Cultural Safety Training for Allied Health Students in Australia

Abstract

Culturally safe health practitioners are essential for effective service provision to culturally diverse populations, including Indigenous Australians. Therefore, cultural safety education during training as a health care professional is an essential component in helping improve the health of Indigenous Australians.

This study examined whether the implementation of an Indigenous cultural safety education workshop increased self-rated cultural safety knowledge and attitudes of allied health students. The study employed a quantitative before-and-after design using pre-and post- surveys to determine the level of attitudinal change in students who attended a day long workshop. The study sample consisted of 1st year (n = 347) and 4th year (n = 149) allied health students at a regional Australian university over the years 2007-2011.

Whilst the results of this current study are varied in terms of achieving positive change across all of the taught items of knowledge and attitude, they provide some evidence around the value of this type of curriculum intervention in helping develop culturally safe practitioners. An important finding was around the student's becoming self-aware about their own values and cultural identity, combined with acknowledging the importance of this cultural identity to interactions with clients. This form of 'cultural humility' appears to be an important step to becoming a culturally safe practitioner. These types of interventions would be enhanced through embedding and scaffolding throughout the curricula.

Introduction

The arrival of Europeans had a major impact on the health of Indigenous peoples worldwide. In Australia, colonisation and racism has led to marginalisation of Indigenous Australians and resulted in significant inequalities in comparison to the dominant non-Indigenous group (MacKean et al, 2019). The combination of introduced diseases and poor environmental, political and socio-economic factors led to the current health disadvantage faced by Indigenous Australians (Phillips, 2004). The Australian Government acknowledges the gap between Indigenous Australians and other Australians in life expectancy, child mortality, educational achievement and employment (Australia Co., 2009). Closing the Gap Refresh acknowledges that while there have been some improvements over the last couple of decades, improving health and socioeconomic statistics in Indigenous Australians remains a challenge. Closing the Gap Refresh seeks to address shortfalls by revising the original strategies to include a whole of government agenda working in partnership with Aboriginal and Torres Strait Islander people (DPMC, 2019, Rigby et al., 2011).

Previous studies have shown that socio-economic determinants as well as limited accessibility/acceptability of health services influence the health of Indigenous populations (Smith, 2007). Of main concern is the under-use of existing health services, and/or compliance with interventions (Gruen et al., 2001). These practices are attributable in part to a historical mistrust of authority by Indigenous people (Turale & Miller, 2006) and to the lack of culturally appropriate healthcare practices (Smith, 2007; Taylor & Guerin, 2010).

Without sufficient knowledge about the client's cultural background, healthcare workers may use their own cultural beliefs as a reference for assessment and delivery of services, and thus may misunderstand a client's appropriate cultural response (Kreuter et al., 2003; Valencia, 1992). This type of bias constitutes an issue for any cultural minority group in a healthcare or health education setting. Healthcare practitioners frequently reported

feeling poorly prepared to deal with cultural minority groups (Gerrish, 1999; Johnstone & Kanitsaki, 2007) which can impact on the efficacy of work with these groups (Brown et al., 2016; Gerrish & Papadopoulos, 1999; Hughes & Hood, 2007; Lipson & Desantis, 2007; Williamson & Harrison, 2010). A wide range of terms have been employed in discussions of around training to work appropriately with cultural minorities including cultural competence, cultural relevance and cultural safety (Beagan, 2015).

Students must have a clear understanding of culture and the meaning associated with this concept (Jungersen, 1992). Culture refers to shared ideas, values and beliefs within a particular group (Hammell, 2009). Although culture is often reduced to a narrow focus on ethnicity, it is also informed by gender and class (Beagan, 2015). Teaching students 'cultural competency' has been put forward as a way of achieving this cultural understanding (Pope-Davis et al., 1993). According to Fitzgerald, Mullavey-O'Byrne and Clemson (1997), a culturally competent therapist has an awareness of, and sensitivity to the meaning of culture and related issues. Even though cultural safety is similar to cultural competency; in that they both focus on knowledge development and self-reflection, 'cultural competence' does not place emphasis on a socio-political analysis.

Cultural safety values the cultural knowledge and experience of the Indigenous client and recognises the impact of colonisation and the resulting manifestations of power inequalities and racism (Mackean et al, 2019). This socio-political and historical understanding is necessary to help students understand the issues faced by Indigenous groups, particularly the negative impact of racism (both individual and institutional) on health status, and the inherent power imbalance between a health provider and their client which can lead to treatment that does not respect the cultural needs of the client (Gerlach, 2012; Beagan, 2015). The development of culturally safe attitudes in health professionals is crucial to safe

and effective practice (Ramsden, 1992). Thus, the focus of this research was on the teaching of cultural safety.

According to Durey (2010, pp. S87–S92), 'racism is a fundamental social determinant of health'. Thus, cultural safety is more than just the accumulation of knowledge and skill about other cultures and sensitivity to others, it requires an attitudinal shift towards anti-racism (Ramsden, 1992). Anti-racism requires people to be able to work with those who have less power in society in order to elucidate and contest assumptions and inequalities (Australian Human Rights Commission, 2019), The journey to become culturally safe requires growth and maturity through ongoing personal reflection around assumptions about Indigenous people and their position of power in the healthcare relationship (Forwell et al., 2001). Through learning about their own culture, health care students can gain an understanding of their own position of power and also understand that cultural identity is meaningful and unique for all people (Bourke et al. 2004; Mackean et al, 2019). A culturally safe therapeutic relationship can help address the power imbalance between a non-Indigenous health professional and Indigenous client (Gray & McPherson, 2005). Furthermore, cultural safety also has a broader utility, in that the development of open-mindedness and understanding of power relationships that comes with the focus on Indigenous groups serves to enable the health professional to work safely with all other groups that are culturally different to themselves (Gray & McPherson, 2005). Although this paper will prioritise the focus on cultural safety, it draws upon other relevant literature including that dealing with cultural competence.

