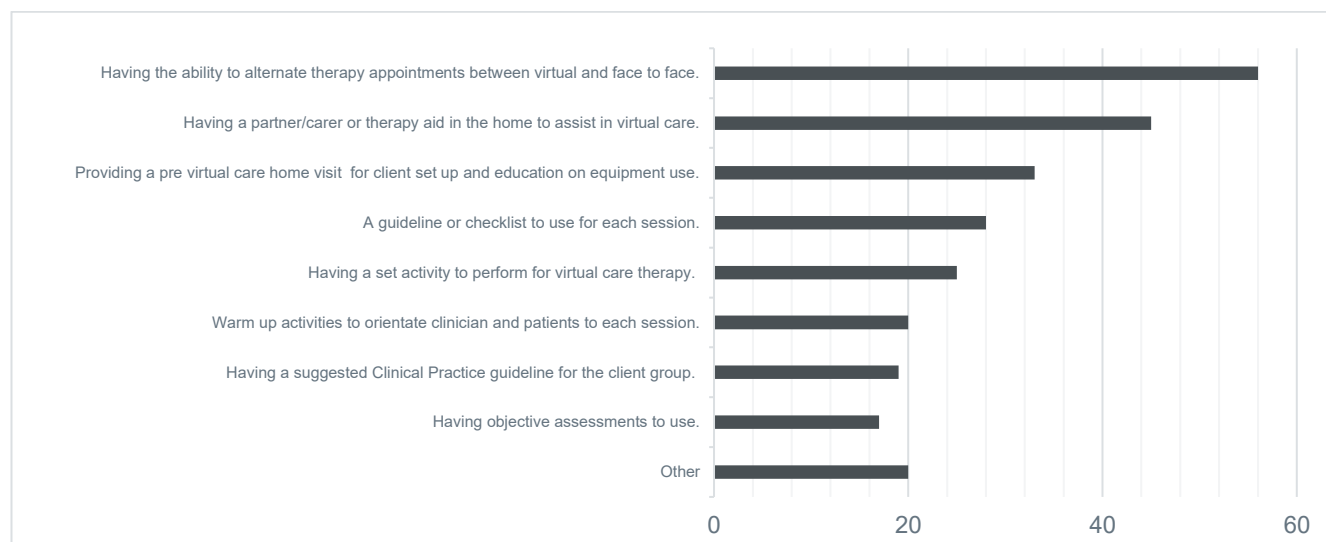
However, it was also agreed that not everything is appropriate for virtual care, and that to be effective clinicians also needed to alternate video virtual care and face to face appointments.

*“Because I think at the right time for the right intervention, virtual care is great, but for the wrong client, the wrong time, it is sub-optimal to face to face. Is this client or this assessment actually suited to virtual care? You make a judgement call about what they're actually looking for and what the assessments are likely to be” (Participant 8, Occupational Therapist).*

## Outcome

Using Donabedian category of *Outcome*, the researcher grouped responses that referred to changes that have occurred as a result of video virtual care. This included asking about competence. Less questions were asked in the focus group about outcome, as the researcher wanted to further explore the results of the survey which has stronger themes about structure and process.

The top four factors that allied health felt contributed to competence can be shown in Figure 3: Factors that contribute to allied health feeling competent in using virtual care. There were multiple responses as in this question survey participants chose one or more answers from suggestions and opportunity was made for allied health professionals to suggest other alternatives.



**FIGURE 3:** Factors that allied health felt contributed to feeling competent in video virtual care. n=263

Having the ability to alternate therapy appointments between virtual and face to face (76% of responses, n=56/263); Having a partner/carer or therapy aid in the home to assist in virtual care (61% of responses, n=45/263); Providing a pre virtual care home visit for client set up and education on equipment use (45%

of responses, n=33/263); A guideline for checklist to use for each session (38% of responses, n=28/263).

Other less frequently mentioned factors which contributed to competence included: Having a set activity to perform for virtual care therapy (such as a snakes and ladders game for children or for adults sit to stand for their usual sitting chair), 34% (n=25) of responses; Warm up activities to orientate clinicians and patients to each session 27% (n=20) of responses; Having a suggested Clinical Practice guideline for the client group (for example upper limb therapy for stroke, follow up to Total Hip Replacement) with 26% (n=19) responses; Having objective assessments to use such as the Goal Attainment Scale (GAS), or the Canadian Occupational Performance measure (COPM) or Movement Assessment Battery for Children (2<sup>nd</sup> Edition) or Timed UP and Go, recorded by 23% (n=17).

Overall allied health were positive that they were able to be responsive to individual patients. With 77% (n=57) scoring 5,6,7 on a 7-point Likert scale where 7 was strongly agree, and similarly allied health were positive that their patients were able to progress in their treatment, with a total of 80% (n=59) scoring 5,6,7.

Assessment tools used in video virtual by allied health clinicians varied widely, a total of 131 answers were offered with 54 options. The most frequent being weights or heights, speech therapy tools (not specified), Timed Up and Go, Sit to Stand test, functional review (nothing specific), client goals, Promis 29, HOPE and PROM and PREM. A total of 28 respondents reported "Nothing specific" or words to that effect. These can be seen in Appendix 1.

