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# Serving an Indigenous community

Exploring the cultural competence of medical students in a rural setting

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Medical schools have a social responsibility to use their expertise and resources to serve those with the greatest need (Murray et al. 2012). For many countries, those with the greatest need are found in rural communities. Most of the world's medical schools are situated in large cities; their medical students come from affluent urban areas with little exposure to rural healthcare needs. Most graduates eventually work at urban practices, with a minority returning to serve rural populations (Rourke 2010). Medical schools can influence this in a variety of ways, for example rural student selection; staff with values, attitudes and skills to teach in this area; institutional values; or a curriculum with a rural focus (Curran & Rourke 2004; Henry et al. 2009).

To this end, the International Medical University (IMU) in Malaysia has been seeking to fulfil its responsibility to society through community engagement activities. Community engagement activities have been a core project of IMU since its inception in 1992. All community engagement activities at IMU are assimilated under the structured entity within the university known as IMU Cares. The philosophy of IMU Cares is to help create 'a community of scholars and professionals committed to serving society, promoting the development of students to reach their true potential to become competent, ethical, caring and inquiring citizens, and visionary leaders'. Today, more than 50 community engagement projects operate under the banner of IMU Cares. As a university with a focus on healthcare education, many IMU Cares projects are rooted in healthcare provision or health education. In addition to their exposure to community health as part of the curriculum, IMU medical students are required to participate in a minimum of three community engagement activities as part of their medical training.

One of the longest-running projects under IMU Cares is Kampung Angkat Project (Malay for 'adopted village project') in the rural indigenous village of Kampung Tekir. The project started in 2007, providing primary rural healthcare to the villagers. The project helped to promote competencies in IMU students, particularly in the areas of service to society, professionalism, leadership and clinical skills within a rural setting. It also facilitated research into rural healthcare and the indigenous populations of Malaysia. The initiative received the MacJannet Prize for Global Citizenship in 2013 (Tufts University 2013). In 2012, the project in Kampung Tekir extended to the neighbouring village of Kampung Sebir to provide primary rural healthcare and educational services.

Both Kampung Tekir and Kampung Sebir are Orang Asli villages, predominantly of the Temuan people, a subgroup of Orang Asli people. The Orang Asli (which means 'original people' in Malay) are the indigenous people of Malaysia and they are a heterogeneous group consisting of three main groups and 18 ethnic subgroups (Nicholas 2000). The Temuan people normally reside in the lowlands within the Malaysian states of Selangor and Negeri Sembilan. Traditionally swidden cultivators and collectors of forest resources, many of them are now involved in traditional forms of agriculture, animal husbandry and factory work. Their proximity to more prosperous developing areas has put them under considerable pressure from surrounding development, such that many of their villages have been described as an 'island in a sea of development' (Toshihiro 2009; Baer 1999). The villages of Tekir and Sebir are situated about 13 kilometres from the city of Seremban, which is the capital of the state of Negeri Sembilan in Malaysia. Although the Orang Asli make up less than 1 per cent of the national population, nearly three quarters live below the poverty line (Department of Statistics Malaysia 2010). In addition, the infant mortality rate among this community is as high as 51.7 per 1000 live births compared to the national average of 5.7. Their average life expectancy is 53 years compared to the national average of 73 years (Idrus 2011). More significantly, the indigenous people of Malaysia face significant challenges in the unscrupulous attempts to dispossess them of their native land and natural resources. Their spiritual belief in animism is also threatened by the pressure to convert to other religions. Laws and policies that govern indigenous affairs and the government institutions appointed to execute such powers have proven ineffective in alleviating these challenges (Idrus 2011; Masron et al. 2013; Nicholas 2000; Nicholas et al. 2010). The authors recognise they cannot do justice to the historical struggles of the Orang Asli within the scope of this paper, but more information is found in the references.

The cultural diversity unique to the Orang Asli people calls upon medical schools in Malaysia to ensure their graduates are culturally competent. Cultural competence has been highlighted as essential in the professional development of medical students (Jha et al. 2015; Turner et al. 2014). Currently, medical schools in Malaysia expose their students to rural communities through various community-based activities (Azila et al. 2006; Lim 2008). However, little research has been done to assess the cultural competence of the students or graduates.

Cultural competence has been defined as 'the ability to understand, appreciate, and interact with persons from cultures and/or belief systems other than one's own' (McGraw-Hill 2002). It can also be a set of behaviours, attitudes and policies that come together to enable a system, agency or group of professionals to work effectively in cross-cultural situations. In the context of healthcare, cultural competence is defined as the ability of providers and organisations to effectively deliver healthcare services that meet the social, cultural and linguistic needs of patients (Betancourt et al. 2002).

The terms 'cultural competence', 'cultural sensitivity', 'cultural humility' and 'cultural responsiveness' have been used interchangeably both in the literature and in their application. Foronda (2008) famously defined cultural sensitivity as employing one's knowledge, consideration, understanding, respect and tailoring, utilising awareness to self and others, when encountering a diverse group or individual. Foronda (2016) later conceptualised cultural humility as 'a process of openness, self-awareness, being egoless, and incorporating self-reflection and critique after willingly interacting with diverse individuals ... achieving mutual empowerment, respect, partnerships, optimal care, and lifelong learning'. In Australia, cultural responsiveness has been defined as 'the capacity to respond to the healthcare issues of diverse communities' (Victoria State Government, Department of Health 2009) and 'an extension of patient centred care that considers the social and cultural factors in managing therapeutic encounters with patients from different cultural and social backgrounds' (IAHA 2015). Probably the most all-encompassing definition of cultural competence has been put forward by the National Center for Cultural Competence in Washington, DC (adapted from the work by Cross et al.):

Cultural competence requires that organizations:

- —Have a defined set of values and principles, and demonstrate behaviours, attitudes, policies and structures that enable them to work effectively cross-culturally.
- —Have the capacity to (1) value diversity, (2) conduct selfassessment, (3) manage the dynamics of difference, (4) acquire and institutionalize cultural knowledge and (5) adapt to diversity and the cultural contexts of the communities they serve.
- —Incorporate the above in all aspects of policy making, administration, practice, service delivery and involve systematically consumers, key stakeholders and communities.
- —View cultural competence as a developmental process that evolves over an extended period. Both individuals and organizations are at various levels of awareness, knowledge and skills along the cultural competence continuum (Cross et al. 1989 cited by NCCC).