A 2005 study undertaken on new graduate occupational therapists across New Zealand and Australia revealed that graduates did not feel competent about aspects of culture in relation to a person's wellbeing (Gray & McPherson, 2005). This lack of confidence may reduce the quality of services that are appropriate and meaningful to clients and decrease the

likelihood of the clients to be motivated to accomplish treatment goals (Gray & McPherson, 2005; Dillard et al., 1992; Pope-Davis et al., 1993). The training of health practitioners who can provide culturally safe health delivery has implications for health education and training (Gray & McPherson, 2005; Forwell et al., 2001; Nash et al., 2006; Nelson et al., 2001; Rasmussen et al., 2005; Stedman and Thomas, 2011; Carey, 2015). In order to develop culturally safe professionals, there must be culturally safe education (Sanner & McAllister, 2010; Bennett & Salonen, 2007).

Liaw et al. (2015), highlight that the knowledge of Indigenous history among the medical profession needs improvement. Yet it has been commonly reported that students do not understand the need to focus on Indigenous issues, which highlights the need for the socio-political focus and education about the special place of Indigenous people within their own country of origin (Gray & McPherson, 2005; Nash et al., 2006).

Although the actual wording may differ across disciplines, the teaching of cultural safety concepts and/or the development of cultural competence has been mandated by most health care professional bodies in Australia. For universities this responsibility is governed through the program accreditation processes. The Australian Health Practitioner Regulation Agency regulates health practitioners and associated university programs in partnership with National Boards (who produce the competency standards) to ensure that required curriculum standards are met, including training for culturally safe practice (AHPRA, 2019).

Becoming a culturally safe practitioner begins through an appropriate curriculum which introduces the political and historical context which has led to the health status of Indigenous Australians (Nash et al., 2006). There are two approaches mooted with regards to the presentation of Indigenous content and cultural safety in a curriculum. Firstly, the ‘integration’ or ‘embedding’ of Indigenous Australian themes throughout (Nash et al., 2006;

Phillips, 2004), versus a stand-alone block or workshop, which incorporates all themes at one time (Forwell et al., 2001).

It has been highlighted that the most effective means of providing cultural safety education is through 'embedding' into existing curricula, as this serves to continually reinforce cultural knowledge (Forwell et al., 2001; Nash et al., 2006). However, 'workshop' style block courses may be beneficial in ensuring that relevant knowledge does not become 'lost within an overcrowded' curriculum (Forwell et al., 2001, pp. 90-103). All studies found that students who took part in cultural safety curricula, whether embedded or block, increased self-rated competence skills (Nash et al., 2006; Forwell et al., 2001; Pope-Davis et al., 1993; Rasmussen et al., 2005; Trentham et al., 2006).

Although cultural inclusions into curriculum are now widespread, Gallagher and Polanin (2014) reviewed 25 studies of educational cultural competence interventions and concluded that these interventions varied in their effectiveness. Some studies show that students demonstrate enhanced cultural awareness, an appreciation of difference and similarities across cultures, and increased personal and professional growth (Neander & Markle, 2005; Casey & Murphy, 2008; Bittle et al., 2002; Hamner et al., 2007; Hunt & Swiggum, 2007; Hutnik & Gregory, 2008; Kruske et al., 2006). Other studies have demonstrated that training was successful in improving learners' cultural awareness, sensitivity, knowledge and self-rated cultural competence skills (Forwell et al., 2001; Nash et al., 2006; Beach et al., 2005; Carter et al., 2006; Dogra, 2001; Trentham et al., 2007). However, many studies undertaken have been qualitative in method and there is no broad quantitative evidence that supports cultural safety training as a strategy for improving cultural competence in allied health students. This current study utilised a mixed methodology but reports on the quantitative aspect only.

Curriculum development

The National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework 2016-2023 identifies the inclusion of 'training to build a culturally safe and responsive workforce' as a priority to helping close the gap of Indigenous disadvantage (ATSIHWWG, 2016, p. 2). A landmark document in the movement towards the changes to health policy, including inclusion of specific aspects of Indigenous Australian content was the 1989 National Aboriginal Health Strategy (National Aboriginal Health Strategy Working Party, 1989). The principles incorporated in this document are still relevant today (National Aboriginal Health and Torres Strait Islander Health Council, 2003). Recommendations for course design within this document included: inclusion of content about Indigenous Australian culture, history and current issues; involvement of Indigenous Australian people in the delivery of such content; and the engagement of academic staff in Indigenous Australian orientation and cross-cultural awareness programs (National Aboriginal Health Strategy Working Party, 1989).

Evolving from discussions between academic occupational therapy staff and academic Indigenous Australian staff at a regional Australian university (including the authors of this paper), a workshop format was developed to fit into the 1st and 4th year curriculum for various allied health disciplines. A workshop approach was chosen as it did not require changing an entire curriculum. The 1st year workshop ran for one full day and the 4th year workshop one full day.

Durey (2010), highlighted that, in order to provide effective cultural safety education for undergraduate students there must be consultation and partnerships between academics, health services and Indigenous Australian communities.

Both Indigenous Australian academics, Elders and community members, and non-Indigenous academics collaborated on the development and delivery of these workshops. Workshops utilised a variety of teaching methods that enabled students to engage with, and experience, Indigenous Australian content and reflect on their own perceptions of working with Indigenous Australian people (e.g. self-reflection activities, Indigenous Australian History, conversations with Elders, education on culturally safe communication).

In some cases, the workshops were one of the few times the mainly non-Indigenous students had interacted with Indigenous Australian people. The learning that comes from such an 'immersion' experience cannot be gained from a contrived classroom situation. All teaching staff members undertook a pre-workshop training session, in which they were provided more detailed information about key messages and ways of responding to difficult situations. For example, teaching staff members were taught ways to de-escalate situations when students become upset or angry. Post-workshop debrief sessions were held for teaching staff, to allow for the 'venting' of concerns.