Two thirds (66 %, n=49) responded that they "did not know" whether assessment tools had been validated to the video virtual care environment and 24 % (n=18) answered "no" to this question. Only 9.5% (n=7) knew whether the assessment they were using had been validated to the video virtual care environment. Only 6 answers were offered out of 74, of assessment that had been validated. These included CELF-5, CELF-P3, I-Dex, weight scales, Story Champs intervention, Patient-generated Subjective Global Assessment, Stuttering assessment and intervention.

The lack of validated assessments was also discussed in the focus groups and was summed up well by one participant.

*"It depends what you're talking about best practice for, and I think that question would probably need to be split up with each discipline and what they were doing....not all assessment tools are validated to be used virtually ... it just depends on what you're trying to assess"* (Participant 2, Occupational Therapist).

Participants of the questionnaire were asked what they felt provided a provided a positive video virtual care intervention. This was an open-ended question, and a total of 112 answers were provided. The results indicated that the factors they felt that contributed to this being a positive experience were: Client engagement and participation (35/112) as well as ability to access the internet and have available technology (34/112) were clearly the most commonly mentioned factors. Clear goals and timelines (14/112), a structured organised session (10/112) as well as having a carer/ assistant at home (9/112) also featured as more frequently mentioned factors.

This was explored further in the focus groups and similar themes emerged including: having a pre-assessment trial run; the ability to alternate between video virtual care and face to face appointments; assistance to participate in video virtual care; clinician and patients having the ability to use video virtual care; having the resources ready to share; having large screens, having a structure and process to the video virtual care appointments; as well as having the research evidence to explain the benefits.

*“The client being able to connect and being able to use the program is probably for me the number one, and then it's the same with the clinician as well. Little things like making sure that everyone was connecting properly, making sure that everyone knew how to use it, making sure I knew how to use it gave me confidence” (Participant 1, Physiotherapist).*

As shown Table 1: demographic profile of survey responses, most respondents were experienced clinicians with 82 % (n=61) having worked for 6 or more years as an allied health clinician. The largest allied health profession represented in the survey were speech pathologists (n=20), physiotherapists (n=18) and dietitians (n=13). Use of video virtual care by allied health clinicians was most usually monthly or less often (n=54).

**Table 1: demographic profile of survey responses (n = 74)**

| Baseline characteristic                                                 | Full sample  |        |
|-------------------------------------------------------------------------|--------------|--------|
|                                                                         | n            | %      |
| <b>Years practicing as an allied health clinician:</b>                  | <b>74</b>    |        |
| less than 2 years                                                       | (5)          | 7%     |
| 2-5 years                                                               | (8)          | 11%    |
| 6-10 years                                                              | (15)         | 20%    |
| 11- 20 years                                                            | (23)         | 31%    |
| 21+ years                                                               | (23)         | 31%    |
| <b>How often use video virtual care:</b>                                | <b>(74)</b>  |        |
| Daily                                                                   | (3)          | 4%     |
| Once to several times per week                                          | (17)         | 23%    |
| Once a month                                                            | (18)         | 24%    |
| Less often                                                              | (36)         | 49%    |
| <b>Proportion video virtual care conducted with a tertiary service:</b> | <b>(73)</b>  |        |
| None                                                                    | (48)         | 66%    |
| Once or twice                                                           | (14)         | 19%    |
| Less than half                                                          | (3)          | 5%     |
| About half                                                              | (1)          | 1%     |
| Most of my video virtual care                                           | (7)          | 9%     |
| <b>Allied Health profession:</b>                                        | <b>(74)</b>  |        |
| Dietician                                                               | (13)         | 17.5%  |
| Exercise physiologist                                                   | (1)          | 1.3%   |
| Occupational therapy                                                    | (9)          | 12.2%  |
| Pharmacist                                                              | (3)          | 4.1%   |
| Physiotherapy                                                           | (18)         | 24.3%  |
| Psychologist                                                            | (2)          | 2.7%   |
| Social worker                                                           | (4)          | 5.4%   |
| Speech pathology                                                        | (20)         | 27.0%  |
| Other                                                                   | (4)          | 5.4%   |
| <b>Generally work mostly with:</b>                                      | <b>(74)</b>  |        |
| Adults                                                                  | (39)         | 52.7%  |
| Children                                                                | (11)         | 13.5%  |
| Both adults and children                                                | (24)         | 32.43% |
| <b>What Local Health District do you work in ?:</b>                     | <b>(76)*</b> |        |
| Far West NSW Local Health District                                      | (4)          | 5.4%   |
| Hunter New England NSW Local Health District                            | (25)         | 33.8%  |
| Mid North Coast Local Health District                                   | (4)          | 5.4%   |
| Murrumbidgee Local Health District                                      | (8)          | 10.8%  |
| Northern NSW Local Health District                                      | (5)          | 6.8%   |
| Southern NSW Local Health District                                      | (29)         | 39.2%  |
| Western NSW Local Health District                                       | (1)          | 1.4%   |

\*Two participants worked in more than one Local Health District.

