

Cultural safety in hospitals: validating an empirical measurement tool to capture the Aboriginal patient experience

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Abstract.

Objective. The aim of the present study was to develop a scale to measure cultural safety in hospitals from an Aboriginal patient perspective.

Methods. The Cultural Safety Survey was designed to measure five key characteristics of cultural safety that contribute to positive hospital experiences among Aboriginal hospital patients. Investigators developed a range of different methods to assess the validity and reliability of the scale using a sample of 316 participants who had attended a New South Wales hospital in the past 12 months. Targeted recruitment was conducted at two hospital sites. Opportunistic recruitment took place through a local health district, discharge follow-up service and online via social media.

Results. The Cultural Safety Survey Scale was a robust measurement tool that demonstrated a high level of content and construct validity.

Conclusion. The Cultural Safety Survey Scale could be a useful tool for measuring cultural safety in hospitals from the Aboriginal patient perspective.

What is known about the topic? There are increasing calls by governments around the world for health institutions to enhance the cultural safety of their services as one way of removing access barriers and increasing health equity. However, currently there are no critical indicators or systematic methods of measuring cultural safety from the patient perspective.

What does this paper add? The cultural safety scale, an Australian first, presents the first empirically validated tool that measures cultural safety from the Aboriginal patient perspective.

What are the implications for practitioners? This measurement model will allow hospitals to measure the cultural safety of their services and ascertain whether current efforts aimed to improve cultural safety are resulting in Aboriginal patients reporting more culturally safe experiences. Over time it is hoped that the tool will be used to benchmark performance and eventually be adopted as a performance measure for hospitals across New South Wales.

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Introduction

Australia has long been a multi-cultural country, inhabited for more than 60 000 years by hundreds of distinct tribal groups. For the purposes of this paper, we use the term ‘Aboriginal’ to denote the people who identify as those first peoples of

Australia¹ in preference to ‘Aboriginal and Torres Strait Islander’, in recognition that Aboriginal people are the original inhabitants of New South Wales (NSW), Australia. (This research was undertaken in NSW and thus the terminology is guided by the NSW Health Directive formulated following

advice from the Aboriginal Health and Medical Research Council of NSW. Reference to both Aboriginal and Torres Strait Islander people is spelt out where applicable.)

The gap between the health outcomes of Aboriginal and non-Aboriginal Australians has been widely documented, and addressing this gap remains a national health priority.² There is a large body of evidence that documents Aboriginal people's experiences of racism and discrimination in Australian hospitals (B. Patterson, G. Strong, P. Patterson, G. Creighton, E. Stewart, P. O'Mara, J. Sherwood, G. Fazio and M. Freund 2014, unpubl. data).^{3,4} In an attempt to address these disparities, culture-based approaches have been explored in the past decade as a way of incorporating social determinants of health considerations into policy and program decision making.^{5,6} It is widely acknowledged that cultural perspectives can affect both the care health workers provide and the experience of patients.^{7,8} In particular, cultural safety has been cited in health policy as a way of reducing Aboriginal health inequality and reorienting health services to improve equity of access.^{9,10} Cultural safety was first coined in Aotearoa in the late 1980s and arose out of the Māori people's discontent with mainstream health care. Initially, 'cultural safety' was defined as 'an environment which is safe for people, where there is no assault, challenge or denial of their identity and what they need'.¹¹ The concept of cultural safety was later adapted in the Australian context, where it centred on the subjective experience of the recipient of care and requires health service providers to be responsive to the different cultural needs of Aboriginal peoples and to be aware of how their own cultural values can influence the care they provide.¹² In a public consultation conducted by the Australian Health Practitioner Regulation Agency, the following definition of cultural safety was put forward:

Cultural safety is the individual and institutional knowledge, skills, attitudes and competencies needed to deliver optimal health care for Aboriginal and Torres Strait Islander Peoples as determined by Aboriginal and Torres Strait Islander individuals, families and communities.¹³

Cultural safety is a dynamic construct that can change depending on the community and context, and is ultimately determined by the patient and their family. Cultural safety requires staff to engage in reciprocal communication through genuine listening as the basis for building trust with patients in an effort to support greater patient autonomy and reduce the power differential.¹⁴ Therefore, cultural safety can be conceptualised as both an ethical standard of care and an outcome of the quality of care provided.^{15,16}