Although the 1st and 4th year workshops had similar activities, the focus was different. For 1st year students the focus was for them to begin to think critically about issues and to explore their own values e.g. 'Privilege Walk Activity' which allow students to explore and discuss aspects of privilege they enjoy and compare that to others (University of Houston, 2019). For 4th years, the culturally safe communication and professional practice learning component was foremost and was an important contribution to the exploration of ethical issues related to practice. In this 4th year workshop, culturally safe practice is discussed in relation to the ethical principles of justice, autonomy, and maleficence and non-maleficence. Students examined previous experiences of working with Indigenous Australian clients within health services and reviewed the responsibilities of professionals to ensure culturally safe practice.

4th year workshops also entailed professional 'interviewing' experiences with Indigenous Australian Elders and other community members. After the interviews the students received feedback from the interviewees about their style and were provided with pointers to enhance communication. This component was designed as an immersion technique. Although limited in time and undertaken in an 'artificial setting', this process provided a 'safe space' for students to interact with an Indigenous Australian person. Caffrey et al., (2005) found moderate to large gains (positively correlated with the time immersed in experience) in student self-perceived knowledge and comfort after an immersion experience.

Workshop were run and evaluated in order to provide information on the efficacy of this curriculum component, and the best methods of teaching it. This information could then be utilised in the extension or embedding of cultural safety through the curriculum. The literature review of studies that have evaluated cultural safety curriculum indicated that mixed methods research approach was best to appropriately assess the impact of cross-cultural content (Betancourt, 2003).

Only minor changes (based on staff and student feedback) were made to the workshops over the 5-year period, making it viable to combine the evaluation results.

The aim of this project was to explore the self-perceived knowledge and attitudinal changes of allied health students who attended the cultural safety education workshops at different stages of their education. It was postulated that attending the workshop would increase self-rated cultural safety knowledge and attitudes.

Methods

This project employed a quantitative before-and-after design. Surveys (pre and post) were devised to determine the level of attitudinal change experienced by the various student cohorts through attending the two one-day workshops (beginning of 1st year and end of 4th

year). Qualitative data was also gained via provision on the survey for open ended responses and a reflective activity. This paper only reports on the quantitative evaluation method and results.

This research was approved by the Human Research Ethics Committee of the investigated regional university prior to participant recruitment (approval number #H2743). Informed consent was obtained from all participants at the beginning of each workshop.

Participants

The target group consisted of all allied health students at a regional Australian University over the years 2007-2011 who had participated in the cultural safety workshops in either their 1st year at university or 4th year at university. Workshops were undertaken as part of the normal curriculum offering. Those students attending 1st year workshops represented several different disciplines including occupational therapy, physiotherapy, speech pathology and diploma of health. The response rate was 347 from 382 1st year students over the 5 years (90.8%). Only occupational therapy students attended the 4th year workshops. The response rate was 159 from 198 4th year occupational therapy students over the 5 years (80.3%).

Data Collection

The pre-and post-evaluation method used in this study was informed by other studies, which utilised similar methods such as attitudinal self-report surveys to evaluate cultural competency. In these studies surveys were generally specifically designed for the programs offered (Cheung, Shah & Muncer, 2002; Carter et al., 2006; Chapman et al., 2014; Hutnik & Gregory, 2008; Neander & Markle, 2005). As was undertaken by Cheung, Shah and Muncer, (2002), the evaluation focused on the specific goals of each workshop, rather than using more generic attitudinal change instruments or previously utilised surveys.

Participants were asked to complete a pre-survey at the start of the workshop. These were collected by staff prior to the students continuing with the day's activities. The identical post workshop surveys (and the reflective diary sheets for 1st years' only) were then provided and the student asked to keep this with them to be collected at the end of the day. Answers between the two instruments were compared. Likert scales (from 1-7) were used to assess participants' self-perceived knowledge and attitudinal changes directly in relation to specific workshop content (see table 1).

- -INSERT TABLE 1 ABOUT HERE-

The pre-survey was also used to gather participant demographic information such as age group; where they spent most of their childhood; if they were of Aboriginal or Torres Strait Islander background; and if they had previously lived or worked with people from an Aboriginal and Torres Strait Islander background. Inclusion of this information helped to identify any potential bias in the survey results.

Data Analysis

To reduce the chances of obtaining false-positive results (type I errors), since multiple pair wise tests were performed on a single set of data, the Bonferroni correction was used (Bonferroni, 1936). Because six outcome measures were tested against one hypothesised predictor in first and fourth years, a Bonferroni-adjusted significance level of 0.0042 was calculated to account for the increased possibility of type-I error. Accordingly, the authors used the Bonferroni correction to adjust the *p* value for each hypothesis to 0.0042 to neutralise this risk. In this study, the participants served as their own control. The Statistical Package for Social Sciences (SPSS), Version 13 was used for data analyses. Normally distributed data was expressed as mean ± standard deviation.

Results

Participant characteristics

Table 2 shows that most 1st year participants (73.2%) were under 20 years old whereas most 4th year participants (84.9%) were between 20 and 25 years old. Most of the participants grew up in Australia (85% 1st year participants and 93.7% 4th year participants) in a small or large regional town (23.9% and 39.2% 1st year participants and 37.3% and 34.8% 4th year participants, respectively). Only a small number of participants were of Indigenous Australian background (2.9% 1st year participants and 1.9% 4th year participants). Almost 50% of the 1st year and 4th year participants had previously lived or worked with people from an Indigenous Australian background. It was expected that many of the 4th year students would have experience working with people from an Indigenous Australian background during fieldwork, however, the high percentage of 1st year student who had experience working with Indigenous people was unexpected. Results indicated that some 1st year students considered going to school with Indigenous Australian people was synonymous with working with them.

-INSERT TABLE 2 ABOUT HERE-

Table 3 shows that attending the workshop increased some of the targeted variables in 1st year students. After attending the workshop, 1st year students perceived they had more knowledge about Indigenous Australian history ($t(318)= -6.445$, $p<.0042$); culture and society ($t(318)= -8.631$, $p<.0042$); and current issues ($t(318)= -6.521$, $p<.0042$). The results also showed that participants perceived their own cultural identity in relation to successful interactions with clients as something more important after (5.07) than before (4.9) the

workshop ($t(96)= -3.754$, $p<.0042$). However, results showed that 1st year students rated their awareness of their own cultural values and identity lower after (3.71) than before (4.89) the workshop ($t(96)= 5.440$, $p<.0042$). After the Bonferroni correction, statistical analyses did not show significant difference in confidence scores in being able to work with people from an Indigenous Australian background ($t(346)= -2.341$, NS). Controlling for age, geographical background and having previously worked or lived with Indigenous Australian people, results showed that none of these variables impacted on the significance of the previous findings.

