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Observed and Reported Outcomes Following Experiential Cultural Capability and Clinical Yarning Training for Clinicians Treating Aboriginal and Torres Strait Islander People with Persistent Pain

Stuart Ekberg

Renata F. I Meuter

Ivan Lin

Roslyn Rowen

Angela Kinnell

Eva Malacova

Tania Waring

Kushla Houkamau

Marayah Taylor

Matthew Bryant

Jermaine Isua

Andrew Claus

Paul Gray

Joseph Kluver

Christina M. Bernardes

Greg Pratt

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Abstract

Communication is recognised as crucial to culturally safe healthcare, and poor communication remains a major reason that Aboriginal and Torres Strait Islander people do not access healthcare. This pragmatic, pre-post comparison study employed mixed methods to evaluate cultural capability and clinical yarning training delivered to 57 clinicians supporting Aboriginal and Torres Strait Islander people at three persistent pain management services in Queensland, Australia. Observable outcomes of the training were evaluated by video recording clinicians' training experiences and seven consultations with patients that occurred either pre- or post-training. Reported outcomes were evaluated by using a modified Cultural Safety Survey (CSS), which was completed by 67 patients during a period pre- and post-training delivered to the clinicians. Using conversation analysis methods and focusing on clinicians recorded both pre- and post-training, analysis of video recordings identified observable differences in communication practices that were consistent with learning opportunities in the training. Statistical analysis of the CSS survey focused on subsamples of data from 20 patients who consulted clinicians who attended training. A comparison of pre- and post-training data and found no difference in the overall score of the CSS ($p=0.594$). The study identified differences in social practices following training but did not find changes to patient experiences of care. These findings demonstrate the feasibility of changing clinical communication in relation to culture, while also highlighting the importance of examining practices used in social interaction to determine whether and how training is applied by learners.

Ethics Approval Statement

This study was approved by a Queensland Hospital and Health Service Human Research Ethics Committee (reference: 63949), endorsed by ethics committees at the three participating study sites, with administrative approval provided by the Queensland University of Technology Human Research Ethics Committee (reference: 2000000802).

Keywords

communication; training; Aboriginal and Torres Strait Islander peoples; intervention; outcomes; pain

Effective communication is essential for high-quality and safe healthcare (Rider et al., 2014; Street et al., 2009), and has particular importance in care for specific conditions and patient groups. For subjectively experienced conditions such as pain, effective communication underpins the success – or failure – of nearly all aspects of pain management (Henry & Matthias, 2018). Healthcare for culturally and linguistically diverse patient cohorts can involve complex challenges for communicating about pain (Yoshikawa et al., 2020). In Australia, an ongoing commitment has been made to reduce health disparities between Aboriginal and Torres Strait Islander peoples and other peoples who live in Australia (Productivity Commission, 2022). Reducing these disparities will require addressing communication challenges that are prominent among the reasons Aboriginal and Torres Strait Islander people do not access care (Nolan-Isles et al., 2021), including when experiencing persistent pain (Lin et al., 2018). Beyond Australia, communication is a recognised challenge for many Indigenous people around the world when they access healthcare (Dell'Arciprete et al., 2014; Lambert et al., 2014; Marrone, 2007; Sørly et al., 2021). Given ongoing challenges, enhancing communication for Aboriginal and Torres Strait Islander people accessing healthcare remains a priority (Australian Health Ministers' Advisory Council National Aboriginal and Torres Strait Islander Health Standing Committee, 2016; Commonwealth of Australia, 2014; Queensland Health, 2010). Within and beyond Australia, cultural training has become an increasingly common approach used to enhance ways clinicians interact with Indigenous peoples (Clifford et al., 2015; Hardy et al., 2023; MacLean et al., 2023; Rissel et al., 2023; Truong et al., 2014).

Communication is a recognised core principle for health systems provide safe and effective care to the culturally diverse population of contemporary Australia (Australian Health Ministers' Advisory Council National Aboriginal and Torres Strait Islander Health Standing Committee, 2016; Commonwealth of Australia, 2014; Elvidge et al., 2020). In the Australian State of Queensland, the site of the current study, this includes recognising cultural differences and adapting communication (Queensland Health, 2010). The importance of communication is recognised in a recently developed Cultural Safety Survey

that includes communication as a central aspect of culturally safe care (Elvidge et al., 2020). Building on these developments, the current study evaluates training for persistent pain clinicians, to understand how clinicians might learn about culturally capable communication and if this learning results in tangible changes to clinical practice. Framed within Queensland Health's cultural capability training (Queensland Health, 2010), the intervention introduced clinicians to 'clinical yarning', which integrates communication practices used by Aboriginal and Torres Strait Islander peoples with biomedical understandings of health and disease (Lin et al., 2016).

Communication in healthcare systems developed in Europe and European colonies (hereafter referred to as 'Western healthcare', reflecting historical ideas of Europe occupying the geographic West) has been found to be characterised by specifiable practices. These include relatively succinct sequences of action, such as question-response sequences designed to inform a diagnosis (Boyd & Heritage, 2006; Heritage, 2010). In contrast, yarning is characterised by storytelling practices commonly used by many Aboriginal and Torres Strait Islander peoples (Bessarab & Ng'andu, 2010; Lin et al., 2016; Rheault et al., 2021). In clinical yarning, clinicians accomplish the aims of a consultation through three interrelated yarns: social, diagnostic, and management (see Figure 1). Recognising that the knowledge sharing systems of Aboriginal and Torres Strait Islander peoples are often non-linear, the three yarns may occur serially, but can be diversely organised to suit specific conversations with particular patients (Lin et al., 2016):

- Social yarning involves finding common ground and developing rapport.
- Diagnostic yarning involves listening to a health story while interpreting through a biomedical perspective.
- Management yarning involves explaining information in contextually and culturally meaningful ways, such as through the use of stories and metaphors (Lin et al., 2016).

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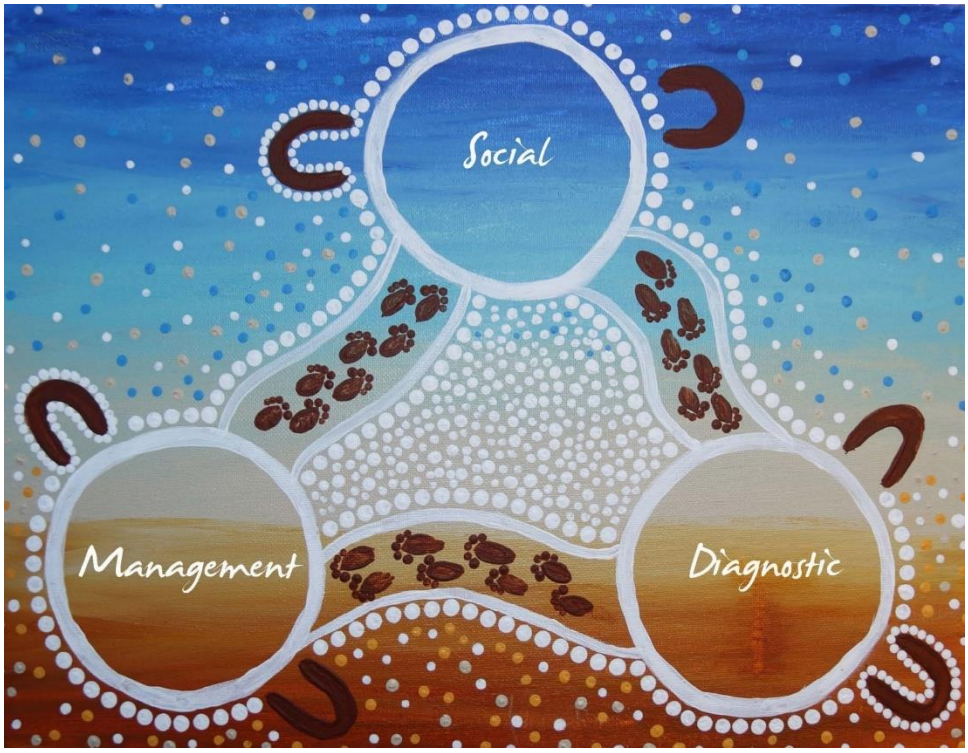
Figure 1

Clinical Yarning Framework.