Internationally, cultural safety has formed part of health policy for many years through professional competencies, clinical practice standards and health service accreditation standards (*Health Practitioners Competence Assurance Act 2003* (New Zealand)).^{17,18} In Australia, cultural safety is gaining traction in health policies at local, state and national levels.⁹ There are frameworks that seek to define cultural safety from a policy¹⁹ and accreditation perspective.²⁰ Several models seek to conceptualise cultural safety in terms of workforce education and knowledge.^{21,22} However, currently there are no critical indicators or empirical measures of cultural safety from the patient perspective, despite a need to develop these having been identified.²³ Some scholars have recommended that more

research should be conducted using validated indicators to identify the significant combination of factors and optimal strategies underlying culturally safe health services for Aboriginal people.²⁴ It has also been suggested that internationally empirically validated tools²⁵⁻²⁷ that measure access and communication barriers, and perceived discrimination and trust, may be of use if adapted to the Australian context and individually tailored for Aboriginal communities.²⁸ Therefore, empirical research is necessary in order to bridge the gap between policy and practice in the measurement of cultural safety for Aboriginal patients. The aim of this study was to deploy and test a quantitative survey to develop a tool that measures cultural safety from the perspective of Aboriginal patients. For the purposes of this study, the research regarding cultural safety can be interpreted in the context of NSW hospitals.

Methods

Survey design

Previous research has successfully used factor analysis approaches to conceptualise similarly abstract multidimensional concepts, including cultural competence,²⁵ empathy,²⁹ collaboration,³⁰ trust³¹ and others,³²⁻³⁶ demonstrating reliable and valid measurement of these constructs. An exploratory factor analysis that included the key domains of cultural safety was undertaken; the domains were identified through a scoping review of the current Australian literature that defined the key indicators of cultural safety from the perspective of Aboriginal people (B. Patterson, G. Strong, P. Patterson, G. Creighton, E. Stewart, P. O'Mara, J. Sherwood, G. Fazio and M. Freund 2014, unpubl. data).^{3,37,38} In particular, a systematic review of Aboriginal narratives of culturally safe health care that included only studies containing Aboriginal respondents' views on accessing health care was used to identify the key indicators.³⁹ Five domains were identified that grouped the key characteristics of cultural safety: Domain 1, positive communication between patients and hospital staff; Domain 2, negative communication between patients and hospital staff; Domain 3, trust between patients and hospital staff; Domain 4, hospital environment; and Domain 5, support for Aboriginal families and culture.

These domains were operationalised and form the basis of survey questions, where their ability to measure cultural safety was tested. Using a staged development model, the draft survey underwent a process of review by subject experts in order to establish content validity.⁴⁰ A reference group was established that included primarily Aboriginal health professionals, academics, members of Aboriginal Community Controlled Organisations (ACCOs) and community members. The tool was then piloted and refined based on the feedback provided. The entire 23-item survey is provided in [Appendix 1](#), excluding demographic and open-text questions. Results from the open-text question will be presented in a separate qualitative analysis. Answers were set on four-point Likert scales with 'always', 'usually', 'sometimes' and 'never' as response options.

Recruitment

The study was approved by the Aboriginal Health and Medical Research Council of New South Wales (HREC Reference no. 1184/16) and the local health district (reference number

withheld to protect confidentiality). Participants who identified as Aboriginal and/or Torres Strait Islander and who had attended a NSW hospital in the past 12 months were invited to participate in the study. Targeted recruitment was conducted in two NSW hospital sites, primarily through Aboriginal Hospital Liaison Officers (AHLO) and staff in Aboriginal health roles. These targeted recruitment methods were included alongside broader opportunistic recruitment strategies, including a 48-h follow-up program, which is a local health district service where Aboriginal people with a chronic disease, who are admitted to hospital, then receive telephone follow-up from an Aboriginal health worker. Recruitment was also undertaken through social media, primarily Facebook and Twitter, using targeted advertisements and organic sharing through community groups. Using opportunistic recruitment, we were able to capture participants who attended additional NSW hospitals outside the targeted sites and combined these responses to create an 'other' hospitals category. Patients were offered a range of different ways to complete the survey, including online, over the telephone, in person or on paper. The survey contained 25 questions in total and took 5–10 min to complete.

Statistical analysis

Statistical analyses were conducted using SAS Version 9.42 (SAS Institute Inc., Cary, NC, USA). Prior to performing the exploratory factor analysis (EFA), the suitability of the data was assessed. The sample size and ratio of participants to questions criteria was adequate (over the recommended ratio 10 : 1, with 316 participants and 23 questions) to undergo the analysis. The Kaiser–Meyer–Olkin measure of sampling adequacy value was 0.8890, indicating that the data were suitable for EFA, which was performed on 23 items using 316 of 413 surveys. Ninety-seven observations were excluded because they had survey items incomplete or missing. External domain consistency was measured, whereby Cronbach's α was calculated for the entire scale, as well as for each domain (see Table 1), together with the correlation of each item with the domain total.