A culturally competent healthcare system is widely recognised as fundamental to improving health outcomes and quality of care and eliminating racial and ethnic health disparities, particularly for indigenous people (Bainbridge et al.

2015; Georgetown University 2004). However, there is still a lack of quality evidence to show that educational interventions aimed at improving cultural competence are improving patient outcomes. There are also concerns about the sustainability of efforts to improve cultural competence (Goode et al. 2006; Horvat et al. 2014).

The indigenous communities served by IMU have their own unique belief system, way of life, language and culture, which are largely unfamiliar to the medical students. Therefore, the development of cultural competence for students has several key benefits. Firstly, the students will need to have sufficient cultural competence for the project to function effectively; an absence of cultural competence among students would not only affect the success and sustainability of the project but may marginalise the community even further and diminish any hope of the latter achieving self-management and self-determination (Trudgen 2000). Secondly, when such cultural competence disseminates through the university, there is a potential that the institution will shift towards greater institutional cultural competency (Gorringe et al. 2008). Thirdly, and crucially, the development of such cultural competence may have longitudinal implications on the effectiveness of IMU's graduates in serving the indigenous population. The training of medical students must incorporate cultural perspectives and experiences that can help prepare them to work with indigenous people in the future (Bainbridge et al. 2015, Price-Robertson et al. 2011).

### **METHODOLOGY**

### Objectives and Study Design

We conducted this study to determine the cultural competence among IMU medical students who participated in community engagement activities in an indigenous community, and provide insight into how their cultural competency can be further enhanced. Our research aimed to answer the following questions:

- 1 What do the perceptions of participating students about the Orang Asli people tell us about their cultural competence?
- What do the students' views on community service in relation to their personal and professional development tell us about the way they engage with different cultures; that is, their cultural competency?

This was intended to be an exploratory qualitative study using a content analysis of reflections from IMU medical students who participated in the activities.

### Setting

Since 2013, medical students from IMU have been providing primary healthcare services once a month to the indigenous people living in Kampung Sebir. The project in Kampung Sebir is an extension of the project in Kampung Tekir. Kampung Sebir has a population of approximately 200 Temuan people. The healthcare service is led by an executive committee of medical students who

are mentored by IMU faculty members, who are experienced clinicians. Two of the investigators, CHW and SHC, are also mentors in the project. The executive committee are empowered to run all aspects of the project: organising and planning services; acquiring, monitoring and dispensing of equipment and medication; volunteer management; and auditing and reporting. The project is also supported by local government health services with medication supplies.

Approximately 10 medical students in their clinical years of training visit the village each month to provide healthcare services. Participation by medical students in the project is on a

Student Involvement, Supervision and Experiential Learning

services. Participation by medical students in the project is on a voluntary basis. The students are led by members of the executive committee, with mentoring by CHW and SHC. The students are assigned to perform various tasks in the village including setting up the clinic, registering villagers, clerking, formulating therapeutic plans, and dispensing medication.

During each visit, students may see patients of different ages as well as a mixture of acute or chronic diseases. Each student may see from one to five patients in a single visit. Although students are encouraged to come as often as they can, the limited places mean that most students can only come once.

As part of their learning, the students are asked to complete a questionnaire at the end of the visit. The questionnaire has been designed specifically to help them reflect on their experience and form the basis for a focused group discussion led by the executive committee with supervision by CHW and SHC. The focused group discussion takes place immediately after each visit. A copy of this questionnaire is attached (see appendix A).

### **Data Collection and Analysis**

For this study, we looked at the responses of the students to questions two to six in the questionnaire:

- 2 In your view, who are the Orang Asli people (consider aspects like origins, culture, behaviour, personality, etc.)?
- 3 In your view, what are the challenges faced by the Orang Asli people?
- 4 How do you view community service?
- 5 How is community service part of your life?
- 6 In your opinion, how should community service be a part of your development as a doctor?

We analysed the reflective responses of medical students who had participated in the project from January to December 2015. We contacted each of them by email or telephone to obtain their consent to use their questionnaire responses for this study. Students who did not respond after three attempts to contact them were designated as non-responders.

A purposive sampling method was used to select the most 'information-rich' responses that cover the broadest range of

themes relevant to the objectives of the study. Two researchers working in tandem selected all the appropriate responses and transcribed them verbatim onto a spreadsheet. A thematic analysis method was used to analyse the responses (Braun & Clarke 2006). Subthemes were identified by concepts and ideas expressed by the students; we then grouped related subthemes into major themes. As the review proceeded, the authors revised and updated the coding scheme when new subthemes arose or it became necessary to revise major themes. Areas of disagreement were resolved by consensus during regular meetings.

#### **FINDINGS**

We analysed the reflective responses of 112 medical students who volunteered to serve in Kampung Sebir between 1 January 2015 and 31 December 2015. Most of the students had little or no experience serving in a rural indigenous community prior to their participation in the project. The responses of the students were grouped into common recurring themes that had emerged from the thematic analysis described above. (Note: the code after each response corresponds to individual students.)

### Medical Students' Perception of the Indigenous People

# Theme 1: An independent, culturally distinct and indigenous people

The indigenous people were described by the medical students in two ways: (1) a culturally distinct, original people; (2) having a desire to preserve their own way of life. Many students described the indigenous people as the original people of the land who are culturally distinct from the rest of society.

Their origin is in Tanah Melayu [an old name referring to Peninsular Malaysia], they may have totally different cultures which are not shared or known by non-indigenous people. (P8–3)

Aborigines who are the actual bumiputeras [Malay for 'sons of the soil']. [They] have their own set of cultures and social norm[s]. [They] may be reluctant to commune with outsiders but once familiar, are usually friendly. (P6–3)

The students also felt the indigenous people desired to preserve their own way of life – that is, their culture, heritage and lifestyle. This desire was seen to contribute toward their reluctance to accept changes introduced by outsiders, and their different priorities in life compared to main society. Furthermore, it was also perceived to impede them from accessing resources available within mainstream society and their development as a community (this is explored further in themes 2 and 3).