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Implementing communication approaches like clinical yarning may require considerable changes to communication typical in Western healthcare systems (Laverty et al., 2017). For example, consultations in Western healthcare usually begin by establishing a clinical focus. This often limits relational activities to greeting, getting the patient seated, and confirming their identity (Robinson, 1998). In contrast, relational activities are foregrounded in clinical yarning. Social yarning often precedes other activities to ensure a secure relational basis upon which the parties can engage in those other activities (Bessarab & Ng'andu, 2010; Lin et al., 2016). Given the changes that may be required to implement cultural capability and clinical yarning, the present study aims to determine whether this is feasible in practice. To understand this, the study was designed to examine observable practice in consultations between clinicians and patients and outcomes reported by patients.

Methods

Study Design and Setting

This study is part of a pragmatic, multicentre intervention feasibility study evaluated using mixed methods (Bernardes, Lin, et al., 2022).

The intervention aimed to improve communication between clinicians and Aboriginal and Torres Strait Islander patients accessing three hospital outpatient persistent pain management services (two metropolitan and one regional) in Queensland, Australia. A cultural capability and clinical yarning communication training program was developed, informed by research (Bernardes, Ekberg, et al., 2022; Bernardes, Houkamau, et al., 2022). This article reports a pre-post comparison study employing mixed methods to evaluate the impact of the training on: 1) observable communication practice; and 2) patient-reported experience of healthcare.

Participants

In accordance with ethical approval, all potential participants were required to provide informed consent to participate. The study involved two participant groups: 1) All adult patients who: a) self-identified as Aboriginal, Torres Strait Islander, or both, and b) were presenting with persistent pain to the three services described earlier; and 2) clinicians specialised in pain management working within those same three services. As clinic records could sometimes be incomplete, Aboriginal and Torres Strait Islander Hospital Liaison Officers were consulted to complete the most comprehensive list possible of patients who self-identified as Aboriginal, Torres Strait Islander, or both. In the 2021 population census, 4.6% of the Queensland population identified as an Aboriginal person, a Torres Strait Islander, or both. Aboriginal and Torres Strait Islander people were more populous in the study areas than other parts of Queensland, either in terms of overall number or proportion of population (Australian Bureau of Statistics, 2022). Referrals varied across the services involved in the study. One metropolitan service had 5.4% of referrals for Aboriginal and Torres Strait Islander people (n = 140), another metropolitan service 5.5% (n = 107), and the regional service 8.7% (n = 200). Due to the COVID-19 pandemic, not all referrals resulted in

patients attending in-person consultations. Moreover, not all patients consulted clinicians who received training. This reduced the population available for recruitment to 122 patients.

Procedure

Intervention: Communication Training

Participating clinicians attended day-long experiential training about cultural capability and clinical yarning, co-facilitated by a Torres Strait Islander specialising in cultural capability training (JI) and a non-Indigenous pain specialist (MB). Cultural capability training comprised presentations and experiential activities designed to increase understanding Aboriginal and Torres Strait Islander peoples, their cultures, health, spirituality, family and kinship, customs, and lores, and the impact of colonisation and racism (Queensland Health, 2010). Cultural capability framed the importance of clinical yarning (Lin et al., 2016). Clinical yarning training comprised presentations and activities that involved reflecting on video recordings of simulated consultations. This was followed by further learning that involved training participants and Aboriginal and Torres Strait Islander actors who simulated patients. This simulated learning provided clinicians with opportunities to practice communication skills used in the different phases of clinical yarning.

Between February and June 2021, 57 clinicians attended a complete communication training session held at each of the three participating services. Due to rotation of clinical staff, the precise number of clinicians available to participate in training was unknown but was estimated to be 111. Clinical professionals included medical specialists (pain, rehabilitation, psychiatry), nurses, occupational therapists, pharmacists, physiotherapists, psychologists and administration officers. Two of the participating clinicians reported identifying as an Aboriginal person, a Torres Strait Islander, or both.

Video Recording Communication Practice

To understand whether communication changed following training, observations of communication practice were collected by video-recording consultations pre- and post-training. Consultations were recorded with the independent consent of the clinician and patient. To minimise impact, two small camcorders were used and researchers were not

present during the consultation. Between February and October 2021, a total of seven pain management consultations were video recorded at two of the persistent pain services.

Although not a requirement for inclusion in the study, the recorded consultations only involved a clinician and a patient (i.e., no other parties, such as family members, were present).

Measuring Patient-Reported Experience of Cultural Safety

Consenting patients completed a survey following consultations during the pre- and post-training periods. Data were collected during routine practice, which meant not all patients completed at least one survey pre- and post-training. Most patients also consulted several clinicians, reducing the likelihood of completing a survey about the same clinician pre- and post-training.

Patient-reported experiences of healthcare were measured using a modified version of the Cultural Safety Survey (CSS) (Elvidge et al., 2020). The CSS was used due to its focus on cultural safety for Aboriginal people and inclusion of items relating to communication. The CSS was designed to assess five domains: positive communication, negative communication, trust, environment, and support for families and culture. Two modifications were made to suit the current study: 1) asking specifically about the clinician that the patient had just consulted (instead of 'hospital staff' in general); and 2) removing four of the six questions focusing on inpatient experiences from the support for families and culture domain, as these were irrelevant for a study of outpatient services. Patients rated the CSS items using a four-point Likert scale (0 = never; 3 = always).

Surveys could be completed at the clinic immediately following consultations or over the telephone up to two weeks later. At the two metropolitan pain management services participant recruitment and data collection was undertaken by two researchers independent from those services (KH and CB). Due to the impacts of the COVID-19 pandemic, most data collection occurred over the telephone, with a smaller amount occurring in the clinic. At the regional service, participant recruitment and data collection were undertaken by a clinician who was appointed as a researcher for the duration of the project. Most data collection for

this site occurred in the clinic. Across a pre- and post-training evaluation period that extended from August 2020 and August 2021, 67 patients across the three services completed a survey (a response rate of 55.0%).

Data Analysis

Communication Practice

Video recorded consultations were analysed using conversation analysis methods, which are widely used to study real-world clinical communication (Montiegel & Robinson, 2021; Tietbohl & White, 2022). Conversation analysis has also been used to understand communication practices of Aboriginal peoples in non-healthcare settings (e.g., Mushin & Gardner, 2009) and Indigenous healthcare communication practices in other parts of the world (e.g., Guzmán, 2014), but there have been few – if any – conversation analytic studies of consultations involving Aboriginal and Torres Strait Islander patients in Australia. The current study is a type of applied conversation analysis (Antaki, 2011), using conversation analysis to evaluate the impact of communication training (White et al., 2021).