Results

The results of the statistical analyses reveal how the domain correlation is influenced by certain survey items. Generally, internal consistency was good for most of the domains. Survey items within Domains 1, 2 and 3 are well correlated and Domain 4 is strongly correlated with each other. Domain 5 had the lowest value of Cronbach's α (0.709), suggesting all items within this domain are measuring the same underlying construct.

A factor analysis was performed within each domain in order to ascertain whether a unidimensional factor was being measured. The individual survey items and the entire scale were checked for sampling adequacy using the Kaiser–Meyer–Olkin test. The number of factors to retain was assessed by the Kaiser >1 rule, by domain and then again overall. Factor loadings were extracted using the principal axis method with a Promax rotation, of the polychoric correlation matrix. In instances where the one factor structure was analysed, the structure was not rotated. The sample size assumed for the EFA corresponded to that of the smallest pairwise available correlation. The Kaiser eigenvalues suggest that two factors would be appropriate, but this is not

Table 1. Internal domain consistency measured with Cronbach's α
Questions (Q) are given in Appendix 1

Factor and items identified	Correlation as item is removed	Correlation with total
Factor all	0.934	
Domain 1: communication (positive)	0.830	
Q1	0.764	0.738
Q2	0.799	0.619
Q3	0.788	0.661
Q4	0.851	0.454
Q5	0.774	0.705
Domain 2: communication (negative)	0.799	
Q6	0.774	0.558
Q7	0.729	0.654
Q8	0.774	0.557
Q9	0.713	0.680
Domain 3: trust	0.865	
Q10	0.846	0.653
Q11	0.850	0.630
Q12	0.808	0.792
Q13	0.853	0.632
Q14	0.822	0.741
Domain 4: environment	0.768	
Q15	0.493	0.761
Q16	0.494	0.759
Q17	0.935	0.341
Domain 5: support for Aboriginal families and culture	0.709	
Q18	0.643	0.523
Q19	0.649	0.505
Q20	0.675	0.425
Q21	0.680	0.408
Q22	0.733	0.229
Q23	0.626	0.568

fully supported by the two-factor structure of the factor loadings. As seen in Table 2, the correlations for question (Q) 4, Q15, Q20, Q22 and Q23 with the other items ranged from poor to moderate. A five-factor model was tested with Q20, Q18, Q15 and Q11 of the 23 items all loading onto the first factor, in the two-, three-, four- and five-factor loadings respectively. The suggested five-factor model appears not to be an appropriate fit. There were no cross-loadings and changes in the survey could potentially improve the results. Q22 'How often did your family visit you in hospital?' was removed from the analysis because it was decided that this item did not accurately capture the intended measure in Domain 5 (support for Aboriginal culture and families) and did not belong in the survey or in its respective domain. The rationale for this was that the phrasing of the question was too subjective because it assumes the frequency of family visits is a direct reflection of the cultural safety of the hospital, and does not consider other possible contributing factors, such as access to transport or the dynamics between the patient and family. In order to improve the results, two- to four-factor variations with item Q22 removed were tested. The four-factor solution was adopted because it provided the most appropriate model and is presented in Table 2, with the corresponding factors bolded.

Separate to the EFA, survey responses were collated by adding the assigned values for each response (0, never; 1, sometimes; 2, usually; 3, always) for the positively weighted items, and these values were reversed for the negatively weighted items (Q6, Q7, Q8, Q9, Q17 and Q19). The total values were added for individual surveys to give a Cultural Safety Score (CSS). The mean CSS for each site is presented in Table 3, along with the percentage of patients offered the opportunity to speak with an AHLO. The *P*-values for the offered AHLO are the Chi-squared *P*-values when comparing the offering of respective site to the other two sites combined, whereas analysis of variance (ANOVA) *P*-values are shown when comparing the mean CSS for the respective site to the other two sites combined.