-INSERT TABLE 3 ABOUT HERE-

Table 4 shows that the workshop increased some of the targeted variables in 4th year students. Results showed that scores on knowledge about Indigenous Australian culture and society were higher after (4.52) than before (3.97) the workshop ($t(158)= -4.767$, $p<.0042$). However, the results showed that attending the workshop did not increase either knowledge about Indigenous Australian history ($t(158)= -1.940$, NS), nor knowledge about current Indigenous Australian current issues ($t(158)= .197$, NS). Statistical analyses revealed that the confidence scores in being able to work with people from an Indigenous Australian background were higher after (4.52) than before (4) the workshop ($t(158)= -5.076$, $p<.0042$). Results showed that 4th year students perceived their own cultural identity in relation to successful interactions with clients as being more important after (5.79) than before (5.12) the workshop ($t(48)= -3.030$, $p<.0042$). However, statistical analyses showed that participants rated their awareness of their own cultural values and identity lower after (4.36) than before (5.3) the workshop ($t(48)= 3.344$, $p<.0042$). Controlling for age, geographical background

and having previously worked or lived with Indigenous Australians, results showed that these variables did not impact on the significance of the previous findings.

-INSERT TABLE 4 ABOUT HERE-

Discussion

The aim of this project was to explore the self-perceived knowledge and attitudinal changes of 1st and 4th year allied health students who attended a cultural safety education workshop. The workshops were well attended and resulted in self-perceived changes over the majority of targeted knowledge and attitudinal items. However, importantly, the findings showed that the significance and direction of those changes were different depending on the item and year cohort.

For 1st year students, there was an increase in perceived knowledge about Indigenous Australian history, culture and society, and current issues. These results are important as cultural knowledge is one of four levels of development necessary for achieving cultural competence (Papadopoulos, 2006).

Findings from this study also showed that 1st year students had a significant increase in perceptions of the importance of their own cultural identity in interactions with clients. However, results showed that the workshop significantly decreased these students' awareness of their own cultural values and identity, indicating perhaps that, through this education, students discovered their own level of 'cultural blindness' (where they were unaware of their cultural difference previous to the workshops) (Steed, 2010). In line with this negative change in awareness of their own values and identity, there was also no increase in their confidence in being able to work with Indigenous Australian people.

Regardless, these negative findings could be construed as a positive outcome. For

example, a self-evaluation by primary physicians after attending cultural competence course on diabetes care found an increased appreciation of their own lack of knowledge and a lowering of confidence in cultural abilities (Kutob et al., 2013). Isaacson (2014), found a similar downward shift in perceived cultural competency after senior nursing students experienced cultural immersion in a Native American reservation. These results subsequently raise the question whether cultural safety training needs to acknowledge the importance of the development of what is termed as cultural humility as a step in the process (Minkler & Wallerstein, 2012). To have cultural humility you must have openness to the meaning of diversity, be egoless and self-aware (Foronda et al., 2016). Cultural humility and cultural safety have a considerable overlap in terms of self-reflexivity, although cultural safety has more focus on seeking to empower the client in the healthcare relationship (Shepherd, 2019). So perhaps, the overlap in these concepts was reflected in the findings of this current research. For example, 1st year students showed themselves to be more open and self-aware by perceiving that they had more to learn about themselves (own cultural identity and values) before they felt they were confident to practice with Indigenous Australian clients.

For the 4th year students, the pattern of results differed. The workshop only had an effect on perceived knowledge about Indigenous Australian culture and society. This finding suggests that this cohort may have already integrated some knowledge of Indigenous Australian history and current issues. For some of this 4th year cohort they had previously completed the 1st year workshop, 3 years earlier, so may have retained some of this knowledge. Consistent with the 1st years, findings showed that, 4th year students were more aware after they attended the workshop of the importance of their own cultural identity in interactions with people from different cultural backgrounds. Converse to this increased awareness about the importance of their identity in practice, 4th year students (as with 1st years) also experienced a decrease in awareness of their own cultural values and identity

(likely for the same reasons as discussed previously). However, unlike 1st year students, 4th year students still felt more confident in working with Indigenous Australian people after attending the workshop. This result suggests that the immersion strategy used for the 4th year cohort was more effective in increasing student's feelings of confidence. In addition, it is likely that 4th year students generally felt more prepared to work as health professionals due to being further through their programs than 1st years. Confidence does not necessarily equate to safety though, hence the importance of the development of cultural humility also shown in the 4th year cohort (Foronda et al., 2016).

Taking into consideration that these workshops indicate an improved cultural humility, findings suggest that, while cultural safety programs can lead to these short-term improvements (Durey, 2010), one off workshops may not be sufficient for promoting ongoing knowledge and attitudinal changes required for culturally safe practice. Indeed, a recent study by Bullen and Roberts (2018), found that an entire 1st year learning unit dedicated to Indigenous Australian cultures and health only brought about small but measurable changes in students' attitudes and preparation towards working with Indigenous Australians. According to Gibbs (1984), it is difficult for a person to fully understand the value system of another culture unless he/she is brought up in, or has lived in, that culture for a long period of time. Placements which require living and working in cultural minority settings have proven effective in developing culturally safe practice, when racism and the value of cultural mentors is addressed (Gair et al., 2014). The findings of this current study suggest that to develop fully as culturally safe practitioners, students need more time immersed in another culture different than their own.