A case study approach was adopted to explore the organisation of individual consultations (Schegloff, 1987). This approach facilitated exploring pre-training consultations to identify whether aspects of the training were already part of a clinician's communication practice. Similarly, this approach enabled exploring whether post-training consultations included communication practices that were a focus of the training. Consistent with the case study approach (Schegloff, 1987), findings of existing conversation analytic studies, particularly findings from healthcare, were used for detailed analysis of cases. Initial scoping analysis of entire consultations was conducted by RR. This identified comparable moments across pre- and post-training consultations that were subsequently analysed in detail by SE. Analysis was enhanced using detailed transcription systems for verbal, vocal, and body-behavioural communication (Jefferson, 2004; Mondada, 2018). A list of transcription conventions used in this article are available in Appendix A. Video recordings of training were also examined to consider what clinicians were taught and whether this was consistent with post-training communication practice. Fragments of data are reported below to explain

the analysis developed through the case studies. Consistent with standard reporting practice in conversation analysis, detailed transcripts are included to enable empirical validation of analytic claims. The relevant aspects of each fragment are described in the analysis that follows.

Patient-Reported Experience of Cultural Safety

To calculate the CSS score, negatively weighted items were reverse scored and values summed (Elvidge et al., 2020). Pre- and post-training CSS scores were compared to determine whether patient-reported experiences changed. Surveys were included only if the clinician received training and at least one pre- and one post-training survey had been completed about them by a patient.

Overall, patients completed 82 surveys pre-training and 43 surveys post-training. Surveys were excluded if the clinician's identity was not recorded. If a patient completed more than one pre-training survey for the same clinician, only the first survey was retained. Where a patient completed more than one survey for the same clinician post-training, only the last survey was retained. This approach maximised the period between pre- and post-training survey points. This approach resulted in 15 pre-training and 10 post-training surveys for analysis. In five instances a patient had seen the same clinician and completed pre- and post-training surveys for that clinician, resulting in 5 matched pre- and post-training surveys (matched data). The remaining surveys (10 pre-training and 5 post-training) were unmatched.

The CSS scores pre- and post-training were summarised using medians. Tests for significant differences between CSS scores pre- and post-training employed the Mann-Whitney U test for the unmatched surveys and the Wilcoxon signed-rank test for the matched surveys.

Results

Observable Evidence of Communication Practice

Each of the seven recorded consultations involved a different patient and one of five participating clinicians. Of the five participating clinicians, two were recorded in consultations

both pre- and post-training. One of these occurred at a metropolitan clinic and the other at a regional clinic. The four consultations recorded with these two clinicians became the focus of detailed case study analysis, as these provided opportunities to determine whether differences in communication were observable pre- and post-training. The three other consultations that were not part of these detailed case studies were subsequently analysed to determine whether they were consistent or divergent from what was observed in the case studies. One of the post-training consultations was excluded from analysis because it involved a clinician who helped facilitate the training and was therefore likely to have become much more proficient in what was in the training. This left a pre-training consultation involving a clinician who was not recorded in a post-training consultation and a post-training consultation involving a clinician who was not recorded in a pre-training consultation.

The following analysis focuses on the opening moments of consultations as a key phase where differences can be observed between Western clinical communication and clinical yarning. Existing evidence indicates rapid establishment of a clinical focus is typical in Western healthcare consultations (Robinson, 1998), while clinical yarning prioritises social yarning to develop a secure relational basis for pursuing other activities (Lin et al., 2016).

The principles of social yarning were not observed in the communication practices of clinicians filmed for the pre-training data. Fragment 1 is an example of this, taken from a pre-training consultation between a nurse and an Aboriginal patient. The fragment begins 20 seconds into the recording of the consultation; The nurse almost immediately establishes a clinical focus for the consultation.

Fragment 1: Pre-training: CL3/HP3046/PT3086/21-04-2021/C1/00:20-00:45

```
01 NUR     Please take a s:eat and m:ake yourself comfortable.
02         (0.3)+(.)
   nur          +closes door
03 PAT     (Anywhere?)
04 NUR     +Yeah+ Δjust there's Δgood.
           +----+
               └>points to chair next to desk
   pat            Δsitting down-Δ
05         (0.2)
06 NUR     +Unless you want the comfy chair¿
           +gestures to ergonomic desk chair while walking towards it--->
07         (.)
08 PAT     Ah nah.
```

```
09 NUR     +Heh heh.
       --->+moves desk chair--->
10         (0.4)
11 NUR     +So pretty much this::+ i:nterview today i:s: .hh just
       --->+sitting down---------+reaching for seat height pedal--->
12         about your- ouh I can't get the s:eat do+:wn.
                                                 --->+lowers seat
13         (0.4)
14 NUR     +.hh You had a +proce:dure done with us on the: twe:n'y f::ir-
       --->+              +pointing to computer screen--->
15         on the::+ (0.6) hang on >let me have a< l:ook, (0.2)+ on the
                --->+looks at paper record---------------------+
16         <s:eventeenth> of the thi::rd.
17 PAT     Uhm[:,   y e s : .]
18 NUR        [You had an arr] eff en (("RFN"[1])) done in your back?
19 PAT     °Yeh°
20 NUR     How did you go¿
```

The initial moments of this consultation include tasks identified in previous research as typical in Western healthcare consultations (Robinson, 1998). Although two typical tasks are not recorded – greeting and confirming the patient's identity – this is probably because the patient and nurse met outside the consultation room. Once they enter the room, the nurse quickly accomplishes the other two tasks typical of the opening phase of Western healthcare consultations (Robinson, 1998). First, she gets the patient to sit down (lines 1-4). Second, after she has sat down herself (lines 6-12), she establishes a clinical focus for the consultation. She accomplishes this by informing the patient what she knows from his medical record (lines 14-18) and asks about the outcome of his previous treatment (line 20). Within 45 seconds of the patient and nurse entering the room, a precise clinical focus has been established.[2]

Two days after the consultation from which Fragment 1 was taken, the nurse participated in cultural capability and clinical yarning training. This included detailed explanation of the use of social yarning to develop a relationship of trust with patients. In the

[1] "RFN" is an initialism for radiofrequency neurotomy.

[2] A similar opening was observed in another pre-training consultation. This consultation involved a doctor who was recorded in a pre-training consultation but not a post-training consultation. In the pre-training consultation, the doctor engages in relation activities typical in the opening moments of Western healthcare consultations: greeting, getting the patient seated, and confirming their identity (Robinson, 1998). She additionally mentions her awareness that the patient has just finished a night shift at work and there is brief discussion about this. The doctor then initiates a clinical focus for the encounter by referring to the details of the referral letter she received from the patient's General Practitioner. Altogether, within 35 seconds of the patient and doctor entering the room, the doctor begins initiating a clinical focus for the consultation.

cultural capability component of training, reciprocity was highlighted as an important principle when working with Aboriginal and Torres Strait Islander peoples. In the clinical yarning component of training, this principle of reciprocity was applied to social yarning as means for finding common ground between the patient and clinician. The non-Indigenous clinician who facilitated this part of the training explicitly explored how training participants could make such disclosures while maintaining professional boundaries with patients. Along with other training participants, the nurse from Fragment 1 practiced social yarning with an actor who simulated a Torres Strait Islander patient. A fragment of interaction with this actor-patient is considered next, as this training practice was congruent with the nurse's subsequent communication practice with an actual patient in a post-training consultation. The fragment from training starts immediately after the actor-patient and nurse have introduced themselves.