Across the hospital sites, Site 2 had the highest CSS (31.22), as well as having the highest percentage of patients being offered

Table 2. Factor loadings (four-factor structure with 22 items; item Q22 removed)

Bolded entries indicate the corresponding factor onto which the item loaded; a threshold of 0.4 was utilised

Item	Factor 1	Factor 2	Factor 3	Factor 4
Q1	0.40	0.29	0.03	0.00
Q2	0.53	0.23	0.02	0.00
Q3	0.61	0.14	0.01	0.01
Q4	0.01	1.00	0.01	0.00
Q5	0.34	0.30	0.05	0.00
Q6	0.14	0.72	0.00	0.00
Q7	0.93	0.02	0.01	0.00
Q8	1.00	0.01	0.01	0.00
Q9	0.25	0.27	0.04	0.07
Q10	0.51	0.16	0.06	0.00
Q11	0.20	0.38	0.06	0.03
Q12	0.24	0.40	0.05	0.01
Q13	0.05	0.64	0.05	0.03
Q14	0.27	0.36	0.06	0.00
Q15	0.02	0.03	1.00	0.00
Q16	0.03	0.03	0.98	0.00
Q17	0.71	0.04	0.01	0.04
Q18	0.39	0.27	0.04	0.01
Q19	0.42	0.13	0.08	0.03
Q20	0.01	0.00	0.00	0.95
Q21	0.00	0.00	0.00	1.00
Q23	0.55	0.16	0.01	0.02

the opportunity to speak with an AHLO (Domain 5), followed by Site 1 and the Other hospital combined category. At each site there was a significant difference between the site and other sites combined. Assessing the percentage of patients who were asked whether they would like to see an AHLO is valuable information because we know that these positions play a key role in brokering trust, communication and addressing the cultural needs of patients.^{41–44} These scores are significant and could be used as part of an overall measure to benchmark hospital performance.

Discussion

Overall, the survey was a successful first step in developing a robust measurement model of cultural safety. This study demonstrated that cultural safety is a complex and multidimensional construct that can be validly and reliably measured from Aboriginal patient experiences in hospitals. The results from the four-factor analysis showed that the measurement model has sufficient levels of both internal and external domain consistency. The findings from the study could also be considered by participating hospital sites to identify areas that may benefit from strategic enhancement of cultural safety.

Increasingly, government health organisations and ACCOs have identified the need to improve the cultural safety of the healthcare system. To date, there has been no research that demonstrates a reliable measure of cultural safety. The findings from the present study can be used in hospitals as one way of empirically measuring cultural safety from the perspective of Aboriginal patients. It offers a pragmatic approach for developing critical indicators of cultural safety and filling the significant literature and policy gaps identified. Furthermore, the results from this study present a feasible method for sourcing and collating community feedback that aligns with national hospital accreditation standards by giving patients a voice in how health services are assessed and designed. With further development and implementation, the results from wider research could be used to measure, monitor and benchmark hospital performance overtime.

Limitations

The results from the present study are limited in generalisability for several reasons. First, communities outside of NSW may define cultural safety differently. In addition, the findings may reflect the practices at the sites that were involved, which are

Table 3. Access to Aboriginal Hospital Liaison Officer (AHLO) and cultural safety scores (CSSs)

The CSS was calculated by adding the total values for individual surveys for the two targeted New South Wales (NSW) hospital sites (Sites 1 and 2) separately, in addition to 'other' hospitals, which consisted of additional NSW hospitals outside the targeted sites to produce a Cultural Safety Score (CSS). The mean CSS for each site (versus its combined counterparts) is presented in the table below, where higher scores indicate patients reporting better cultural safety in those sites

Hospital site	% Patients offered AHLO	AHLO <i>P</i> -values ^A	CSS	CSS <i>P</i> -values ^B
Site 1 (vs not Site 1)	51	<0.0001	26.26 (vs 22.02)	0.0152
Site 2 (vs not Site 2)	54	0.008	31.22 (vs 22.17)	<0.0001
Other hospitals combined (vs Site 1 and 2)	16	<0.0001	19.61 (vs 27.77)	<0.0001

^AChi-squared.

^BANOVA.

shaped by particular state health policies. Therefore, before generalising the findings it is necessary to work with individual communities first in order to find out whether the model presented would be an appropriate measure. Reproducing the study in other locations, including in other states, would clarify whether different health policy frameworks affect the results. Second, although the survey was developed using a rigorous process, some participants may have alternative views that are not captured by the scale. However, the responses to the open-ended questions, social media comments on posts and conversations during face-to-face or telephone-administered surveys could be used to identify any significant issues not captured by the survey questions. Third, those participants who chose to take part in this survey could potentially represent a select group who have had either very negative or positive hospital experiences. Demographic factors such as sex, age, education and location need to be explored in order to establish whether these factors have played a role in shaping these findings. Further detailed analysis of participant recruitment methods would determine whether the different types of recruitment and methods of completing the survey affected participant demographics or responses. Future studies could consider making revisions to the wording of Question 22 (see [Appendix 1](#)) in order to try to capture a more appropriate measure of support for families. For example, revised survey items for this domain could focus on the extent to which hospitals facilitate family involvement and support. Finally, more in-depth qualitative research into what constitutes cultural safety for Aboriginal families is also necessary for the development of another complementary tool. Considering the exploratory nature of the present study, the potential limitations that we have identified do not detract from the significance of the findings. Furthermore, this study will be followed-up with larger studies using confirmatory factor analysis to further validate these conclusions.