## DISCUSSION

Video virtual care is an effective means to provide many allied health interventions as demonstrated in a number of research publications (1–4). This is particularly useful where a person is unable to attend face to face sessions. Rates of virtual care increased during the Covid 19 lock down periods; however, the statistics suggest that they have not been maintained and have in many cases declined (37). Allied health report that virtual care provides a less organic experience or does not provide the quality they would want in an intervention (15). So, in order to assist allied health adopt virtual care we need to know what quality intervention in virtual care would look like. Video virtual care has been chosen because of its proven benefits to provide a better-quality experience than a phone call (38). The Donabedian framework (32) has been used to analyse what a quality intervention for allied health in rural, regional and remote areas would look like.

This study has shown that, despite previous research suggesting that quality interventions in video virtual care include structured protocols, clinical pathways, and the skills and competencies of the workforce (22,27,39,40). However, this study did not identify these as the primary strategies for achieving quality intervention in allied health video virtual care. Instead, this study suggests that achieving quality outcomes and clinician confidence in video virtual care is more dependent on getting the structure of the intervention right from the outset. A key strategy identified was the use of pre-assessment trial runs, which assist in setting up the video virtual care environment effectively for both patients and clinicians.

Donabedian provides a framework that can be used to determine what quality looks like in video virtual care. Applying this lens has helped the researchers identify that we need to get the structure correct first, before we can get quality in the process or the outcome. These structural aspects include the importance of the initial setup, including providing virtual care in a separate office, with a microphone, headset and camera as well as providing a pre-screening process to determine health and digital literacy, safety as well as the ability of the client to use virtual care. Having the assistance of a health worker or family member to assist in the set-up process was frequently mentioned. If the structure was not suitable to virtual care, then being able to provide a face-to-face appointments assisted the allied health clinicians feel competent.

The importance of the initial set up was supported by the answers in the focus groups, which indicated that this extended not only to the *structure* of setting up the patients' environment, such as an appropriate chair, through to ensuring that the patients could participate in the conversation by the demonstration to the patients' the use of equipment and online communication. The focus groups indicated that quality in the structure of video virtual care could be achieved by a pre-assessment trial run; the ability to alternate between virtual care and face to face appointments; assistance to participate in video virtual care; clinician and patients' having the ability to use video virtual care; having the resources ready to share; having large screens, having a process to the video virtual care appointments. Whether we talked about goals, or establishing relationships the importance of initial set up of the sessions emerged as important themes.

This need for assistance at the patient level was not mentioned in previous research. This study suggests that to achieve quality in virtual care we need to make sure clinicians understands what it looks like for the patient. As suggested in a focus group "So when we're looking at something like *myVirtualCare*, we're looking at it from a clinician frame point" but that it's important to have "clinicians practice from the other side as well" (Participant 2, OT).

A finding of this study is that an important part of video virtual care requires clear verbal explanation and communication to the patients prior to the commencement of the intervention. A method to determine health literacy was not conducted by the respondents (82 %, n=61). When it was performed, it was conducted through general conversations (30%, n=22) and informal observation (18%, n=13). "Health

literacy refers to a person's ability to find, understand and use information to make decisions about their health" (41)<sup>i</sup>. Evidence indicates that poorer health literacy is associated with poor health outcomes and high healthcare costs (42). *Teach back* technique, a widely accepted form of gauging health literacy (42) was conducted by 16% (n=12) of the respondents indicating this may be an area that required further work. Further exploration in the focus groups indicated that initial assessment for video virtual care also assisted to determine the appropriateness of the environment as well as potential risks, and as such helped determine whether a face-to-face appointment was more appropriate.

The importance of health literacy in video virtual care is supported in the literature. In a recent study by Barksdale (43), which evaluated medical students using telehealth, found that Teach-back may impact remote practise by increasing providers ability to actively engage and empower patients in telehealth. Clinicians felt that virtual care worked better for those that had good health literacy and had a good in person relationship with the therapists (16). "Health literacy is important for consumers because it affects their capacity to make decisions and take action to manage their health and health care. It is important for healthcare providers because it affects the way that they manage their relationships with consumers and deliver health care (44) .

In Donabedian's framework, *structure* of the intervention is followed by *process*. *Process* being what was actually done when giving and receiving care. Overall allied health clinicians were not positive that they were providing best practice in their video virtual care clinical intervention. Where 58 % (n=43) could be said to be ambivalent. The researcher did not find reference to this in previous studies, however, previous studies did suggest allied health did not feel that virtual care was beneficial for some patients (16) and that telehealth assessments were generally considered less organic and holistic than face to face appointments (15). That said, at the heart of allied health practice is the requirement to provide best practice intervention (45) and that a failure to provide this may be a barrier to why we have not seen the maintenance or expansion of video virtual care for certain types of allied health intervention as demonstrated by the current Health System Performance reports (13).