Fragment 2: Training: CL3/HP3046/23-04-2021/18:50-20:13

```
01 NUR     ...you've come in today so we can have a good old <ch:at> about
02         what's going on with your pa:in,=Are you from Sunny Ba:y?
03         (.)
04 PAT     No.
05 NUR     No. Have you travelled f:ar toda:y?
06         (0.2)
07 PAT     I caught a taxi:,
08 NUR     You caught a taxi,=
09 PAT     =∆Yeah.∆
            ∆nodds∆
10 NUR     And is your f:amily from around he:re? >Have you got< anyone
11         he:re that you've come to stay with [or? ]
12 PAT                                         [Uhm,] (0.2) I've got an old
13         autie.=
14 NUR     =+An old auntie. Um,+ (.) and- do you know S:unny Bay well?
            +nodding----------+
15         (0.4)
16 PAT     Not real[ly.]
17 NUR             [No.]=And you're okay with the rain today¿=You didn't
18         get too <wet?>
19 PAT     No:, I- I was in the: taxi, luckily befo:re it started raining.
20 NUR     That is good.=
21 PAT     =So, (.) a:fter I see you, I see my doctor straight away?
22 NUR     Um so how it works toda:y, is if- um if you're f:i:ne, with
23         having a chat with me, we'll sit down, and we'll talk about-
24         I've got l:ots of questions to go throu:gh, ∆(.hh) it seems a
   pat                                                  ∆smiling--->
25         bit da:unting, but we'll see how we go:, and see if (we) can get
26         through (.hh) a few of ∆them.∆∆ Um, I'll ask you lots of
   pat                           ∆nods--∆
                                   --->∆
27         questions about (.) where you pa:in i:s, and (.) how you're
28         fee:ling,
```

```
29          (0.2)
30 NUR      um tch and then from hERe, we- we- o:ften send people to an
31          education da:y, if you're happy with that.=And I will go through
32          all the (.) education stuff with y[ou,]
33 PAT                                        [ S:]o when (.) can I see a
34          doctor?
35 NUR      So: uhm, a:fter this interview with me:, (.) we often schedule
36          you to see one of o:ur (.) pain specia∆lists.
   pat                                              ∆puts hands on cheeks--->
37 PAT      (∆°O[hh.°)]
38 NUR      [∆U h m , ] (.) ∆did you want to see one of them toda:y did you?
   pat  --->∆.............∆palms together in front of mouth--->
39          (0.6)
40 PAT      Ye:a:h.∆=It's just really frustrating. ((continues))
               --->∆left hand on cheek, right hand on left wrist--->
```

In this fragment of interaction, the nurse engages in activities that are consistent with the training she has just received about social yarning. Rather than rapidly establishing a clinical focus for the interaction, as was the case in her pre-training consultation (Fragment 1), she instead first engages the actor-patient in conversation about a series of apparently non-clinical matters that resemble what has been described elsewhere as 'topicalised small talk' (Hudak & Maynard, 2011): the actor-patient's connection to 'Sunny Bay'[3] (lines 2-4), how far she travelled to get to the clinic (lines 5-8), her local family network (lines 10-14), her familiarity with the local area (lines 17-19), and the impact of the weather on her travel (lines 17-20). None of these discussions are explicitly linked to pain as a clinical focus for the consultation, but instead focus on the patient's life more broadly (Hudak & Maynard, 2011; Lin et al., 2016). From the outset of her engagement with the actor-patient, the nurse promotes talk that is consistent with her training in social yarning insofar as it displays holistic interest in the patient (Lin et al., 2016).

Although the nurse's conversation with the actor-patient about ostensibly social rather than clinical matters is consistent with her training in social yarning, there was no reciprocal exchange of information. For instance, after asking about the patient's connection to 'Sunny Bay', the nurse did not provide reciprocal information about her own connection to that place. After almost a minute and a half of talk that is unilaterally focused on the actor-

[3] This is a pseudonym for the name of the city where the consultation occurs.

patient, with no reciprocal talk about the nurse, the patient shifts the focus of the discussion by asking if she will see a doctor after the nurse (line 21). The nurse then explains what will happen (lines 22-32) but without mentioning when the patient will see the doctor. Following another question from the actor-patient about when she will see a doctor (lines 33-34), the nurse identifies that the patient may wish to see a doctor sooner than will be possible (lines 38-40). Shortly after this, the simulation is stopped, and the participants reflect on the process. In subsequent simulations, other clinicians are able to discover information about this actor-patient that are used to understand her urgency. For this simulation activity, however, unilateral focus on the actor-patient during across the opening moments of the encounter, coupled with the patient's ostensible urgency to see a doctor, meant that the nurse did not practice skills in reciprocal disclosure of information.

The next fragment comes from a consultation involving the same nurse and a different Aboriginal patient from her pre-training consultation (Fragment 1), recorded three and a half months after the nurse's training. In contrast to the nurse rapidly determining a clinical focus, as occurred in the nurse's pre-training consultation (Fragment 1), the next fragment shows how the post-training consultation includes communicative practices consistent with a core goal of social yarning and consistent with the nurse's communication with a simulated patient during training (Fragment 2): displaying an interest in the patient as a person to develop a relationship (Lin et al., 2016). Prior to this fragment, the nurse has asked the patient about her referral. Following this, the nurse explains the persistent pain service. Immediately prior to line 1, the nurse explains why she will be periodically looking away from the patient to type on her computer.

Fragment 3: CL3/HP3046/PT3133/12-08-2021/C1/01:41-02:48

```
01 NUR     An' you o- you okay today¿=>you made it< in all right¿
02         Δ(.)
   pat     Δnodding---->
03 PAT     ⌂Ye⌂h.
           ⌂-┬⌂
             └>raises eyebrows
04 NUR     Yeah.Δ Ho-
   pat      --->Δ
05 PAT     >Had Δto< [pa:rk in the ca::r] pa:rk,=Δ
                     Δraises eyebrows, rolls eyes-----Δ
.
```

```
.          ((23 seconds omitted; talk about hospital car parking))
.
33 NUR     Have you got f:amily at home waiting for [you¿=°or,°]
34 PAT                                              [>Yeh  yeh<]
35         (.)
36 PAT     +Got a <bro>+ther at home.
   nur     +nodding----+
.
.       ((12 seconds omitted; talk about caring for brother))
.
52 NUR     =But you're here to look after yourΔs:elf toda:y,Δ
   pat                                      Δ-------------Δ
                                             └>raises eyebrows,
                                               nodding
53         (0.6)
54 NUR     [(        )]
55 PAT     [(Yes      ]  )
56         (0.2)
57 PAT     ↑>h[eh huh!<↑]
58 NUR        [Are   you] f:rom Su:nny [Bay, ]
59 PAT                                [Yeah.]
60         (.)
61 PAT     °Yeh.°=
62 NUR     =A Sunny Bay gi:rl,
63         (.)
64 NUR     An[d  your   f:amil:]y:?
65 PAT       [Bho::rn and bred.]
66 PAT     Sorry?
67 NUR     Your family all:: Sunny B[ay, ]
68 PAT                              [A:LL] Su:nny: Bay °yeah.°=
69 NUR     All Sunn- wo:↑:↑w,
70 PAT     Mm+::.
   nur       +looks at computer--->
71         (.)
72 NUR     +That's †(pretty        )+†
       --->+looks at patient--------+looks at computer--->>
                  †.................†moves chair toward computer--->
73         (0.4)†
   nur      --->†
74 NUR     So you haven't travelled from fa::r then:,
75 PAT     Nh:O::pe.
76 NUR     Ok[:ay now-    ] (0.2) I'm gonna a:sk you >just about<
77 PAT       [°>huh heh.<°]
78 NUR     your pa:in,
```