Conclusion

Despite concerted efforts, Aboriginal health disparities have continued to widen. Health policies that mandate cultural safety have proved challenging for health services to implement because there are no critical indicators or measures. The absence of tools for quantifying cultural safety makes it impossible for hospitals to objectively assess whether or not the services they provide are, in fact, deemed to be culturally safe by the recipients of care. The purpose of this study was to address this gap between the policy and research to make it possible for hospitals to evaluate the cultural safety of their services from the Aboriginal patient perspective. The developed consensus around cultural safety is that it can only be assessed by Aboriginal patients, their families and communities; therefore, there is no other means to assess cultural safety. This approach aligns closely with the second edition of the National Safety and Quality Health Service Standards,⁴⁴ which calls for genuine consumer and community engagement. Ultimately the cultural safety scale is designed to make health services directly accountable to the Aboriginal communities they serve. These findings represent the first ever empirically validated measure of cultural safety and, as such, offer a sound basis for further studies to apply these findings in a broader context.

Competing interests

None to declare.

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Appendix 1. Cultural safety survey items

Please note additional demographic and qualitative items are not included; the full list of survey items can be obtained from the authors

Domain	Question	Response options
Domain 1: communication (positive)		
Q1	During your stay in hospital, how often did the hospital staff listen carefully to you?	Never, sometimes, usually, always
Q2	Were you able to talk to hospital staff about any health questions or concerns?	Never, sometimes, usually, always
Q3	How often did hospital staff give you easy to understand information about your condition or concerns?	Never, sometimes, usually, always
Q4	How often did hospital staff seem to know the important information about your medical history?	Never, sometimes, usually, always
Q5	How often did hospital staff show respect for what you had to say?	Never, sometimes, usually, always
Domain 2: communication (negative)		
Q6	How often did hospital staff interrupt you when you were talking?	Never, sometimes, usually, always
Q7	How often did hospital staff rush or talk too fast with you?	Never, sometimes, usually, always
Q8	How often did hospital staff explain your treatment in a way that was difficult to understand?	Never, sometimes, usually, always
Q9	How often did hospital staff talk down to you or use a rude tone or manner with you?	Never, sometimes, usually, always
Domain 3: trust		
Q10	How often did hospital staff spend enough time with you?	Never, sometimes, usually, always
Q11	Do you feel like you can tell hospital staff anything? Even things that you might not tell anyone else?	Never, sometimes, usually, always
Q12	Do you trust the hospital staff with your medical care?	Never, sometimes, usually, always
Q13	Do you feel that the hospital staff will always tell you the truth about your health, even if there is bad news?	Never, sometimes, usually, always
Q14	Do you feel that the hospital staff really care about your health?	Never, sometimes, usually, always
Domain 4: environment		
Q15	Were the receptionists at this hospital as helpful as you thought they should be?	Never, sometimes, usually, always
Q16	How often did the receptionists at this hospital treat you with courtesy and respect?	Never, sometimes, usually, always
Q17	How often have you felt uncomfortable in the hospital environment?	Never, sometimes, usually, always
Domain 5: support for Aboriginal families and culture		
Q18	Do you feel that hospital staff genuinely respect your cultural values and practices?	Never, sometimes, usually, always
Q19	How often have you felt unfairly treated at this hospital because of your race or cultural background?	Never, sometimes, usually, always
Screening questions	During your time in this hospital, were you ever asked if you would like to talk to the Aboriginal Hospital Liaison Officer?	Yes, no, not sure, other
	Would you like to have been able to talk to the Aboriginal Hospital Liaison Officer?	Yes, no, not sure, other
Q20	During your time in this hospital, how often have you been able to talk to the Aboriginal Hospital Liaison Officer?	Never, sometimes, usually, always
Q21	After talking to the Aboriginal Hospital Liaison Officer do you feel more comfortable or at ease about your concerns?	Never, sometimes, usually, always
Q22	How often did your family visit you in hospital?	Never, sometimes, usually, always
Q23	Did your family feel comfortable visiting you in hospital?	Never, sometimes, usually, always

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