In the study several themes were repeated when exploring the quality of the *process* of video virtual care. Set up and explanation to patients to begin the session was indicated by respondents as a factor that makes their video virtual care session an effective intervention in more than two thirds of respondents, then followed by having a set list of things to do on the day or having engaging tools such as video virtual games and prompts, which was reported by about a third of respondents. It would appear that having a quality *process* depends on getting the *structure*, or rather, the set up correct, before proceeding with video virtual care.

The most commonly mentioned factors that allied health felt contributed to a positive video virtual care intervention were client engagement and participation, as well as ability to access the internet and have available technology. Clear goals and timelines, a structured organised session, as well as having a carer/ assistant at home also featured as more frequently mentioned factors in survey results.

The need for resources that were easy read or translated and appropriate for the video virtual care environment was also apparent. Assessments and resources that are designed or validated for Aboriginal and Torres Strait Islanders, Easy read or for the CALD population were not generally available (reported by 73%, n=54). This was summed up by a questionnaire respondent "this is definitely an area that could use a lot of work".

In a study by Paul et al 2023, physiotherapists reported high levels of confidence for conducting video virtual care assessment and intervention but needed to adapt these to the home environment, for example walking in the kitchen with something always available to hold onto. This was similar to the results reported in this study. Assessment tools used by clinicians varied widely, with 54 options offered. However, most clinicians did not know whether these assessment tools had been validated to the video virtual care environment (66%, n=49), and, as mentioned most clinicians were adjusting tests and

outcome measures to suit to the video virtual care environment. With 61% (n=45) reporting sometimes and 12% (n=9) reporting always. While the most common adaptation was to miss sections of the test for safety reasons, or to use a carer, allied health assistant or nurse to assist perform the test. Some allied health modified the tests to use the patients' home environment or the patients' home equipment. The need to adjust a test may also indicate whether as a face-to-face intervention was most appropriate, which was supported by the results of the survey where clinicians felt more competent if they had the ability to alternate therapy appointments between virtual and face to face (76%, n= 56/263).

Goals as differentiated from outcome measures were discussed further in the focus groups. That at times, the goals of the person were more important than the assessment, and more appropriate for video virtual care. That it was not always possible to use standard assessments virtually, but you could still provide treatment, and that measurement via patient goals may be more effective. It was important to consider what virtual care was for and from there you could determine what was best practice and the most appropriate assessment. If assessment were not possible virtually, then you could still provide treatment, but measurement via patient goals may be more effective. That said allied health were keen to have validated test available and this had been discussed in the literature by Zischke (28) who mentioned that quality in virtual care requires validity of assessments, for example, elbow or shoulder orthopaedic tests and strength. This was elucidated in the focus group by an experienced virtual care allied health clinician. "Moving forward... it depends what you're talking about best practice for, and I think that question would probably need to be split up with each discipline and what they were doing for each thing, and not all assessment tools are validated to be used virtually" (Participant 2, Occupational Therapist).

The third part of the Donabedian framework refers to *outcome*. This research provided insights into how this can be improved to increase the quality of the allied health interventions.

Most clinicians were adjusting tests and outcome measures to suit the video virtual care environment sometimes or always (73% n=54). The most common adjustment was to miss sections out of the test due to reasons such as safety and other concerns. They may also use a carer, allied health assistant or nurse to assist perform the test. When this was explored further in the focus groups, again, the need for assistance to participate in virtual care from a carer, allied health assistant or other was reinforced. The literature indicated that telehealth assessments were generally considered to be less organic and holistic than face to face appointments and possibly loss of incidental information gained during face-to-face interactions. Some equipment was not available in the home which caused frustration, limiting satisfaction by allied health with the quality of the service being provided at home (Castle et al., 2022).

When exploring the factors that contributed to allied health clinicians feeling competent, similar themes emerge. That is, that competence relates to getting the *structure* or set up of the video virtual care session correct first, which leads to competence of the clinician. The top four factors being: the ability to alternate therapy appointments between virtual and face to face (76% of responses, n=56/263); Having a partner/carers or therapy aid in the home to assist in virtual care (61% of responses, n=45/263); Providing a pre virtual care home visit for client set up and education on equipment use (45% of responses, n=33/263); A guideline for checklist to use for each session (38% of responses, n=28/263).

It was considered by the researcher to be beyond the scope of the study to control or measure access to the internet or client technology, because it was assumed that clients needed internet access in order to participate in video virtual care. That said, the ability to access the internet and have available technology did it emerge as strong factor when participants were asked what factors contribute to video virtual care being a positive experience (34/112 responses). NSW government acknowledges that numerous areas in NSW Health have poor or no connectivity and is working towards a strategy to address this (46).