The consultation recorded with this nurse post-training (Fragment 3) contrasts with the nurse's pre-training consultation (Fragment 1) in ways that are consistent with what the nurse experienced in training (Fragment 2). In Fragment 1, the nurse established a clinical focus almost from the very outset of the consultation. Fragment 3 contrasts with this. Consistent with what she practiced with the actor-patient during simulation training (Fragment 2), the nurse first engages the patient in an ostensibly social discussion, on this occasion about how the patient got to the consultation (from line 1), the patient's family (from

line 33) and the patient's place of origin (from line 58). Prior to focusing on clinical matters (lines 76-78), the nurse promotes talk that is consistent with her training in social yarning and with the social yarning she practiced in her interaction with the actor-patient during training (Fragment 2).

There is complexity to the nurse's practice in Fragment 3 that resonates with her learning opportunities. The cultural capability component of training highlighted the importance of reciprocity between the patient and clinician. The clinical yarning component emphasised the importance of reciprocity as means for finding 'common ground' during social yarning (Lin et al., 2016). There is no clear indication of such reciprocity in Fragment 3. For instance, following talk about the patient's connection to 'Sunny Bay', the nurse does not reciprocate by disclosing her own connection to that or another place.[4] Although this unilateral discussion about connection to place is incongruent with what was taught in the instructional phase of training, the nurse's practice is strikingly consistent with the social yarning she practiced during simulation training. In that activity, she was able to ask the simulated patient where she was from but did not provide reciprocal information about herself (Fragment 2; lines 1-16). Comparing the nurse's practice during training and post-training indicates how the aspects of social yarning the nurse practiced during training were consistent with the communication practices she both did and did not use in her post-training consultation.

Clinical yarning typically begins with social yarning, recognising that social connectedness is often an important precursor to discussing other matters involving Aboriginal and Torres Strait Islander peoples (Bessarab & Ng'andu, 2010; Lin et al., 2016). Clinical yarning is also person-centred, recognising that communication should be

[4] What is observed in Fragment 3 is consistent with what was observed in another post-training consultation. That consultation involved a clinician who was recorded in a post-training consultation but not a pre-training consultation. Like the nurse in Fragment 3, the clinician in the other post-training consultation asks about the patient's connection to the local place but does not reciprocate by disclosing her own connection to that place. On this occasion, this may be due to the clinician having travelled from her usual place of work and residence to staff a clinic in the patient's local community. Nevertheless, she does not disclose to the patient the location of her usual place of work and residence and her connection to that place.

responsive to individual patients. This can mean that consultations do not necessarily commence with social yarning (Lin et al., 2016). Fragment 4 is an example of this. It comes from the initial moments of a post-training consultation between a doctor and an Aboriginal patient. It contrasts with Fragment 3, where the nurse had the opportunity to engage with the patient in ways that are consistent with social yarning. In Fragment 4, the patient immediately launches into presenting his medical problem. He apparently initiated this activity soon after encountering the doctor and is already partway into establishing a clinical focus for the consultation while the researcher ('res' in the transcript) is still setting up the recording equipment. The doctor aligns with the patient's focus on his medical problem, rather than pursuing activities consistent with social yarning.

Fragment 4: CL1/HP2029/PT2129/07-10-2021/C1/00:05-03:12

```
01 PAT     Δ*I can't touch that shit.
   pat     Δ>>gesturing to abdomen--->
   res      *>>setting up recording equipment--->
02 DOC     Yep.
03         (0.8)
04 PAT     (And it's) a:ll (down,) (0.4) likeΔ (0.3) >when< I: °uh-° (0.6)
                                         --->Δ
05 PAT     if I:'m just rel:a:xed and (     ) calm(ed) (.) that- (0.3)
06         Δ(           ) feels like I've been: (.) Δba:shed with a ba:t.Δ
           Δgesturing to abdomen--------------------Δ,,,,,,,,,,,,,,,,,,,,Δ
07 DOC     Mm::.
08 PAT     *L:ike (.) l::iterally.
   res --->*walks toward door--->
.
.      ((2 minutes and 16 seconds omitted; talk about pain))
.
76 PAT     You know (.) Δand I: kno:w this'll go aw:ay,
                        Δgesturing to abdomen--->
78 DOC     Yep.
79         (0.3)
80 DOC     Yeah yea[:h. ]
81 PAT             [It's] just (0.2) a: matter of ti:me,
82 DOC     Ye#a:h:.#
83         (0.2)
84 PAT     when it will.
85         (.)
86 DOC     Yep.
87         (0.4)Δ(0.6)
   pat      --->Δ
88 DOC     >You know< those pa:in pa:thways:, they're like (0.4) they're
89         like pathways through the bush:.=You know like when you're:
90         (0.2) when- (.) when you wa:lk (.) when you wa:lk those
91         pa:thways every da::y,
92 PAT     Yeah.
93 DOC     A:ll day every da:y, they get >they get< really (.) well
94         gro:und in,
95         (0.2)
96 PAT     Yeah.=
```

```
97 DOC     =And it gets e:asier to feel: (0.4) e:asier to feel that pa:in
98         a:ll the ti[:me. ]
99 PAT                [Ye:ah] well that's [what I'm s::ayin:',]
```

The fragment commences with the patient partway through his description of ongoing abdominal pain following surgery. His description continues for more than two and a half minutes. During this time, the patient describes his pain through an extended telling. The doctor aligns as the recipient of the patient's telling by only producing minimal responses that display an understanding that the telling is not yet complete (Gardner, 2001; Sacks, 1995; Schegloff, 1982; Stivers, 2008). Allowing the patient to produce an extended telling is consistent with the doctor's training about diagnostic yarning, which involves the clinician listening to a patient's health story (Lin et al., 2016).

In Fragment 4 it is the patient who ultimately facilitates the ending of his extended telling about his pain. He appears to start this at line 76, when he makes an optimistic projection: *"I know this'll go away."* Optimistic projections can be treated as implicating the closure of extended tellings (Holt, 1993; Jefferson, 1988), and the patient appears to be using this practice to possibly complete the problem he has been describing (Robinson & Heritage, 2005). This becomes further apparent when he reproduces a version of his optimistic projection (*"It's just a matter of time"*, line 81), and then an incremental expansion that recompletes his turn (*"…when it will"*, line 84), thereby further displaying the possibility of his telling being complete (Schegloff, 2016). Following another minimal response from the doctor (*"Yep"*, line 86), silence emerges (line 87). It is only after this, almost three minutes into the consultation, that the doctor initiates a more extensive turn at talk than he has produced thus far.