The indigenous people are a close-knit community that are trying to preserve their own heritage. (P9–7)

[They are] natives who are generally reserved and protective of their culture. They are generally welcoming towards outsiders. However, they may need to be coaxed to accept some changes. (P6–4)

They are people deprived of the advancement of the world they refuse to be part of and insist on living the way they [are] used to. (P7–1)

### Theme 2: An isolated community

The students viewed the indigenous people as an isolated community. Isolation was described by the students in various ways: the geographical location of their village; their people being a minority community; their low socio-economic status; their lack of health awareness; the lack of access to education and healthcare facilities; and their native tongue. Many of these factors were perceived to have either predisposed or exacerbated their isolation, or emerged because of their isolation, or both. For example, the indigenous people who do not have a good grasp of the national Malay language due to a lack of educational opportunities face challenges in assimilating themselves into mainstream society because of the language barrier. On the other hand, the lack of education would isolate them further due to their inability to communicate well with society through a common language, thus perpetuating a vicious cycle. Some students perceived the isolation from society to be intentional to some degree, because the indigenous people preferred their own culture, behaviour and social circle.

A lack of formal education was perceived by students to impact the long-term development and outlook of the indigenous people.

Orang Asli are the people who are aborigines [and] who live in the forest. But some of them have moved out from their origin ... I have a friend who is an Orang Asli. They do not give importance to education and they earn their living by selling the items collected in the forest ... [there is a] lack of facilities and knowledge among the indigenous people. They do not place importance on knowledge; this prevents them from developing and exploring the world outside. (P4–5)

Most of the students described the lack of access to facilities and services as a contributory factor toward the isolation of the indigenous people and their lack of socio-economic development. One student described the lack of access to information, particularly social media, as a problem for the indigenous people.

I feel that they are still backwards socio-economically. They still have very poor access to basic facilities and healthcare services. (P4–7)

[They are] people who are somehow disconnected from social media [and] public information. (P8–1)

Some students described how society had neglected or abandoned the indigenous people. The students also linked the isolation of the indigenous people with ongoing discrimination. They associated neglect, abandonment or discrimination as exacerbating problems in other areas, such as education, facilities or other kinds of benefits.

They face the challenge to change and get out from their community, to strive to improve their quality of life and finance ... they face challenges [in accessing] facilities and health education. They were neglected by society. (P5–4)

[They are] oppressed due to lack of education and [are] taken advantage of for the benefit of others. [This] seems to be common among the indigenous community of any country ... [they are] often looked down upon and they do not receive the same privileges or attention accorded to other ethnic groups due to the common perception that the indigenous people are somehow inferior. (P5–1)

Finally, some students perceived the social isolation of the indigenous people to be the result of direct threats – in particular, relating to their native land rights and resources.

Development projects might jeopardise [the indigenous people's] resources. (P4–1)

*I think rapid development everywhere [has] invaded and destroyed their home land.* (P9–1)

#### Theme 3: Barriers to health

The students perceived many of the factors that isolated the indigenous people from society were the same factors that prevented them from achieving better standards of health. Lack of access to healthcare was perceived to be a major issue, either due to the geographical location of the indigenous people; the lack of availability of accessible healthcare services; or the lack of financial capability to afford such services.

[The indigenous people] lack knowledge especially on health; [they] do not have access to health services due to transportation and financial problems. (P4–2)

They are the aborigines of Malaysia living in the rural area. They have a suboptimal lifestyle. This causes them to be unaware of many issues regarding health. (P4–6)

Poor living environment was perceived by students to contribute further to the health problems of the villagers.

Most of them presented with problems that we seldom see in an urban community. They face problems of poor hygiene and [effects from] open burning. These will definitely pose health-related problems for their community. (P8–4)

... their living environment is quite dirty with stagnant water which provides breeding grounds for mosquitoes. (P9–14)

Many students felt that a lack of awareness of health problems and a lack of access to healthcare services were major barriers. The students associated the lack of awareness to geographical isolation, resulting in indigenous people favouring traditional treatment over allopathic treatment for ailments.

They may not have enough knowledge on what is going on with the development of healthcare systems ... they are isolated [although they] do have access to [the nearby] town. Their knowledge is limited but [they are] willing to receive new information. Some of them are facing financial, health [and] education problems. (P8–8)

[The indigenous people] are not well exposed to health care in terms of screening and management of chronic illnesses. Many believe in traditional medicine rather than western medicine. (P6–1)

A lack of formal education was perceived by students as another factor that compounded the indigenous people's lack of health awareness.

In terms of education, they lag behind us. They have less awareness about their health ... In my opinion, the indigenous people are less aware about hygiene and their own health problems. They have minimal facilities in their village. (P2–2)

Since they do not give importance to education, it is difficult for them to understand the importance of health. Therefore, it was difficult for us to help them. (P4–5)

The students perceived that the indigenous people appeared to have different priorities concerning health. The women appeared to be more health conscious than the men, while parents appeared to have a negative influence on standards of family health and hygiene.

They definitely lack education in terms of healthcare ... the men do not give priority to their health, while a lot of women have encouraging mind-sets. Nevertheless, it will be hard to implement lifestyle changes in this community. (P5–1)

The indigenous people have their [own] culture and beliefs. It is difficult to change their mind-set to accept the new treatments. The parents are not very concerned about the health of their children. (P8–1)

Some students felt that a lack of trust toward outsiders was a significant barrier toward healthcare.

The indigenous people are a very small and close-knit community. Trust is very important in physician and patient interaction. [Distrust] is one of the barriers to seeking treatment besides accessibility. (P9–2)

### Theme 4: Bringing change to the indigenous people

Many students were encouraged by evidence of change within the indigenous community, particularly in the improvement in the community's attitude towards outsiders.

Most of the indigenous people are friendly and cooperative [although], in my opinion, some of them lack confidence towards modern medicine ... (P3–1)

Some students were surprised to discover the living conditions of the indigenous people change beyond their expectation, given the perceived challenges the community faced. The better-than-expected living conditions were largely attributed to the availability of utilities, although, despite this, the students recognised that the health and hygiene of the indigenous people were still at unsatisfactory levels.

Their living condition was better than what I expected. There was water supply and electricity supply to every household. However, the cleanliness of the environment was bad. (P6–5)

My views have changed to a certain point. They were friendly, their living environment was beyond my expectation, and they do have good water and electricity supply. [Nevertheless,] their level of health was below that of the urban community. (P8–3)

The students appreciated positive changes in the way the indigenous people had accepted the provision of healthcare by the medical students, as evidenced by their willingness to adhere to recommended healthcare interventions. Some indigenous people were aware of their health and were articulate about their complaints.