Donabedian has provided a framework to analyse the factors which contribute to quality and competence when using video virtual care. Through this analysis the research indicates that once the *structure* has been supported, through set up and support provided as necessary, then the allied health clinicians can proceed to providing tools and resources that improve the process and outcome of the video virtual care session. Key factors that contributed to *structure* included assistance by a health worker or carer to set up the video virtual care, as well as health literacy. Key factors that contribute to *process* included getting the *structure* of the session correct beforehand, client engagement resources that were easy read or translated and appropriate for video virtual care, the ability to offer face to face sessions if needed as well as the establishment of patient goals. The final phase of Donabedian framework, *outcome*, was also heavily influenced by structural factors including the assistance of a carer or therapy aid in the home to assist with set up. Quality in *outcome* also included having validated assessments appropriate for the video virtual care environment, as well as the ability to offer face to face appointments as necessary.

## Strengths and limitations

The participants included a wide range of health professionals from across seven LHDs in NSW, which included those that provided services in regional, rural and remote areas. Their insights provide useful information both on the broader context of video virtual care as well as specific interventions. Over 82% could be said to be experienced clinicians with more than 6 years' experience and 31% with over 21+ years' experience.

The strengths of the study can be found in the collective experience of clinicians providing video virtual care and their experience in providing this in the NSW rural health setting.

The limitations of the study include the lack of specificity of processes and assessments to professions that may indicate what a quality activity would look like.

## Conclusion

In order for allied health to provide video virtual care intervention, we need to know what a quality intervention looks like. The study has used the Donabedian framework to identify a number of key areas that contribute to quality and competence in using video call virtual care by allied health professionals in rural, regional and remote settings.

A key recommendation is that in order to have a quality outcome and feel competent in video virtual care, we need to get the structure of the intervention correct first and this is related to having pre assessment trial runs which assist with the set-up of the video virtual care for both patients as well as the clinician.

Competence of using video virtual care was also an important component of this study. The top four factors that allied health felt contributed to competence when performing video virtual care were: Having the ability to alternate therapy appointments between virtual and face to face; Having a partner/carer or therapy aid in the home to assist in virtual; Providing a pre virtual care home visit for client set up and education on equipment use; A guideline for checklist to use for each session.

It was clear that we need a way to assess both digital as well as health literacy in order to ensure appropriate *structure*, before we can progress to the *process* of allied health virtual care interventions, or assess for *outcomes*.

The need for resources that were easy read, translated or appropriate for the Aboriginal and Torres Strait Islander or Culturally and Linguistically diverse populations that are appropriate for the video virtual care environment was also apparent.

Assessments that are validated for the video virtual care environment are needed, and further work exploring options and suitability for each profession as well as suitability to the patient's goals is needed.

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## APPENDICES

### Appendix 1: Assessments used by Allied health in virtual care.

#### Patient outcome measures:

1. HOPE (Health Outcomes and Patient Experience), PROM (Patient Reported Outcome Measure) & PREM (Patient reported Experience Measure).

#### Goal setting and functional assessments:

2. COPM (Canadian Occupational Performance Measure).
3. Functional Goal Attainment measure.
4. Functional review (non-specific).
5. AQoL (Assessment of Quality of Life).
6. Home environment assessment (non-specific).
7. Client goals.
8. Stroke Impact Scale.
9. PG-SGA (Patient-Generated Subjective Global Assessment).
10. Subjective global assessment.
11. PSFS (Patient Specific Functional Scale).

#### Physical Assessments:

12. STS (Sit to Stand).
13. Gait Analysis.
14. TUG (Timed Up and Go).
15. 10 metre walk test.
16. Active straight leg raise.
17. OKS (Oxford Knee Score) or OHS (Oxford Hip Score).
18. CTSIB (Clinical Test of Sensory Interaction on Balance).
19. Bergs Balance.
20. Visual Analogue Scale for pain.
21. PROMIS29+(Chronic Pain Screening Guide).
22. Eyeball ROM/verbal comparison to furniture angles/screen angle measurement.
23. Cranial nerve test.

#### Nutrition assessments:

24. SCOFF.
25. MST (Malnutrition Screening Tool).
26. EDE-Q (Eating Disorder Examination Questionnaire).
27. Malnutrition assessment.

#### Clinical Observations:

28. Weight or height.
29. Food record journals.
30. BP (Blood Pressure).
31. Biochemistry and pathology results.
32. Pulse oximetry.
33. Bristol stool chart.
34. CAT (COPD Assessment Test).
35. L-Dex® Analysis for Lymphedema.
36. Limb volume assessments.
37. DASS21 (The Depression, Anxiety and Stress Scale – 21).

#### Mood and Psychological assessments:

38. HADs (Hospital Anxiety and Depression Scale).
39. Psychosocial assessment tools (not specified).
40. Q – global.
41. MoCA (Montreal Cognitive Assessment).

- 42. Mood screening.
- 43. Biopsychosocial assessments.

**Speech and language assessments:**

- 44. Adult swallow assessment.
- 45. CELF (Clinical Evaluation of Language Fundamentals).
- 46. KCX12 (Kindergarten KCX12 assessment).
- 47. CUBED.
- 48. Speech therapy tools (not specified).

**Other:**

- 49. ORS (Outcome Rating Scale).
- 50. Photos (not specified).
- 51. Checking in at end of session.