When the doctor eventually makes a substantial contribution to the conversation, he does so in a way that is consistent with his training about diagnostic yarning: listening to a patient's health story while interpreting through a biomedical perspective (Lin et al., 2016). He does so using a simile to explain persistent pain: *"Those pain pathways…they're like pathways through the bush…When you walk those pathways every day…they get really well*

ground in" (lines 88-101). Reference to 'the bush' (line 89) establishes a story that may have a specific or general cultural relevance. It may be relevant to the patient due to the importance of place (usually referred to as 'Country') in Aboriginal and Torres Strait Islander cultures (Jones et al., 2020; Lin et al., 2016). Nevertheless, 'the bush' also has relevance for settler Australians (Bromhead, 2011), which means this need not necessarily be understood from an Aboriginal or Torres Strait Islander perspective. This general relevance may be well suited to a context in which the clinician may not yet understand the patient's cultural identity. Using this bush simile for persistent pain is consistent with the clinical yarning approach, which recommends clinicians use stories and metaphor to provide a biomedical perspective in ways that relates to patients' life experiences (Lin et al., 2016). The patient aligns with the doctor's approach, agreeing with the characterisation that the doctor has made (*"Yeah, well, that's what I'm saying"*, line 99).

Detailed analysis of Fragments 3 and 4, which both occur following the communication training intervention, indicate these are organised in fundamentally different ways. Although Fragment 3 commences with practices that are consistent with social yarning, Fragment 4 commences with a problem presentation that is more consistent with diagnostic yarning (Lin et al., 2016). This diversity of practice is consistent with the clinical yarning framework (Figure 1), which can be flexible and responsive to specific encounters with individual patients. This highlights how training may enhance communication practice in ways that manifest in diversity rather than consistency.

Patient Ratings of Healthcare Experience

Based on the inclusion criteria for analysing survey data described earlier, subsamples of 6 clinicians (10.5%) and 20 individual patients (33.3%) were included. The flow of potential and actual participants into the subsample that was ultimately used for analysis is shown in Figure 2. The clinicians were mostly female (66.7%) and their mean age was 36 years (SD = 9.16). Most clinicians reported having previous cultural training (66.7%). During the evaluation period (August 2020 – August 2021), these clinicians collectively conducted 96 consultations with Aboriginal or Torres Strait Islander patients.

Figure 2

Recruitment flowchart

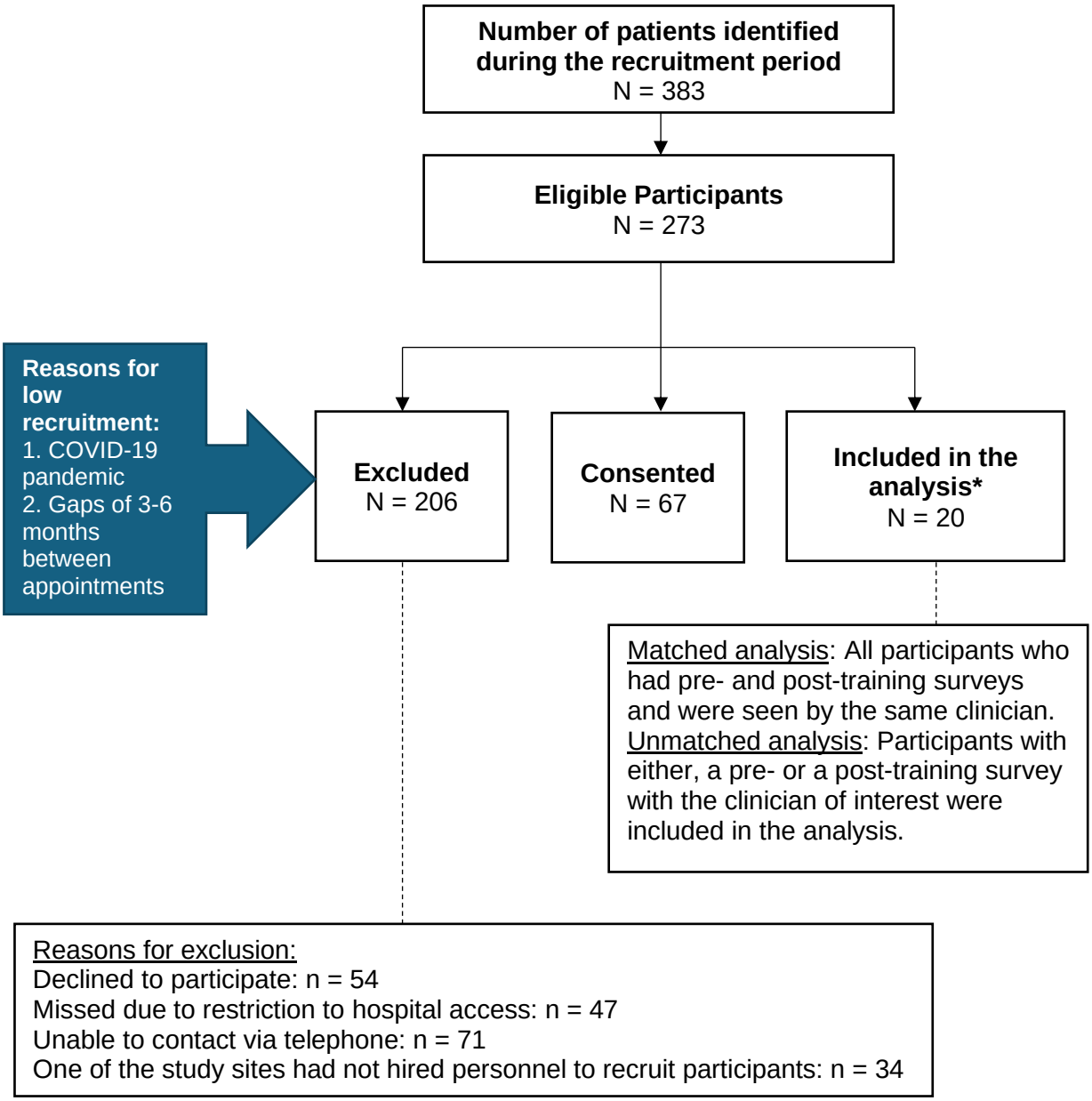

Table 1 shows the breakdown of the patient cohort according to eligibility and recruitment. Overall, the total sample of patients recruited for the study (n=67) and subsample (n=20) were similar to the group of all patients eligible to participate in the study (N=273) and patients who did not participate in the study (n=206) with regards sex and Indigenous status. However, results showed the group of all patients who were eligible to participate and the group of patients who did not participate in the study were younger when compared to the subsample of Aboriginal and Torres Strait Islander patients whose data

were analysed. In the subsample of patients, 90% identified as an Aboriginal person and 5% as a Torres Strait Islander, and 5% as both Aboriginal and Torres Strait Islander (mean age = 57 years (SD = 13.07)). Participating patients were distributed evenly by sex. The majority (70%) were patients at the metropolitan persistent pain clinics. Collectively, these patients completed 25 surveys.