They are generally polite and reserved. Some do lack health education, but some have actually adhered to interventions recommended by the volunteers after being adequately counselled. (P6–4)

The indigenous people are actually very friendly. They live a simple life. Surprisingly, most of them actually returned for follow-up and are compliant to their medications. (P9–14)

They are actually quite knowledgeable. They knew about their illness and knew how to convey their complaints/illness to us. (P8–7)

# Students Views on Community Service and its Relationship with their Personal and Professional Development

# Theme 1: Community service was valued by the students for their own development

The students valued the ways that community service developed their own skills, including improving their awareness of health issues in the community; improving their attitude (empathy and compassion), knowledge or skills specific to working in the community; and developing their ability to work in resourcelimited settings. Students also recognised that working in the community called for specific knowledge and skills.

Community service should be part of a medical student's life as it gives a whole new experience on dealing and reaching the community. The objective and intervention in community basis is different in comparison to dealing with patients in a hospital setting. (P2–3)

I was able to reach out to the community and offer help to them instead of just providing help in the hospital. I was also able to improve my communication skills. (P5–3)

[Community service] has shown me a different part of society that is in dire need of proper access to healthcare. It helped me develop a caring attitude towards people living in rural areas. (P10–1)

While all students agreed that community service was valuable for their development, the motives and manner of their development were varied. Some viewed development through community service for seemingly personal gains.

As a pre-exposure to learn how a doctor has to behave and manage a patient before housemanship [medical internship]. (P4–4)

It is very important to build myself up as a doctor who is able to function optimally at all levels of society, including [at] times with [patients with socio-economic] limitations. Should practice it regularly [and] if possible daily. (P9–9)

Other students viewed the main goal of their development was to serve the community.

By involving actively in community service, we have a better insight of [their] culture and behaviour. With that, we get to know them better and [are able] to put ourselves in their shoes. (P9–11)

Being able to recognise and understand differences in culture and belief of members of the ethnic group will aid in tailoring treatment plans to suit their needs, increasing compliance to treatment. (P9–9)

Some students recognised their development as a continuous 'journey of self-discovery' that will eventually help others.

It is an important journey in discovering the importance of using our knowledge to serve and help people wholeheartedly [and to prepare us to serve] people from all races, culture that we will face in the future.(P9–6)

# Theme 2: The purpose of community service is to improve the health of the disadvantaged

The students viewed community service as a means to improve the health of a community, particularly the health of those who are most disadvantaged. This seemingly narrow focus is probably consistent with their background and training as medical students and hence their preference for serving the community in their area of expertise but potentially neglecting other areas crucial for community development.

Community service is a platform [for me] to help the community to improve their [own] health. We can deliver health promotion right up to their doorsteps. Community service has not just brought benefit to the indigenous community, it has also benefited me. (P2–1)

Community service is part and parcel of the healthcare system as it is an effort to provide healthcare services to people living in rural areas. I think our monthly visits are a very good way to provide community service. (P8–5)

### **DISCUSSION**

Cross et al. (1989) described five steps that a practitioner should consider to achieve cultural competence:

- 1 Acknowledge cultural differences and to become aware of how they affect the helping process.
- 2 Self-examine and reflect recognise the influence of their own culture on how they act and think.
- 3 Understand and work with the 'dynamics of difference' between cultures.
- 4 Understand client's behaviour in the context of their culture.
- 5 Grow knowledge and skills continually.

These steps can be related to an understanding of worldviews, defined as the cognitive orientation or perspective of an individual or society towards the world (Vidal 2008). A comparison of the perspectives and worldviews of the students and the Orang Asli people has important implications (Table 1). We will explore the differences outlined in the table below in the subsequent sections.

Table 1: Comparisons of cultural perspectives and worldviews of students and Orang Asli

CULTURAL PERSPECTIVE OR WORLDVIEW	STUDENTS	ORANG ASLI
Needs and priorities in life	Good health Education Modern amenities	Old way of life is sufficient for needs (Nicholas 2006)
What is important for the future?	Advancement and development	Pragmatic survival (Nicholas 2006)
View on health	Westernised (preventative)	Pragmatic (Baer 1999)
Perceived challenges for the indigenous community	Isolation	Contest for resources (see references below)
View on change in the indigenous community	Resistant	Conditionally open (Baer 1999)

### Appreciating Different Worldviews and Cultural Differences

The background of the indigenous people of Malaysia and the challenges they face have been well documented (Idrus 2011; Lye 2011, 2013; Nicholas 2000, 2006; Nicholas et al. 2010; Nicholas

& Lasimbang 2004; Toshihiro 2009) indeed, throughout the world, they use both social and ecological methods to enhance their chances of survival in this changing environment: socially, they have developed networks of trading and marriage partners; ecologically, they maintain patches of key resources that are available for future harvesting. As evidenced in the case of the Batek (Orang Asli. Dr Colin Nicholas, founder of the Center for Orang Asli Concerns in Malaysia, describes the Orang Asli approach to life:

The knowledge of the Orang Asli is enshrined in daily living, ritual, and taboo underlining how culture, language, religion, psychology and spiritual beliefs cannot often be separated from their understanding of the natural world. This knowledge has passed through generations and assures not only the survival and sustainability of the forest but the people and cultures also depend upon this knowledge and the ecosystem ... The ethos, as such, of Orang Asli knowledge is holistic and ecological (Nicholas 2006.)

#### He further writes:

Economic pragmatism (a very down-to-earth approach to procuring maximal return to labour) and opportunism (a flexible posture toward seizing opportunities) seem to be the rule which traditional communities such as the Orang Asli apply in the management of their environments. This approach is neither conservation-oriented nor destructive (Nicholas 2006).

The students, on the other hand, prioritised good health (most likely seen as the absence and prevention of disease), education (tertiary education being the ideal), and amenities (as available in modern society). This is hardly surprising given that the students' worldview and culture has been ingrained from a young age to prioritise such needs. Medical education has also 'conditioned' them to view health in this way. During one visit to Kampung Sebir, one of the village men (himself a father of four children) shared: 'Cukup makan, cukup pakai ... cukuplah' ('Enough to eat, enough to wear ... that is enough'). Indeed, Baer (1999), who has worked with, and published extensively about, the Orang Asli, similarly quoted an Orang Asli, who said: 'If you can eat and work, you're not sick' (Baer 1999, p. 9).

Regarding challenges for the Orang Asli, the responses of the medical students suggest they could perceive correctly the immediate issues unique to the indigenous people; that is, their cultural uniqueness, isolation and the barriers to healthcare. The latter was probably of greater interest to the students due to the nature of their profession. On the other hand, the students' responses suggest that they lacked an understanding of some of the deeper issues that affect the indigenous people described in the literature above; specifically, their socio-political marginalisation from mainstream society, the erosion of resources traditionally belonging to them, and paternalistic attempts to assimilate them

into mainstream society; eventually leading to the loss of land, loss of autonomy and poverty (Chung 2010). Many of these issues are social determinants of health for the indigenous people (Solar & Irwin 2010).