## Appendix 2: Questionnaire



# Southern NSW Local Health District

Thank you for agreeing to participate in this questionnaire. The questionnaire explores factors which contribute to quality in providing video virtual care (also known as videoconferencing or telehealth) by allied health practitioners to people across rural, regional and remote Local Health Districts of NSW Health.

Participation in this survey is completely voluntary. By completing the survey you are indicating you consent for your response to be used in this research project.

When you are answering these questions, please think only of your experience in using video virtual care (also known as videoconferencing or telehealth). That is, when you are able to visually see the patient and yourself in their home, place of work or childcare service, or from your place to work to another service.

As an allied health practitioner providing services to people in rural, regional and remote areas, we are interested in your firsthand experiences of delivering care.

All information from this survey is anonymous and will remain confidential and stored in a secure cloud. We welcome your feedback to build a better Virtual care experience for allied health practitioners.

1. How many years have you been an allied health practitioner?

- ☐ less than 2 years
- ☐ 2-5 years
- ☐ 6-10 years
- ☐ 11- 20 years
- ☐ 21+ years

2. Thinking about the workspace that you use when providing video virtual care, please tick the following if the answer is Yes.

- ☐ Is video virtual care provided at a desk with other workers in the same room?
- ☐ Is video virtual care provided in a separate office?
- ☐ Do you use a head set and microphone to provide video virtual care?
- ☐ Do you have access to a camera (either via a laptop or a USB port)?

3. Do you perform a reflective listening assessment at the beginning or before your virtual care intervention to gauge the health literacy of your patients?

- ☐ Yes
- ☐ No

4. How do you gauge the health literacy of your patients?

5. What factors make your video virtual care sessions an effective intervention?

- ☐ A toolkit
- ☐ A set list of interventions? Such as a sit to stand test at the kitchen table or using snakes and ladders for sounds?
- ☐ A set list of things to assess on the day?
- ☐ Having hard copy paper information for patients at the time of intervention? Such as “How to perform and exercise” sheet.
- ☐ Having engaging tools such as games or visual prompts (such as a game sheet, videos or photos)?
- ☐ Set up and explanation to patients to begin the session?
- ☐ Other

6. Thinking about your competence in using video virtual care. What factors do you feel would contribute to you feeling competent?

- ☐ Having a suggested Clinical Practice guideline for the client group (for example upper limb therapy for stroke, follow up to Total Hip Replacement).
- ☐ A guideline or checklist to use for each session?
- ☐ Providing a pre virtual care home visit for client set up and education on equipment use?
- ☐ Having a partner/carer or therapy aid in the home to assist in virtual care.
- ☐ Having a set activity to perform for virtual care therapy (such as a snakes and ladders game for children, or sit to stand from their usual sitting chair)?
- ☐ Having objective assessments to use such as the Goal Attainment Scale (GAS), or the Canadian Occupational Performance Measure (COPM) or Movement Assessment Battery for Children (2nd Edition), or Timed Up and Go?
- ☐ Having the ability to alternate therapy appointments between virtual and face to face?
- ☐ Warm up activities to orientate clinician and patients to each session.
- ☐ Other

7. Using the scale from 1 (strongly disagree) to 7 (strongly agree), to what extent do you agree with each statement in relation to your experience of providing video virtual care (videoconferencing or telehealth) to your clients ?

|                                                                                                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| I am able to be responsive to the needs of individual patients to create a positive patient experience. |   |   |   |   |   |   |   |

8. Using the scale from 1 (strongly disagree) to 7 (strongly agree), to what extent do you agree with each statement in relation to your experience of providing video virtual care (videoconferencing or telehealth) to your clients ?

|                                                                                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| I feel that my patients are able to progress in their treatment via video virtual care. |   |   |   |   |   |   |   |

9. Using the scale from 1 (strongly disagree) to 7 (strongly agree), to what extent do you agree with each statement in relation to your experience of providing video virtual care (videoconferencing or telehealth) to your clients ?

|                                                                                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------------------------------------------------------------------|---|---|---|---|---|---|---|
| I feel that I am able to provide best practice intervention via video virtual care. |   |   |   |   |   |   |   |

10. When you are using video virtual care (telehealth or videoconferencing), what factors help you align this with the currently accepted best practice?

11. What assessment tools or outcomes measures do you use in your video virtual care therapy sessions?

12. Have the assessment tools that you use been validated to the video virtual care or telehealth environment?  
(if Yes, jump to question 13 ; if No, jump to question 14 ; if Don't know, jump to question 14)

- ☐ Yes
- ☐ No
- ☐ Don't know

13. Which tools or assessments have been validated for video virtual care or telehealth?

14. When you feel you provide a positive video virtual care intervention, what factors do you feel contribute to this positive experience?

15. Do you need to adapt tests and outcome measures to suit the home environment because you are using video virtual care (telehealth)?

(if Never, jump to question 17 ; if Sometimes, jump to question 16 ; if Always, jump to question 16)

- ☐ Never
- ☐ Sometimes
- ☐ Always

16. How have you adapted tests to suit the video virtual care (telehealth) environment?

17. Do you provide assessments and resources by video virtual care that are designed or validated for Aboriginal and Torres Strait Islanders? Including Aboriginal specific or Easy Read fact sheets and Aboriginal specific resource sites?