The findings have several implications for planning when and how often these educational experiences are staged within a curriculum. Gray and McPherson (2005) suggest that developing culturally safe practice should begin with culturally appropriate knowledge at

an undergraduate level. The findings of this current study imply that the 1st year workshop extended their knowledge of other cultures and encouraged critical examination of their own cultural values and identity and the development of cultural humility. Therefore, an intervention, even as brief as a single day-long workshop, can be effective to achieve this starting point in the journey towards becoming culturally safe.

Results indicated that the 4th year students only perceived an increase in knowledge around Indigenous Australian culture and society. Much of the 'culture and society' content was directly related to professional practice. Therefore, it is recommended that a focus on culturally safe practice, rather than more general knowledge in the latter years of undergraduate study, may reduce the risk of students being poorly prepared to deal with cultural minority groups.

Limitations

Several limitations in the current study should be noted. Despite using an anonymous questionnaire, there is a growing concern that self-report measures lead to socially desirable answers (Larson & Bradshaw, 2017). As such, an improvement in confidence on subjective responses may not indicate that students are truly able to apply what they have learned. Perversely, decrease in confidence can indicate an *increase* in knowledge. As learners grasp how little they know about culture, and the effect of cultural differences in clinical encounters, they have been shown to report lack of knowledge, understanding and skills in this arena (Kutob et al., 2013; Isaacson, 2014). Validity was improved through the standardising of methods over the 5 years of the study with the principle investigator (first author) introducing the research component to students and overseeing the research aspect consistently over the years of the study. Incomplete datasets on the pre-post measures of attitudinal change also limited the statistical power of these findings. As this study used a

student sample from one regional university in Australia, and a survey which was specific to the specific curriculum content of this setting, the generalisability of the findings is limited. This study comprised of one group for the pre-and post-test, with no control group, therefore the effects of potential confounding factors could not be analysed.

Nevertheless, a significant change in student perceptions was found, suggesting that these types of workshops were effective in achieving self-perceived attitudinal change in many areas. Finally, it is unknown to what effect the participants' own cultural background had on their cultural knowledge and attitudes. For example, individual participant characteristics may make them more vulnerable to socially desirable answers (Larson & Bradshaw, 2017). In addition, Meydanlioglu, Arikan and Gozum (2015) found that students who speak and understand another language had higher levels of cultural awareness than those who did not. Therefore, it would be important to consider the background of students when designing cultural safety programs.

Conclusion

This study explored the self-perceived knowledge and attitudinal changes of allied health students who attended a cultural safety education workshop.

Cultural safety education and competence is mandated by the majority of health professional accrediting bodies, therefore is an obligation for most Universities to meet. A key aspect of cultural safety is the development of the socio-political and historical knowledge necessary to understand the negative impact of racism on health status, and to understand the inherent power imbalance between a health provider and their client which, when not considered, can lead to inappropriate treatment. Thus, cultural safety education is an essential component in helping improve the health of Indigenous Australians. This current study showed significant self-perceived improvements in socio-political knowledge items

(Indigenous Australian culture and society) and the attitudinal item of understanding the importance of your own cultural identity in interactions with clients across all cohorts and year groups.

Whilst the other results are varied in terms of achieving positive change across all of the taught knowledge and attitude items, they provide some evidence around the value of this type of curriculum intervention. An important finding was around the student's becoming self-aware about their need to understand more about their own values and cultural identity, combined with the acknowledgement that their own identity was important in their interactions with clients. This form of 'cultural humility' is an important step to becoming a culturally safe practitioner. Thus, these cultural safety workshops were successful, even as a beginning point for students to develop further. These types of curricula interventions would be enhanced through embedding and scaffolding throughout the curricula.

Findings also indicate that different content aspects should be scaffolded across the curriculum at times when the students are best prepared to learn them. For example, history, culture and current issues should be presented in first instance, with more culturally safe clinical practice related content presented in the later years of the curriculum.

While evidence exists that such programs are effective in producing the desired educational outcomes, there is less evidence that investigates if these outcomes translate into better clinical practice (Carter et al., 2006). Further longitudinal research, which follows up graduates in practice, would be valuable.

While this research was undertaken with allied health students, recommendations are pertinent to the development of cultural safety in other health professions. Any country with Indigenous and/or minority groups could adapt this type of curriculum intervention to their own culture and history to prepare future health practitioners to meet clients' cultural needs.

Acknowledgements

None.

Financial Support

This research received no specific grant from any funding agency, commercial, or not-for-profit sectors.

Conflicts of Interest

None.

References

Aboriginal and Torres Strait Islander Health Workforce Working Group (ATSIHWWG) (2016) *National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework (2016-2023).* Available at https://www1.health.gov.au/internet/main/publishing.nsf/Content/work-pubs-natsihwsf (accessed 19 June, 2019)

Australia Co. (2009) *Social inclusion. Closing the gap for indigenous Australians.* Available at http://www.socialinclusion.gov.au/Initiatives/Pages/closingthegap.aspx (accessed 20 June, 2018)

Australian Health Practitioner Regulation Agency (AHPRA) (2019) *What we do*. Available at https://www.ahpra.gov.au/About-AHPRA/What-We-Do.aspx (accessed 2 September, 2019)

Australian Human Rights Commission (2019) *Let's talk about race: a guide on how to conduct a conversation about racism*. Available at https://www.humanrights.gov.au/our-work/publications (accessed 2 September, 2019)

Barry MM, Battel-Kirk B and Dempsey C (2012) The CompHP core competencies framework for health promotion in Europe. *Health Education & Behavior* 39(6), 648-662.

Beach MC, Price EG, Gary TL, Robinson KA, Gozu A, Palacio A, Smarth CR, Jenckes MA, Feuerstein CA, Bass EA, Powe AN and Cooper LA (2005) Cultural competency: A systematic review of health care provider educational interventions. *Medical Care* 43(4), 356.

Beagan BL (2015) Approaches to culture and diversity: A critical synthesis of occupational therapy literature: Des approches en matière de culture et de diversité : une synthèse critique de la littérature en ergothérapie. *Canadian Journal of Occupational Therapy* 82(5), 272–282.