### Appreciating the Dynamic Nature of Culture

The students also underestimated the Orang Asli's capacity for change. The capacity for change within Orang Asli communities is certainly nothing new:

A foreigner who is friendly and who brings wonderful drugs which cure yaws and malaria will soon find himself in a position where many things are possible. Provided he does not force his investigations on his hosts before they have understood and accepted them, and provided he respects without question the beliefs and customs of the people, he will find them extremely cooperative (Ivan Polunin, 1953, cited in Baer 1999, p. 7).

Two recent studies on the Orang Asli demonstrate the improved awareness and expectations of the Orang Asli people concerning issues such as nutrition, education and health (Edwin & Chuen 2012; Ng et al. 2005). This highlights two main issues in relation to the students' responses: firstly, it is possible the students had formed stereotyped impressions of the Orang Asli; secondly, even if such stereotypes were true in a previously encountered context, it is possible that the students are yet to grasp that culture is dynamic and can change over time, from place to place, and even person to person. Teaching medical students about the realities and impacts of stereotypes can be a starting point for addressing racism and health inequities (Ly & Crawshoe 2015).

# Self-reflection and Continuous Improvement – the Basis for Engagement

We have already highlighted that the ability to reflect on oneself is key to building cultural competence (Cross et al. 1989). The students could highlight differences in their worldview and culture in comparison with the Orang Asli people. However, there is little to suggest they had considered the reasons their perspective could be different – that is, their worldview or culture has been shaped differently. A self-reflecting student may have asked themselves the following questions:

- —Why do I value education? Do the Orang Asli people think the same way as I do?
- —What does good health mean to me? How does that compare with what good health means to the Orang Asli people?

The self-reflecting student should be able to understand the influences their own culture or worldview brings to the relationship. The responses of the students to questions relating to community service are particularly insightful and highlight this point further. The students viewed community service as important for improving the health of the Orang Asli people. This view had two assumptions: firstly; the Orang Asli were unhealthy; secondly; the Orang Asli agreed they needed help to improve their health.

The view of students on the purpose of community service demonstrates the basis of their engagement with the Orang Asli. The differing worldviews and cultures combined with a lack of self-reflection eventually leads to an engagement that is focused on promoting health as viewed from the students' perspective. This is probably compounded by medical education that teaches students to frame patients in a biopsychosocial model: formulate a diagnosis and provide treatment. Such an approach immediately assumes the Orang Asli people have the 'problem' and the students have the 'solution'. Instead, the basis of every engagement should start with connecting, building relationships and organising the community (CTSA Consortium 2011).

The students had differing views on how community service would feature in their personal and professional development. The value of community service for their development is consistent with studies elsewhere (Benson et al. 2015; Daly et al. 2013). However, only a few recognised that learning in this area is a journey of continuous improvement, a core principle of cultural competency (Cross et al. 1989; Gorringe, et al. 2008). Cross et al. (1989, p. 34) states: '... the average worker cannot achieve comprehensive knowledge. More important is knowing where or how to obtain the necessary detailed information for use in specific cases.' For continuous improvement, we need to acknowledge that we can never know everything but also remain ready and eager to learn.

### Motivating the Volunteer – Stimulating Cultural Competence and Volunteerism

Gorringe et al. (2008) described individuals as beginning at a stage of being 'uninformed' and progressing to being 'aware', 'engaged', 'mobilized' and finally to a stage of 'action and implementation' when developing along the continuum of cultural competence. Through these stages, the individual first demonstrates cross-cultural awareness (knowledge), then crosscultural sensitivity (empathy), followed by cultural competence (behaviours, skills and practices), and finally cultural proficiency (embedding, and cultural shift within organisations) (Gorringe et al. 2008). When the responses of the medical students in this study are framed against this continuum, it is possible that the students were either at the stage of cross-cultural awareness or cross-cultural sensitivity within the continuum described above. Their responses indicate community service has empowered them to reach out, provided opportunities for them to 'practice their craft', and helped them develop knowledge and understanding concerning the indigenous community that they served.

As part of the project, the project mentors attempted various approaches to encourage the development of cultural competence in line with this continuum:

—We encourage the students to return to Kampung Sebir to continue looking after patients they have seen. Repeated visits can enhance the receptiveness of patients towards medical students, improve cross-cultural care, communication skills, and helps to build

stronger relationships by gaining trust and confidence (Maley et al. 2009).

- —We teach them that engagement should be based on building relationships on the following principles:
  - 1 Relationships should be based on compassion, humility and trust.
  - 2 Compassion can be demonstrated by showing genuine interest and concern about their daily lives and struggles.
  - 3 Humility means that the community is the expert on their own lives. The initial focus of the relationship is therefore to learn from the community rather than to seek to change them. Humility is also about learning and respecting their customs and cultures. For example, we would pay respect to the village elders at the start of every visit. We also took interest to learn about their customs and traditions by attending important events, e.g. town hall meetings, weddings.
  - 4 Trust can be earned through commitment in fulfilling agreements, in services offered and fulfilled, in time that is given.
- —Our debriefing sessions focus on building the volunteers. One of the key hopes we have is that the project in Kampung Sebir will not only impact the village but will also inspire volunteers to continue to positively impact lives in whatever capacity or role they find themselves. We recognised that many of the volunteers may not return to help and their visit with the villagers may be the only time they can be inspired. We teach them that community service is not just about Kampung Sebir it's what happens after that. We raise the following issues with the volunteers:
  - 1 What other needs do you see in the community around us? What will you do about it?
  - 2 What lessons have you learnt from today that you can apply to your lives in the future?
  - 3 You are being trained with skills that can heal and change lives. What will your life look like five years from now? Ten years from now?

The work in Kampung Sebir has inspired some of the volunteer students to step forward to lead projects of their own. The educational service in Kampung Sebir and the project in Kampung Tekir are led by students who previously volunteered with the project in Kampung Sebir (Ramasamy 2017).