- ☐ Yes
- ☐ No
- ☐ Sometimes

18. Do you provide assessments and resources by video virtual care that are designed or validated for Culturally and Linguistically diverse populations, including Easy Read or translated options or the use of interpreters?

- ☐ Yes
- ☐ No
- ☐ Sometimes

19. Please tell us about these resources.

20. How often do you use video virtual care?

- ☐ Daily
- ☐ Once to several times per week
- ☐ Once a month
- ☐ Less often

21. What proportion of your use of video virtual care is conducted with a tertiary or specialty health service? (For example, a combined assessment or consultation with Prince of Wales Hospital or Sydney Children's Hospital Network?)

- ☐ None
- ☐ once or twice
- ☐ Less than half
- ☐ About half
- ☐ Most of my video virtual care

22. What is your profession?

- ☐ Allied Health assistant
- ☐ Audiologist
- ☐ Dietician
- ☐ Exercise physiologist
- ☐ Occupational therapy
- ☐ Pharmacist
- ☐ Physiotherapy
- ☐ Podiatrist
- ☐ Psychologist
- ☐ Radiographer
- ☐ Social worker
- ☐ Speech pathology
- ☐ Other

23. Generally, at work, do you work mostly with:

- ☐ Adults
- ☐ Children
- ☐ Both adults and children

24. What Local Health District do you work in ?

- ☐ Far West NSW Local Health District
- ☐ Hunter New England NSW Local Health District
- ☐ Mid North Coast Local Health District
- ☐ Murrumbidgee Local Health District
- ☐ Northern NSW Local Health District
- ☐ Southern NSW Local Health District
- ☐ Western NSW Local Health District

25. Would you be willing to participate in a follow up focus group to discuss these subjects further? If so, please respond by clicking this link. [Marcella.levey@health.nsw.gov.au](mailto:Marcella.levey@health.nsw.gov.au). This will open a new email message. Once you have sent the email you can return to finish the survey. Your survey responses will not be linked to your email address in any way.

If you do not want to participate, then you can simply submit this survey by clicking the Agree on Disclaimer & Submit button below.

- ☐ Yes I would like to join a focus group and have clicked the link
- ☐ No, I do not want to join a focus group

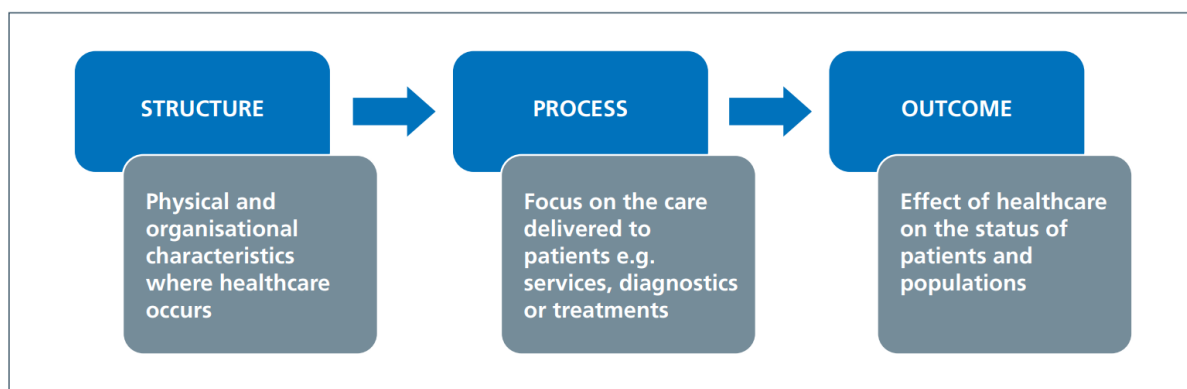
### Appendix 3 focus group questionnaire:

**Focus Group structure: “What are the factors that contribute to quality and competence in using video virtual care by allied health professionals in a rural, regional and remote settings”. FINAL 25 February.**