Table 1

Comparison of the Available Sample and Analysed Subsample

Patient Characteristics	**Patients who completed survey**	**Patients with matched/ unmatched pre and post training survey**
	N=67 (%)	**N=20 (%)**
Age group		
18-20 y	-	-
21-40 y	9 (13.4)	2 (10)
41-60 y	41 (61.2)	10 (50)
61-80 y	17 (25.4)	8 (40)
Mean age (SD)	53.3 (11.7)	56.7 (13.1)
p-value		0.268 [a]
Sex		
Male	30 (44.8)	11 (55.0)
Female	37 (55.2)	9 (45.0)
p-value		0.422 [b]
Indigenous status		
Aboriginal	58 (86.6)	18 (90.0)
Torres Strait Islander	4 (6.0)	1 (5.0)
Both	5 (7.5)	1 (5.0)
p-value		1.000 [c]

Note. There were no differences in mean age (two-tailed *t-test*), sex (*Chi-square*) and Indigenous status (*Fisher exact test*) between the total group of patients who completed surveys and the subsample included in the analysis below.

[a] Results of a t-test to check if there was a difference between the mean age of the patients who completed the survey and the patients included in the analysis of matched and unmatched pre and post-training surveys.

[b] Results of a chi-square test to check if there was a difference in the proportion of males/females among patients who completed the survey, compared to the patients included in the analysis of matched and unmatched pre and post-training surveys.

[c] Results of a Fisher exact test to check if there was a difference in the proportion of patients according to Indigenous status among the patients who completed the survey compared to the patients included in the analysis of matched and unmatched pre- and post-training surveys.

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Table 2

Pre- and Post-Training Median Cultural Safety Survey (CSS) Scores

	Cultural Safety Survey (CSS) Domains											
	Positive Communication (Max=15)		Negative Communication (Max=12)		Trust (Max=15)		Environment (Max= 9)		Support (Max=6)		Overall CSS score (Max=57)	
Training	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Pos**
Unmatched (N = 15	14.5	*14.0*	12.0	*11.0*	15.0	*14.0*	9.0	*9.0*	6.0 [a]	*6.0*	54.5	*53.0*
Mann-Whitney U p-value	***0.859***		***0.513***		***1.000***		***1.000***		***0.594***		***0.594***	
Matched (N = 5 pairs)	15.0	*14.0*	11.0	*12.0**	15.0	*15.0*	7.0	*9.0*	6.0	*6.0*	54.0	*56.0*
Wilcoxon Signed Ranks p-value	***1.000***		***0.083***		***0.655***		***0.180***		***0.655***		***0.461***	

Note. This table reports pre- and post-training median Cultural Safety Survey (CSS) scores for each of the five domains and the overall CSS score on the modified CSS, based on completed unmatched and matched surveys, as well as the maximum possible score (max) for each domain and the overall CSS score.

[a] Constant values = all participants had the same score in this domain.

Table 2 shows the median scores in the pre- and post-training periods for unmatched and matched surveys. There were no statistically significant differences in the medians by domain nor in the overall score of the modified CSS pre- and post-training.

Discussion

Recognising the need to reduce health disparities between Aboriginal and Torres Strait Islander peoples other peoples who live in Australia (Productivity Commission, 2022), communication challenges are a prominent reason Aboriginal and Torres Strait Islander peoples do not access care (Lin et al., 2018; Nolan-Isles et al., 2021). The current study examined whether cultural capability and clinical yarning training for persistent pain clinicians changed communication practice and how Aboriginal and Torres Strait Islander patients experienced healthcare. Despite observing changes in communication practice that were consistent with the training intervention, no differences in patient-reported experience of healthcare were found.

The inconclusive results of this study are consistent with the recognised challenges of understanding how clinician-patient communication affects health outcomes (Street et al., 2009). Nevertheless, the current study highlights the importance of direct observation to determine whether changes occur in clinical communication following complex interventions such as training. Our previous research found clinicians reported improved knowledge, confidence, and ability to communicate with Aboriginal and Torres Strait Islander patients following cultural capability and clinical yarning training (Bernardes et al., 2023). The findings of the present study support this finding, showing clinicians employing communication practices in post-training consultations that are consistent with those taught in training. As cultural training becomes increasingly common in and beyond Australia (Clifford et al., 2015; Hardy et al., 2023; MacLean et al., 2023; Rissel et al., 2023; Truong et al., 2014), findings such as these are important to increase confidence that training can lead to meaningful changes in practice. Implementing cultural training such as clinical yarning requires an approach to communication that foregrounds storytelling (Bessarab & Ng'andu, 2010; Lin et al., 2016; Rheault et al., 2021). Accomplishing this may require fundamental changes to

communication practices typical in Western healthcare, such as using relatively succinct sequences of action, like question-response sequences designed to inform a diagnosis (Boyd & Heritage, 2006; Heritage, 2010). The findings of this study are noteworthy because they demonstrate that such changes are possible in routine clinical practice.

In addition to observing changes in practice following training, the findings of this study also show that not all elements of the training – such as the importance of reciprocity, which was introduced in the cultural capability component of training – were applied in clinical practice. This incomplete application of the training may account for the finding in the current study that patients' self-reported experience of cultural safety did not change following the intervention. These findings further reinforce the importance of using direct observation to monitor the impact of training. This monitoring can occur during training itself, where experiential learning activities such as conversations with simulated patients should be closely monitored to ensure learners are provided opportunities to practice all skills crucial for meeting the learning outcomes of training. Monitoring using direct observation can also occur in post-training consultations with actual patients. This will determine whether clinicians can effectively implement training in routine practice. Where implementation is partial, this could be addressed by refining the training offered to future participants, or by offering follow-up activities to support clinicians to comprehensively implement training in their practice. The study findings therefore show how before, during, and following training, direct observation can enhance continuous improvement by highlighting aspects of a training intervention that may need modification to enhance implementation.

Beyond the practical benefits of using direct observation to refine and enhance training, use of these data also brings methodological benefits to evaluating cultural training interventions, which are usually limited by an overreliance on self-report data (Clifford et al., 2015; Hardy et al., 2023; MacLean et al., 2023; Truong et al., 2014). For instance, a recent scoping review of 134 articles reporting cultural training or educational programs across health, education, and social work found most evaluations focused on using self-report data, with very few using observational methods (MacLean et al., 2023). Among the included

studies that did employ observational methods, most used these to examine the training or educational process (Alexander-Ruff & Kinion, 2018; Fleming et al., 2017; Thackrah & Thompson, 2013; Thackrah & Thompson, 2018), with one study using observational methods to examine the impact of training on subsequent practice (Browne et al., 2018). Three of these articles report studies conducted in Australia to evaluate cultural training or education for practitioners working with Aboriginal and Torres Strait Islander peoples (Fleming et al., 2017; Thackrah & Thompson, 2013; Thackrah & Thompson, 2018). The findings from the current study therefore contribute to a small number of studies demonstrating the unique potential for using observational methods to enhance the evaluation of cultural training and its outcomes.