#### Broader Strategies at an Institutional Level

The approach to build cultural competence for the students who visit Kampung Sebir should be viewed as a broader institutional effort. The following are some key areas that merit consideration:

—Medical students at IMU undergo formal training and have other informal exposures that increase their cultural competence. For example, all medical students are trained as part of the UNESCO Bioethics Curriculum that contains training in cultural diversity (UNESCO 2008). This is in addition to the

- numerous other informal exposures that are organised within a multicultural university, including but not limited to educational religious festivals from different ethnicities, events in a variety of community settings, and interaction with students and staff from diverse backgrounds. The greater challenge for the university and for IMU Cares is to assess how the exposure has contributed towards increasing the cultural competence of the students.
- —Successful working relationships with all stakeholders can help lay the groundwork for an environment that builds cultural competence. We learnt that relationships should be based on humility, mutual respect and equal standing with the communities to build lasting relationships. Stakeholders may include organisations who govern the affairs of the indigenous people and the influential people within the community itself, that is, the village elders as well as key individuals or groups within IMU itself who can influence the direction of the project or contribute resources or expertise.
- —IMU Cares learnt that training cultural competence requires teachers who are appropriate role models and culturally competent. Such teachers need to be supported by sufficient provision of time and resources (for example teaching materials, expertise) (Power et al. 2016). Regular self-reflection among academic staff is also crucial (Doutrich et al. 2012). Sorensen at al. (2017) advocates the need for medical schools to have recruitment policies that promote the recruitment of staff with competencies in this area and who themselves reflect the cultural diversity they serve. IMU consists of staff who come from diverse cultural backgrounds. Within IMU, there exists inherent knowledge and the potential to develop behaviours, skills and practices that increase cultural competence in staff, particularly those who lead IMU Cares projects. To this end, IMU Cares has leveraged on resources, such as the Center for Orang Asli Concerns (www.coac.org.my/), and has worked with organisations such as Malaysian Care (see www.malaysiancare.org/).
- —The support and stance of the university is vital for the success of community engagement projects of this nature. Projects that stand out can inspire change within the institution leading to institutional cultural change as described by Gorringe et al. (2012). To encourage this, IMU has sought to celebrate the successes of IMU Cares projects during its University Day. IMU's University Day is the university's annual celebratory event that highlights the achievements of the university in the past year, an event that is very much a part of IMU's culture. In doing this, IMU is taking a public stand on what it believes, both within the university and to the wider community.

### **CONCLUSION**

The study revealed that medical students who provided health services in an indigenous community have a developing cultural competency. We demonstrated this through an exploration of their perceptions of the indigenous community and their views of community service. The study also reflected on the project itself and provided insights into the teaching of cultural competence at a project and institutional level.

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_	Appendix A: Questionnaire for Kampung Sebir volunteers  Name: Form no.					
This questionnaire has 2 pages						
	ar participant,					
The paragraph as que an area pre-	ank you very much for joining us at Kampung Sebir. Your rticipation is very important to us. To make your experience beneficial for you as possible, we need you to complete this estionnaire. Please feel free to be as honest as possible. Your swers may be used for auditing, reporting, research, or esentations concerning this project, but no personal details will disclosed at any time.  Tell us the reasons you decided to join this project.					
2	In your view, who are the Orang Asli people (consider aspects like origins, culture, behaviour, personality, etc.)?					
3	In your view, what are the challenges faced by the Orang Asli people?					
4	How do you view community service?					
5	How is community service part of your life?					
6	In your opinion, how should community service be a part of your development as a doctor?					
7	In your opinion, what makes a good leader?					

Please turn over

8	What does it mean to be a good team member?							
ap	ase read each statement and circle the resporplies to you. Please ask for clarification of any not understand:				at yo	– ou		
	Question	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree		
1	I am confident about my communication skills with patients.							
2	Within a professional capacity, I am confident when communicating with my colleagues/fellow students.							
3	I feel confident about briefing my colleagues/ fellow students on a project I am working on.							
4	When in a group, I can facilitate the discussion							
5	My colleagues/ fellow students feel confident with me as a leader.							
6	I feel confident when communicating with Orang Asli patients.							
7	Orang Asli patients understand me when I communicate with them.							
8	When working on a project, I can handle last minute changes.							
9	When working on a project, I am able to cope when expectations change.							
10	I can prioritise when asked to do several things at once.							
11	My work is completed on time.							
12	When working in a team, I can appreciate the strengths and weaknesses of other team members							
13	When working in a team, I support other people in their tasks beyond what I have been assigned to do.							
14	I am comfortable working in a rural setting.							
15	This project has helped me in my career.							

I perform community service on a regular basis.In the future, I will perform community service

18 I intend to encourage others to get involved in

on a regular basis.

community service

#### **REFERENCES**

Azila, NM, Rogayah, J & Zabidi-Hussin, ZA 2006, 'Curricular trends in Malaysian Medical Schools: Innovations within', *Annals of the Academy of Medicine Singapore*, vol. 35, no. 9, pp. 647–54.

Baer, A 1999, Health, disease & survival: A biomedical and genetic analysis of the Orang Asli of Malyasia, Center for Orang Asli Concerns, Subang Jaya.

Bainbridge, R, McCalman, J, Clifford, A & Tsey, K 2015, 'Cultural competency in the delivery of health services for Indigenous people', Closing the gap clearing house, Austalian Institute of Health and Welfare, viewed 7 December 2016, <a href="http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Our\_publications/2015/ctgc-ip13.pdf">http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Our\_publications/2015/ctgc-ip13.pdf</a>

Benson, J, Ryder, C, Gill, M & Balabanski, A 2015, 'A brief experience for medical students in a remote Aboriginal community', *Australian Family Physician*, vol. 44, no. 10, pp. 752–59, viewed 7 December 2016, <a href="https://www.ncbi.nlm.nih.gov/pubmed/26484493">https://www.ncbi.nlm.nih.gov/pubmed/26484493</a>

Betancourt, JR, Green, AR & Carrillo, JE 2002, *Cultural competence in health care: Emerging frameworks and practical approaches*, the Commonwealth Fund, New York

Braun, V & Clarke, V 2006, 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, vol. 3, no. 2, pp. 77–101, viewed 7 December 2016, <a href="http://www.tandfonline.com/doi/abs/10.1191/1478088706qp063oa">http://www.tandfonline.com/doi/abs/10.1191/1478088706qp063oa</a>

Clinical and Translational Science Awards (CTSA) Consortium, Community Engagement Key Function Committee Task Force on the Principles of Community Engagement 2011, *Principles of Community Engagement*, second edition, NIH Publication no 11–7782, viewed 21 May 2017, <a href="https://www.atsdr.cdc.gov/communityengagement/index.html">https://www.atsdr.cdc.gov/communityengagement/index.html</a>