Bennett JM and Salonen R (2007) Intercultural communication and the new American campus. *Change: The Magazine of Higher Learning* 39(2), 46-50.

Bittle M, Duggleby W and Ellison P (2002) Implementation of the essential elements of service learning in three nursing courses. *Journal of Nursing Education* 41(3), 129-132.

Bonferroni CE (1936) *Teoria statistica delle classi e calcolo delle probabilita.* Seeber: Libreria Internazionale.

Brown AE, Middleton PF, Fereday JA and Pincombe JI (2016) Cultural safety and midwifery care for Aboriginal women–A phenomenological study. *Women and Birth* 29(2), 196-202.

Bullen J and Roberts L (2018) Transformative Learning: A Precursor to Preparing Health Science Students to Work in Indigenous Health Settings? *The Australian Journal of Indigenous Education* 1-12. doi: 10.1017/joe.2018.3

Carey M (2015) The Limits of Cultural Competence: An Indigenous Studies Perspective. *Higher Education Research and Development* 34(5), 828–840.

Carter MM, Lewis EL, Sbrocco T, Tanenbaum R, Oswald JC, Sykora W, Williams P and Hill LD (2006) Cultural competency training for third-year clerkship students: effects of an interactive workshop on student attitudes. *Journal of the National Medical Association* 98(11), 1772.

Casey D and Murphy K (2008) Irish nursing students' experiences of service learning. *Nursing & Health Sciences* 10(4), 306-311.

Chapman R, Martin C and Smith T (2014) Evaluation of staff cultural awareness before and after attending cultural awareness training in an Australian emergency department. *International Emergency Nursing* 22(4), 179-84.

Cheung Y, Shah S and Muncer S (2002) An Exploratory Investigation of Undergraduate Students' Perceptions of Cultural Awareness. *The British Journal of Occupational Therapy* 65(12), 543–550.

Dade Smith J (2007) *Australia's rural and remote health: A social justice perspective.* Croydon, Victoria: Tertiary Press.

Davis K (1997) *Exploring the intersection between cultural competency and managed behavioral health care policy: Implications for state and county mental health agencies.* Alexandria, VA: National Technical Assistance Center for State Mental Health Planning.

Dean R (2001) The myth of cross-cultural competence. *Families in Society* 82(6), 623–630.

Department of the Prime Minister and Cabinet (DPMC) (2019) *Closing the Gap Report 2019.* Available at https://ctgreport.pmc.gov.au/sites/default/files/ctg-report-2019.pdf?a=1 (accessed 18 August, 2019)

Dillard M, Andonian L, Flores O, Lai L, MacRae A and Shakir M (1992) Culturally competent occupational therapy in a diversely populated mental health setting. *American Journal of Occupational Therapy* 46(8), 721-726.

Dogra N (2001) The development and evaluation of a programme to teach cultural diversity to medical undergraduate students, *Medical Education* 35(3), 232-241.

Durey A (2010) Reducing racism in Aboriginal health care in Australia: where does cultural education fit? *Australian and New Zealand Journal of Public Health* 34, S87–S92.

Forwell SJ, Whiteford G and Dyck I (2001) Cultural competence in New Zealand and Canada: Occupational therapy students' reflections on class and fieldwork curriculum. *Canadian Journal of Occupational Therapy* 68(2), 90-103.

Gair S, Miles, D, Savage D and Zuchowski I (2014) Racism Unmasked: The Experiences of Aboriginal and Torres Strait Islander Students in Social Work Field Placements. *Australian Social Work* 68(1), 1–17.

Gallagher R and Polanin J (2015) A meta-analysis of educational interventions designed to enhance cultural competence in professional nurses and nursing students. *Nurse Education Today* 35(2), pp.333–340.

Gerlach AJ (2012) A critical reflection on the concept of cultural safety. *Canadian Journal of Occupational Therapy* 79, 151–158. doi:10.2182/cjot.2012.79.3.4

Gerrish K and Papadopoulos I (1999) Transcultural competence: the challenge for nurse education. *British Journal of Nursing* 8(21), 1453-1457.

Gibbs A (1984) Cultural awareness training for New Zealand counsellors. *International Journal for the Advancement of Counselling* 7(2), 131-41.

Gray M and McPherson K (2005) Cultural safety and professional practice in occupational therapy: A New Zealand perspective. *Australian Occupational Therapy Journal,* 52(1), 34-42.

Gruen RL, Bailie RS, d'Abbs PH, O'Rourke IC, O'Brien MM and Verma N (2001) Improving access to specialist care for remote Aboriginal communities: evaluation of a specialist outreach service. *The Medical Journal of Australia* 174(10), 507-511.

Hammell KW (2009) Sacred texts: A sceptical exploration of the assumptions underpinning theories of occupation. *Canadian Journal of Occupational Therapy* 76, 6–13. Doi: 10.1177/000841740907600105

Hamner JB, Wilder B and Byrd L (2007) Lessons learned: Integrating a service learning community-based partnership into the curriculum. *Nursing Outlook* 55(2), 106-110.

Hollinsworth D (2013) Forget Cultural Competence; Ask for an Autobiography. *Social Work Education* 32(8), 1048–1060.

Hughes KH and Hood LJ (2007) Teaching methods and an outcome tool for measuring cultural sensitivity in undergraduate nursing students. *Journal of Transcultural Nursing* 18(1), 57-62.

Hunt RJ and Swiggum P (2007) Being in another world: Transcultural student experiences using service learning with families who are homeless. *Journal of Transcultural Nursing* 18(2), 167-174.

Hutnik N and Gregory J (2008) Cultural sensitivity training: description and evaluation of a workshop. *Nurse Education Today* 28(2)**,** 171-178.

Isaacson M (2014) Clarifying Concepts: Cultural Humility or Competency. *Journal of Professional Nursing* 30(3), 251–258.

Johnstone MJ and Kanitsaki O (2007) An exploration of the notion and nature of the construct of cultural safety and its applicability to the Australian health care context. *Journal of Transcultural Nursing* 18(3), 247-256.