The findings of our previous research, which underpinned the communication training intervention, identified some Aboriginal and Torres Strait Islander people did not believe their expectations for a persistent pain consultation aligned with the expectations of the clinician that they consulted (Bernardes, Houkamau, et al., 2022). This is consistent with other research finding Aboriginal people report an expectation that they should adjust how they communicate to accommodate communication typical within Western healthcare (Kerrigan et al., 2024). This may explain why some participants (e.g., the patient in Fragment 4) initiated consultations in ways that are consistent with the typical organisation of consultations in Western healthcare (Robinson, 1998). Regardless of the cause of this difference, the clinical yarning framework enables clinicians to flexibly respond to specific encounters with individual patients (Lin et al., 2016). Among other things, understanding a patient's connection to culture – or cultures – including their familiarity and comfort with Western healthcare (Morgan et al., 1997; Sheldon, 2001), may help clinicians determine how to implement approaches such as clinical yarning in routine practice with individual patients.

Finding that a cultural capability and clinical yarning intervention did not result in changes in patients' self-reported experience of cultural safety may be attributable to an incomplete application of the training in clinical practice, but this finding could also reflect the

broad focus of the measurement tool that was used (Elvidge et al., 2020). There were also challenges during the recruitment of patients, including the impacts of the COVID-19 pandemic (requiring many patients to be interviewed over the telephone, increasing the risk of recall bias), a small sample size due to the need to obtain consent from both patients and clinicians, and a shorter post-training data collection period at one of the study sites. In addition, the survey could not be used in a way that ensured pre- and post-training evaluations for the same clinician by the same patient, thus enabling a direct comparison of the patient's experience with that clinician pre- and post-training. Scores approached the upper limit on most domains of the CSS prior to training, leaving little scope for improvement post-training. It is possible that the services where training was provided, or more specifically the clinicians who attended training, were already providing care that patients perceived to be culturally safe. Future interventions could use the CSS to identify services with lower scores to identify priorities for training. Because the CSS was not formally adapted for use in Aboriginal and Torres Strait Islander communities in Queensland, another possibility is that it does not appropriately measure cultural safety in the context where it was used. Finally, the analytic approach was conservative, focusing on six clinicians and only using one pre- and/or post-training survey per patient for a given clinician. This resulted in a small sample that was followed up within a relatively short timeframe. These potential limitations in study design should be used to inform the design of future interventions.

Although communication is an essential component of healthcare (Makoul et al., 2024; Rider et al., 2014; Street et al., 2009), a patient's communication experience with a single clinician on one or few occasions is unlikely to be reflected in global measures of experience that encompass communication more broadly and other components of healthcare (Street et al., 2009), including cultural safety (Elvidge et al., 2020). This highlights the need to ensure communication interventions are evaluated using measures that precisely correspond to aspects of practice that are the target of intervention. A scarcity of suitable measures remains a considerable challenge to understanding healthcare outcomes for Aboriginal and Torres Strait Islander peoples (Green et al., 2021; Ryder et al., 2022;

Williams, 2018). The small number of patients in the study who consulted the same clinician both pre- and post-training also suggests there may be scope to increase the proportion of patients consulting the same clinician over time, although this can be difficult with rotation of certain staff, such as medical registrars. If patients could consult the same clinician, this would provide opportunity for clinical yarning to occur over time, which may enhance cultural safety.

The findings of this study indicate ways communication interventions might be evaluated through future research. Findings from video recordings of communication in pre- and post-training consultations combined with recordings of the training process demonstrates the potential for using these data to evaluate whether communication training interventions can be operationalised in clinical practice. Direct observational methods should more commonly be used to understand whether and how communication training interventions facilitate change in practice. This is important for research, but also training delivery, where direct observation can inform continuous improvement. Although there remains scope to augment such materials with data generated through validated and appropriately targeted scales, the findings of the present study highlight the importance of ensuring these measures closely correspond to the target of a training intervention. Overall, the study findings demonstrate the potential for cultural training to change communication in routine clinical practice, alongside the need for ongoing research to enhance the design and delivery of such training.

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Appendix A: Transcription Conventions

Participant labels

PAT	Labels in upper case indicate lines that transcribe vocal conduct.
pat	Labels in lower case indicate lines that transcribe body-behavioural conduct. If such a label is absent, this means that the embodied action belongs to the speaker of the immediately above line in the transcript.

Temporal dimensions

Wo[rd] [Wo]rd	Square brackets mark speaker overlap, with left square brackets indicating overlap onset and right square brackets indicating overlap offset.
Word=word	An equals sign indicates absence of discernible silence between two utterances, which can occur within a single person's turn or between the turns of two people.
Word (0.4) word	A number within parentheses refers to silence, which is measured to the nearest tenth of a second and can occur either as a pause within a current speaker's turn or a gap between two speaker's turns.
Word (.) word	A period within parentheses indicates a micropause of less than two-tenths of a second.

Vocal conduct

Word.	A period indicates falling intonation at the end of a unit of talk.
Word,	A comma indicates slightly rising intonation.
Word¿	An inverted question mark indicates moderately rising intonation.
Word?	A question mark indicates rising intonation.
Word	Underlining indicates emphasis being placed on the underlined sounds.
Wo:::rd	Colons indicates the stretching of the immediately preceding sound, with multiple colons representing prolonged stretching.
Wo::rd	Underlining followed by one or more colons indicates a shift in pitch

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	during the pronunciation of a sound, with rising pitch on the underlined component followed by falling pitched on the colon component that is not underlined.
Wo:<u>:</u>rd	An underlined colon indicates the converse of the above, with rising pitch on the underlined colon component.
↑Word↑	Upward arrows mark a sharp increased pitch shift, which begins in the syllable following the arrow. An utterance encased with upward arrows indicates that the talk is produced at a higher pitch than surrounding talk.
°Word°	Words encased in degree signs indicate utterances produced at a lower volume than surrounding talk.
WORD	Words in capitals indicate utterances produced at a higher volume than surrounding talk.
#Word#	Words encased in hash signs indicate utterances produced with creaky voice.
>Word<	Words encased with greater-than followed by less-than symbols indicate talk produced at a faster pace than surrounding talk.
<Word>	Words encased with less-than followed by greater-than symbols indicate talk produced at a slower pace than surrounding talk.
Wor-	A hyphen indicates an abrupt termination in the pronunciation of the preceding sound.
heh huh	These are different ways of transcribing laughter tokens throughout the transcripts.
Whord	The letter ‘h’ can be used within words to indicate audible exhalation during the pronunciation of the word, giving it a ‘breathy’ quality.
.hhh	A period followed by the letter ‘h’ indicates audible mouth inhalation, with more letters indicating longer inhalation.

(Word)	Words encased within single parentheses indicate an utterance that was unclear to the transcriptionist. Blank space within single parentheses indicates that speech occurred but was completely unintelligible to the transcriptionist.
((Comment))	Double parentheses are used to enclose an explanation inserted by the transcriptionist.

Embodied conduct

+ +	Plus signs are used to encase descriptions of embodied action by a clinician.
△ △	Triangles encase descriptions of embodied action by a patient.
⌂ ⌂	House symbols are used to distinguish embodied action by a patient that co-occurs with other embodied action being encased with triangles.
* *	Asterisks encase descriptions of embodied action by a researcher.
△--->	An arrow indicates an action continues across subsequent lines,
---->△	until a corresponding arrow is reached.
>>	Two greater than symbols indicate an action commences before the beginning of the transcribed fragment.
--->>	A double arrow indicates an action continues until the end of the transcribed fragment.
....	Periods indicate the preparation of an action.
----	Dashes indicate the maintenance of an action.
,,,,	Commas indicate the retraction of an action.

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