Chung, Yi F 2010, 'The Orang Asli of Malaysia: Poverty, sustainability and capability approach', masters thesis, Lund University

Cross, TL, Bazron, BJ, Dennis, KW & Isaacs, MR 1989, 'Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed', cited by the National Center for Cultural Competence, viewed 16 April 2017, <a href="https://nccc.georgetown.edu/foundations/frameworks.html">https://nccc.georgetown.edu/foundations/frameworks.html</a>

Curran, V & Rourke, J 2004, 'The role of medical education in the recruitment and retention of rural physicians', *Medical Teacher*, vol. 26, no. 3, pp. 265–72 doi: https://doi.org/10.1080/0142159042000192055

Daly, M, Perkins, D, Kumar, K, Roberts, C & Moore, M 2013, 'What factors in rural and remote extended clinical placements may contribute to preparedness for practice from the perspective of students and clinicians?', *Medical Teacher*, vol. 35, no. 11, pp. 900–07, viewed 7 December 2016, <a href="https://www.ncbi.nlm.nih.gov/pubmed/23930600">https://www.ncbi.nlm.nih.gov/pubmed/23930600</a>

Department of Health 2009, 'Cultural responsiveness framework: Guidelines for Victorian health services, rural and regional health and aged care services', Department of Health, Victoria, viewed 16 April 2017, <a href="https://www2.health.vic.gov.au/about/populations/cald-health">https://www2.health.vic.gov.au/about/populations/cald-health</a>

Department of Statistics Malaysia 2010, 'Population and housing census of Malaysia 2010: Preliminary count report', Putrajaya

Dogra, N, Reitmanova, S & Carter-Pokras, O 2009, 'Twelve tips for teaching diversity and embedding it in the medical curriculum', *Medical Teacher*, vol. 31, no, 11, pp. 990–93 doi: <a href="https://doi.org/10.3109/01421590902960326">https://doi.org/10.3109/01421590902960326</a>

Doutrich, D, Arcus, K, Dekker, L, Spuck, J & Pollock-Robinson, C 2012, 'Cultural safety in New Zealand and the United States: Looking at a way forward together', *Journal of Transcultural Nursing*, vol. 23, no. 2, pp. 143–150 doi: <a href="https://doi.org/10.1177/1043659611433873">https://doi.org/10.1177/1043659611433873</a>

Edwin, M & Chuen, EM 2012, 'Education and health awareness among indigenious people: A study in Perak, Malaysia', *ARPN Journal of Science and Technology*, vol. 2, no. 8, pp. 745–49.

Endicott, K 2015, Malaysia's original people: Past, present and future of the Orang Asli, NUS Press, Singapore

Georgetown University 2004, 'Cultural competence in health care: Is it important for people with chronic conditions?' issue brief no. 5, viewed 1 February 2017, <a href="https://hpi.georgetown.edu/agingsociety/pubhtml/cultural/cultural.html#1">https://hpi.georgetown.edu/agingsociety/pubhtml/cultural.html#1</a>

Gorringe, S & Spillman, D 2008, 'Creating stronger smarter learning communities: The role of culturally competent leadership', paper presented at the World Indigenous Peoples Conference on Education, Melbourne, 7–11 December

Goode, TD, Dunne, CM, Bronheim, SM 2006, 'The evidence base for cultural and linguistic competency in health care', National Center for Cultural Competence, viewed 16 April 2017, <a href="http://www.commonwealthfund.org/publications/fund-reports/2006/oct/the-evidence-base-for-cultural-and-linguistic-competency-in-health-care">http://www.commonwealthfund.org/publications/fund-reports/2006/oct/the-evidence-base-for-cultural-and-linguistic-competency-in-health-care</a>

Green, M, Zick, A & Makoul, G 2009, 'Defining professionalism from the perspective of patients, physicians, and nurses', *Academic Medicine*, vol. 84, no. 5, pp. 566–73 doi: <a href="https://doi.org/10.1097/ACM.0b013e31819fb7ad">https://doi.org/10.1097/ACM.0b013e31819fb7ad</a>

Henry, JA, Edwards, BJ & Crotty, B 2009, 'Why do medical graduates choose rural careers?' *Rural and Remote Health*, vol. 9, no. 1083, viewed 21 May 2017, <a href="http://www.rrh.org.au/publishedarticles/article\_print\_1083.pdf">http://www.rrh.org.au/publishedarticles/article\_print\_1083.pdf</a>

Horvat, L, Horey, D, Romios, P & Kis-Rigo, J 2014, 'Cultural competence education for health professionals', Cochrane,  $\underline{\text{http://www.cochrane.}}$   $\underline{\text{org/CD009405/COMMUN}}$  cultural-competence-education-for-health-professionals

Idrus, R 2011, 'The discourse of protection and the Orang Asli in Malaysia', *Kajian Malaysia*, vol. 29, supp. 1, pp. 53–74

Indigenous Allied Health Australia (IAHA) 2015, 'Cultural responsiveness in action: An IAHA framework', viewed 16 April 2017, <a href="http://iaha.com.au/">http://iaha.com.au/</a>

Jha, V, Mclean, M, Gibbs, TJ & Sandars, J 2015, 'Medical professionalism across cultures: A challenge for medicine and medical education', *Medical Teacher*, vol. 37, no. 1, pp. 74–80, viewed 7 December 2016, <a href="https://www.ncbi.nlm.nih.gov/pubmed/25073712">https://www.ncbi.nlm.nih.gov/pubmed/25073712</a>

Lim, VKE 2008, 'Medical education in Malaysia', *Medical Teacher*, vol. 30, no. 2, pp. 119–23 doi: https://doi.org/10.1080/01421590801942102

Ly, A & Crawshoe, L 2015, 'Stereotypes are reality: Addressing stereotyping in Canadian aboriginal medical education', *Medical Education*, vol. 49, no. 6, pp. 612–22 doi: <a href="https://doi.org/10.1111/medu.12725">https://doi.org/10.1111/medu.12725</a>

Lye, TP 2011, 'A history of Orang Asli studies: Landmarks and generations', *Kajian Malaysia*, vol. 29, supp. 1, pp. 23–52

Lye, TP 2013, 'Making friends in the rainforest: "Negrito" adaptation to risk and uncertainty', *Human Biology*, vol. 85, nos. 1–3, pp. 417–44