Kinebanian A and Stomph M (2009) *Diversity Matters: Guiding principles on diversity and culture*. Forrestfield, Western Australia: World Federation of Occupational Therapists.

Kreuter MW, Lukwago SN, Bucholtz DC, Clark EM and Sanders-Thompson V (2003) Achieving cultural appropriateness in health promotion programs: targeted and tailored approaches. *Health Education & Behaviour* 30(2), 133-146.

Kruske S, Kildea S and Barclay L (2006) Cultural safety and maternity care for Aboriginal and Torres Strait Islander Australians. *Women and Birth* 19(3), 73-77.

Kutob RM, Bormanis JM, Crago MM, Harris JM, Senf JM and Shisslak CM (2013) Cultural Competence Education for Practicing Physicians: Lessons in Cultural Humility, Nonjudgmental Behaviours, and Health Beliefs Elicitation. *Journal of Continuing Education in the Health Professions* 33(3), 164–173.

Larson K and Bradshaw C (2017) Cultural competence and social desirability among practitioners: A systematic review of the literature. *Children and Youth Services Review* 76, 100–111.

Liaw ST, Hasan I, Wade V, Canalese R, Kelaher M, Lau P and Harris M (2015) Improving cultural respect to improve Aboriginal health in general practice: a multi-methods and multi-perspective pragmatic study. *Australian Family Physician* 44, 387-392.

Lipson JG and Desantis LA (2007) Current approaches to integrating elements of cultural competence in nursing education. *Journal of Transcultural Nursing* 18(1_suppl), 10S-20S.

Lopez SR, Grover KP, Holland D, Johnson M J, Kainm CD, Kanel K, Mellins CA, Rhyne MC (1989) Development of culturally sensitive psychotherapists. *Professional Psychology: Research and Practice* 20(6), 369.

Mackean T, Fisher M, Friel S and Baum, F (2019) A framework to assess cultural safety in Australian public policy. *Health Promotion International* Feb 22, 1-12.

Meydanlioglu A, Arikan F and Gozum S (2015) Cultural sensitivity levels of university students receiving education in health disciplines. *Advances in Health Sciences Education* 20(5), 1195-1204.

Minkler M and Wallerstein N (2012) *Improving health through community organization and community building: Perspectives from health education and social work*. In Community Organizing and Community Building for Health and Welfare: Third Edition. Rutgers University Press, pp. 37–58.

Nash R, Meiklejohn B and Sacre S (2006) The Yapunyah project: embedding Aboriginal and Torres Strait Islander perspectives in the nursing curriculum. *Contemporary Nurse* 22(2), 296-316.

National Aboriginal Health Strategy Working Party (1989) *A national Aboriginal health strategy.* Canberra: National Aboriginal Health Strategy Working Party

National Aboriginal and Torres Strait Islander Health Council (2003) *National Strategic Framework for Aboriginal and Torres Strait Islander Health, Canberra*: NATSIHC.

Available at https://www1.health.gov.au/internet/main/publishing.nsf/Content/12B50420F5E0006DCA257BF000199D6C/$File/nsfatsihcont.pdf (accessed 29 August, 2019)

Neander W and Markle D (2005) Improving the cultural competence of nursing students: Results of integrating cultural content in the curriculum and an international immersion experience. *Journal of Nursing Education* 44(5), 234.

Nelson A, Gray M, Jensen H, Thomas Y, McIntosh K, Oke L and Paluch T (2011) Closing the gap: Supporting occupational therapists to partner effectively with First Australians. *Australian Occupational Therapy Journal* 58(1), 17-24.

Occupational Therapy Australia (2010) *Australian Minimum Competency Standards for New Graduate Occupational Therapists*, Brisbane: University of Queensland.

Papadopoulos I (2006) The Papadopoulos, Tilki and Taylor model of developing cultural competence in *Transcultural health and social care: Development of culturally competent practitioners.* Edinburgh: Churchill Livingstone/Elsevier, pp.7-24.

Papadopoulos I and Omeri A (2008) Transcultural nursing theory and models: the challenges of application. *Contemporary Nurse* 28(1-2), 45-47.

Phillips G (2004) *CDAMS Indigenous health curriculum framework*. Melbourne: VicHealth Koori Health Research and Community Development Unit.

Phillips B, Morrell S, Taylor R and Daniels J (2014) A review of life expectancy and infant mortality estimations for Australian Aboriginal people. *BMC Public Health* 14(1), 1.

Phiri J, Dietsch E and Bonner A (2010) Cultural safety and its importance for Australian midwifery practice. *Collegian* 17(3), 105-11.

Pope-Davis DB, Prieto LR, Whitaker CM and Pope-Davis SA (1993) Exploring multicultural competencies of occupational therapists: Implications for education and training. *American Journal of Occupational Therapy,* 47(9), 838-844.

Ramsden IM (1992) Kawa Whakaruruhau: Guidelines for nursing and midwifery education. Wellington: Nursing Council of New Zealand.

Rasmussen TM, Lloyd C and Wielandt T (2005) Cultural awareness among Queensland undergraduate occupational therapy students. *Australian Occupational Therapy Journal* 52(4), 302-10.

Rigby W, Duffy E, Manners J, Latham H, Lyons L, Crawford L and Eldridge, R (2011) Closing the gap: Cultural safety in Indigenous health education. *Contemporary Nurse* 37(1), 21-30.

Sanner S and McAllister LE (2010) A longitudinal study of cultural competence among health science faculty. *Journal of Cultural Diversity* 17(2)**,** 68.

Shepherd SM (2019) Cultural awareness workshops: limitations

and practical consequences. *BMC Medical Education* 19 (4), 1-10. https://doi.org/10.1186/s12909-018-1450-5

Stedman A and Thomas Y (2001) Reflecting on our effectiveness: Occupational therapy interventions with Indigenous clients. *Australian Occupational Therapy Journal* 58(1), 43-9.

Steed R (2010) Attitudes and beliefs of occupational therapists participating in a cultural competency workshop. *Occupational Therapy International* 17(3), 142–151.