| Focus Group                                                  | Time (total 1 hour) | Script                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advise people that turning on camera                         | 1 mins              | <p>To start today I would like to introduce myself, my name is Marcella Levey, and I currently work as an allied health educator for Southern NSW Local Health District, I am completing my research as part of the HETI Rural Research and Capacity Building Program. So that we can accurately capture your thoughts, this focus group will be recorded, and I am using AI (Artificial Intelligence) via MS Teams to assist with transcribing this recording for analysis. I have turned on the camera and anything will now be recorded.</p> <p>Welcome to today’s focus group. Today we will explore in further depth the results of the survey that you participated in titled <b>“What are the factors that contribute to quality and competence in using video virtual care by allied health professionals in a rural, regional and remote settings”</b>.</p> |
| Acknowledgment of country                                    | 3 mins              | <p>In the true spirit of Reconciliation through embracing the value of Collaboration, openness and respect and empowerment, Southern NSW Local Health District acknowledged and pays respect to the traditional custodians of the land; the Gundungurra, Ngambri, Ngarigo, Ngunnawal and Yuin peoples.</p> <p>We share and celebrate the rich history of the Aboriginal culture and recognise the diverse and proud Aboriginal nations across our district.</p> <p>Southern NSW Local Health District acknowledges Aboriginal and Torres Strait Islander elders, community members and staff for their ongoing contribution to society and their commitment to improving the health and wellbeing of Aboriginal and Torres Strait islander people.</p>                                                                                                               |
| Advice on what I will be doing                               | 5 mins              | <p>Following the focus group or interview, the recording will be transcribed by myself (Marcella Levey) the principal investigator and participants will be deidentified. The transcripts will then be analysed for recurring themes.</p> <p>The deidentified transcripts will be checked by the associate researchers for validity.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Advise about NSW Health policy and how we would communicate. |                     | <p>So, some housekeeping rules to keep us connected</p> <p>Please keep camera on, your opinions are valued in this focus group.</p> <p>When communicating a difference of opinion try to use the “I’s” “I feel that”, “In my opinion”, “In my experience”. This keeps communication more respectful within the focus group and allows us all to have difference of opinion.</p> <p>I also need to make sure that you are aware that if you do disclose that your behaviour that is contrary to NSW Health code of conduct, policy and procedure or that falls under mandatory reporting guidelines then I will need to make your manager aware or manage as per NSW policy. So today we will only be talking about when we use NSW Health approved applications for video virtual care such as PEXIP and MyVirtual care and no others.</p>                           |
| Donabedian model (intro)                                     |                     | <p>I will be guided by Donabedian model for quality of care. (Present Donabedian model as a slide). I will use this to structure my questions, however, we will not be going into this in any further detail today.</p> <p>So let’s begin to now find out more about your thoughts and opinions from the findings of the survey.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## How to use it

**Figure 1: The Donabedian model for quality of care**



|                                                       |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Structure<br>Relates to Q 4                           | 10 mins | <p>I'd like to explore health literacy and technological literacy in the client's home. How are you as clinicians making an assessment of someone's technology in the home and their ability to use this technology and interact with you?</p> <p>And what about safety in the home, including the presence of other people who may create an unsafe environment. How are we assessing this ?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Structure & Process<br>Relates to Q 5                 | 10 mins | <p>In the survey we asked <i>What factors make your video virtual care sessions an effective intervention?</i></p> <p>By far the most common response was "set up and explanation to patients to begin the session?". With 67.6% responses.</p> <p>About a third of the respondents also reported:<br/> <i>"A set list of things to do on the day"</i> and <i>"having engaging tools such as games or visual prompts (such as a game sheet, videos, or photos)"</i>.</p> <p><b>How do you go about setting up for a session?</b><br/> <b>How do you use these tools to make video virtual care effective?</b></p>                                                                                                                                                                                                                                                                            |
| Process<br>Relates to Question 6                      | 10 mins | <p>From the survey, when allied health were asked the question <b><i>What factors do you feel would contribute to you feeling competent?</i></b></p> <p>The top four factors were:</p> <ul style="list-style-type: none"> <li>• Having the ability to alternate therapy appointments between virtual a face t face with 75.7% of respondents.</li> <li>• Having a partner/carer or therapy aid in the home to assist in virtual care (59.5% of respondents.</li> <li>• Providing a pre virtual care home visit for client set up and education on equipment use?</li> <li>• A guideline for checklist to use for each session 37.8%.</li> </ul> <p><b>I am interested in exploring this further. It would appear that competence in using video virtual care is strongly related to factors other than the actual video appointment. Does this match your experience? Why / why not?</b></p> |
| Process<br>The answers from Q 9 and 10 relate to this | 10 mins | <p><b>If we move on to the question:</b><br/> <b>"I feel that I am able to provide best practice intervention via video virtual care"</b>. Overall respondents were not as positive that they could provide best practice.</p> <p>The top answers suggested Access to technology equipment and internet and user capability scored the highest.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                   |           | <p>This was followed by using standardised assessments and evidence based practice, having information or education tools (paper or pdf or visual) or providing the same intervention as at face to face intervention were also important.</p> <p><b>Can you tell me more about the answers that I am seeing ?</b></p>                                                                                                                                                                                           |
| <p><i>Outcome</i></p> <p>The answers from Q 14 relate to this</p> | 10 min    | <p>Connecting and communicating. Client engagement and participation was suggested as contributing to a <b>positive video virtual care intervention</b>. <b>Can you tell me more about how you feel this is achieved in the video virtual care environment?</b></p>                                                                                                                                                                                                                                              |
| closure                                                           | 3 minutes | <p>A reminder that all information will be de identified<br/>If you would like me to discuss this further.</p> <p>You are welcome to request a copy of the transcript from the focus group or interview you attended.<br/>Please let me know now or stay on the line if you would like anything removed from the transcript.</p> <p>And lastly an enormous Thank you. I value your time and your opinions and hopefully I can communicate these finding to improve video virtual care in NSW for the future.</p> |