Maley, M, Worley, P & Dent, J 2009, 'Using rural and remote settings in the undergraduate medical curriculum: AMEE guide no. 47', *Medical Teacher*, vol. 31, no. 11, pp. 969–83 doi: <a href="https://doi.org/10.3109/01421590903111234">https://doi.org/10.3109/01421590903111234</a>

Masron, T, Masami, F & Ismail, N 2013, 'Orang asli in Peninsular Malaysia: Population, spatial distribution and socio-economic condition', *Ritsumeikan Journal of Social Sciences and Humanities*, vol. 6, pp. 75–115, viewed 7 December 2016, <a href="http://www.ritsumei.ac.jp/acd/re/k-rsc/hss/book/pdf/vol06\_07.pdf">http://www.ritsumei.ac.jp/acd/re/k-rsc/hss/book/pdf/vol06\_07.pdf</a>

McGraw-Hill Concise Dictionary of Modern Medicine 2002, The McGraw-Hill Companies, Inc., viewed 1 February 2017, <a href="http://medical-dictionary.thefreedictionary.com/cultural+competence">http://medical-dictionary.thefreedictionary.com/cultural+competence</a>

Murray, RB, Larkins, S, Russell, H, Ewen, S & Prideaux, D 2012, 'Medical schools as agents of change: Socially accountable medical education', *Medical Journal of Australia*, vol. 196, no. 10, pp. 653 doi: <a href="https://doi.org/10.5694/mja11.11473">https://doi.org/10.5694/mja11.11473</a>

National Center for Cultural Competence (NCCC), Conceptual Frameworks/Models, Guiding Values and Principles, viewed 24 April 2017, <a href="https://nccc.georgetown.edu/foundations/frameworks.html">https://nccc.georgetown.edu/foundations/frameworks.html</a>

Ng, WC, Zalilah, MS, Khor, GL, Wan Norlida, WN, Haslinah, A, Shashikala, S, Mirnalini, K, Nawalyah, AG & Hejar, AR 2005, 'Qualitative study on perceptions and knowledge of Orang Asli mothers on child health and nutrition, *Malaysian Journal of Nutrition*, vol. 11, no. 2, pp. 75–88

Nicholas, C 2006, 'Biodiversity, local livelihoods and the link with culture, politics and development', paper presented at the 10th International Congress for Ethnobiology, Chiang Rai, Thailand, 6–9 November

Nicholas, C 2000, 'The Orang Asli and the contest for resources: Indigenous politics, development and identity in peninsular Malaysia', International Work Group on Indigenous Affairs, Copenhagen

Nicholas, C, Engi, J & The, YP 2010, 'The Orang Asli and the UNDRIP: From rhetoric to recognition', Center for Orang Asli Concerns, Subang Jaya

Nicholas, C & Lasimbang, J 2004, 'Biodiversity and indigenous knowledge systems in Malaysia', Center for Orang Asli Concerns, Subang Jaya

Polunin, I 1953, 'The medical natural history of Malayan aborigines', *Medical Journal of Malaya*, vol. 9, pp. 55–174

Power, T, Virdun, C, Sherwood, J, Parker, N, Van Balen, J, Gray, J & Jackson, D 2016, 'REM: A collaborative framework for building indigenous cultural competence', *Journal of Transcultural Nursing*, vol. 27, no. 5, pp. 439–46 doi: <a href="https://doi.org/10.1177/1043659615587589">https://doi.org/10.1177/1043659615587589</a>

Price-Robertson, R & McDonald, M 2011, 'Working with indigenous children, families, and communities', CAFCA practice sheet, Communities and Families Clearinghouse Australia, viewed 7 December 2016, <a href="https://aifs.gov.au/cfca/sites/default/files/publication-documents/ps6.pdf">https://aifs.gov.au/cfca/sites/default/files/publication-documents/ps6.pdf</a>

Ramasamy, RP 2017, 'Community project brings insight on diseases and social issues to villagers', *IMU News*, viewed on 24 April 2017, <a href="http://imunews.imu.edu.my/people/students/community-project-brings-insight-diseases-social-issues-villagers/">http://imunews.imu.edu.my/people/students/community-project-brings-insight-diseases-social-issues-villagers/</a>

Rourke, J 2010, 'How can medical schools contribute to the education, recruitment and retention of rural physicians in their region?', Bulletin

of the World Health Organization, vol. 88, pp. 395–96 doi:  $\underline{\text{https://doi.}}$   $\underline{\text{org/10.2471/BLT.09.073072}}$ 

Solar, O & Irwin, A 2010, 'A conceptual framework for action on the social determinants of health', Social Determinants of Health Discussion Paper 2, World Health Organization, pp. 79

Sorensen, J, Norredam, M, Dogra, N, Essink-Bot, ML, Suurmond, J & Krasnik, A 2017, 'Enhancing cultural competence in medical education', *International Journal of Medical Education*, vol. 8, pp. 28–30 doi: <a href="https://doi.org/10.5116/ijme.587a.0333">https://doi.org/10.5116/ijme.587a.0333</a>

Toshihiro, N 2009, 'Living on the periphery: Development and Islamisation among the Orang Asli in Malaysia', Center for Orang Asli Concerns, Subang Jaya

Trudgen, R 2000, 'Why warriors lie down and die: Towards an understanding of why the Aboriginal people of Arnhem Land face the greatest crisis in health and education since European contact', Aboriginal Resource and Development Services Inc., Darwin

Tufts University, The Talloires Network 2013, MacJannet Prize 2013 winners, viewed 1 February 2017, <a href="http://talloiresnetwork.tufts.edu/macjannet-prize-2013-winners/">http://talloiresnetwork.tufts.edu/macjannet-prize-2013-winners/</a>

Turner, MA, Kelly, M, Leftwick, P & Dogra, N 2014, 'Tomorrow's doctors and diversity issues in medical education', *Medical Teacher*, vol. 36, no. 9, pp. 743–45 doi: <a href="https://doi.org/10.3109/0142159X.2014.909586">https://doi.org/10.3109/0142159X.2014.909586</a>

UNESCO 2008, Bioethics Core Curriculum, Unit 12, viewed 5 February 2017, <a href="http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/ethics-education-programme/">http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/ethics-education-programme/</a>

Vidal ,C 2008, 'Wat is een wereldbeeld? (What is a worldview?)' in Van Belle H & Van der Veken J (eds), Nieuwheid denken. De wetenschappen en het creatieve aspect van de werkelijkheid, Acco, Leuven

Wilson, L 1982, 'The skills of ethnic competence', unpublished resource paper, University of Washington, Seattle