Suh E (2004) The model of cultural competence through an evolutionary concept analysis, *Journal of Transcultural Nursing* 15, 93-102

Taylor K and Guerin P (2010) *Health care and indigenous Australians: Cultural safety in practice. (1st ed.)* South Yarra, Victoria: Palgrave Macmillan.

Trentham B, Cockburn L, Cameron D and Iwama M (2007) Diversity and inclusion within an occupational therapy curriculum. *Australian Occupational Therapy Journal* 54, (s1).

Turale S and Miller M (2006) Improving the health of Indigenous Australians: Reforms in nursing education. An opinion piece of international interest. *International Nursing Review* 53(3), 171-177.

Universities Australia (2011) *National Best Practice Framework for Indigenous Cultural Competency in Australian Universities*. Available at

https://www.universitiesaustralia.edu.au/wp-content/uploads/2019/06/National-Best-Practice-Framework-for-Indigenous-Cultural-Competency-in-Australian-Universities.pdf (accessed 21 July, 2018)

University of Huston (2019) *Privilege Walk Activity* Available at https://www.uh.edu/cdi/diversity_education/resources/activities/pdf/privilege-walk.pdf (Accessed 29 August, 2019)

Valencia AA (1992) Multicultural education: Contemporary perspectives and orientations for teachers and counsellors. J*ournal of Multicultural Counselling and Development* 20(3), 132-142.

Williamson M and Harrison L (2010) Providing culturally appropriate care: a literature review. *International Journal of Nursing Studies* 47(6), 761-769.

Table 1. Characteristics of the student participating in this study

	First year students		Fourth year students	
Variables	Frequency	Percentage	Frequency	Percentage
Years				
2007	N/A	N/A	49	30.8
2008	69	19.9	34	21.1
2009	28	8.1	N/A	N/A
2010	104	30	33	20.8
2011	146	42.1	43	27
Age				
Under 20 years	254	73.2	N/A	N/A
20-25	39	11.2	135	84.9
26-30	11	3.2	12	7.5
31-35	2	0.6	8	5
36-40	7	2	1	0.6
41-45	1	0.3	1	0.6
Over 45 years	2	0.6	1	0.6
No response	31	8.9	1	0.6
Childhood's origin				
Australia	295	85	149	93.7
Others	21	6.1	9	5.7
No response	31	8.9	1	0.6
Childhood's area				
Remote/rural location	39	11.2	20	12.6
Small rural town	83	23.9	59	37.3
Large regional town	136	39.2	55	34.8
Large metropol centre	36	10.4	17	10.7
Large capital centre	20	5.8	7	4.4
No response	33	9.5	1	0.6
Ab or TSI Background				

Yes	10	2.9	3	1.9
No	306	88.2	152	95.6
No response	31	8.9	3	1.9
Previously Lived or Worked with Ab/TSI				
Yes	168	48.4	79	49.7
No	163	47	31	19.5
Unsure	15	4.3	4	2.5
No response	1	0.3	45	28.3

Note. metropol: metropolitan; Ab: Aboriginal; TSI: Torres Strait Islander Background

Table 3. T-test conducted of comparison between pre and post workshop scores on variables (attitudinal change experienced) for 1st year students.

		+	Post			
Variables	N	Mean ±SD	Mean ±SD	*t* test	*p* value	*p* value after Bonferroni
Know Hist	319	3.43 ±1.26	4.37 ±1.23	-6.445	4.70E-18 ***	5,64E-17*
Know Cul/Soc	319	3.52 ±1.23	4.35 ±1.22	-8.631	2.96E-16 ***	3,55E-15*
Know Cur/Iss	319	3.67 ±1.24	4.32 ±1.32	-6.521	2.75E-10 ***	3,30E-09*
Confidence	347	4.49 ±1.43	4.18 ±1.5	2.341	1.98E-02 *	2,37E-01NS
Awareness	97	4.89 ±1.16	3.71 ±1.48	5.440	4.05E-07 ***	4,86E-06*
Cultural Id	97	4.9 ±1.24	5.07 ±1.4	-3.754	2.98E-04 ***	3,58E-03*

Note. Know Hist: Student perceptions about their knowledge about Indigenous Australian history; Know Cul/Soc: Student perceptions about their knowledge about Indigenous Australian Culture and Society; Know Cur/Iss: P Student perceptions about their knowledge about current issues facing Indigenous Australian; Confidence: Student feelings of confidence to work with Indigenous Australians; Awareness: Student awareness of their own cultural values and identity; Cultural Id: Student rating of importance of their own cultural identity in relation to interactions with clients. After Bonferroni correction * means $p<.0042$.

Table 4. T-test conducted of comparison between pre and post workshop scores on variables (attitudinal change experienced) for 4th year students.

		Pre	Post			
Variables	N	Mean ±SD	Mean ±SD	*t* test	*p* value	*p* value after Bonferroni
Know Hist	116	3.9±1.21	4.14±1.27	-1940	5.41E-02NS	6,49E-01NS
Know Cul/Soc	116	4.02±1.08	4.54±1.14	-4.767	4.21E-06***	5,06E-05*
Know Cur/Iss	116	4.58±1.04	4.55±1.17	197	8.44E-01NS	1,01E+01NS
Confidence	116	4.02±1.14	4.66±1.22	-5.076	1.07E-06***	1,29E-05*
Awareness	49	5.3±0.89	4.36±1.5	3.344	3.93E-03**	1,93E-02*
Cultural Id	49	5.12±1.22	5.79±0.88	-3.030	6.80E-03**	4,72E-02*

Note. Know Hist: Student perceptions about their knowledge about Indigenous Australian history; Know Cul/Soc: Student perceptions about their knowledge about Indigenous Australian Culture and Society; Know Cur/Iss: P Student perceptions about their knowledge about current issues facing Indigenous Australian; Confidence: Student feelings of confidence to work with Indigenous Australians; Awareness: Student awareness of their own cultural values and identity; Cultural Id: Student rating of importance of their own cultural identity in relation to interactions with clients. After Bonferroni correction * means $p<.0042$.