Improving medication adherence amongst Aboriginal and Torres Strait Islander peoples

Surabhi Kumble
Fourth Year Medicine (Graduate)
Monash University
BA, LLB (Hons)

Surabhi is a graduate-entry medical student with a strong interest in global health issues. She is particularly interested in global health inequities, including issues surrounding Aboriginal and Torres Strait Islander health, refugee health, and health and human rights. In her spare time, she enjoys travelling and practising her French and Spanish language skills.

Introduction

Aboriginal and Torres Strait Islander peoples represent a minority population in Australia, comprising approximately 2.5% of the total Australian population in 2011. [1] There are a number of challenges faced by Aboriginal and Torres Strait Islander peoples, due to social, economic and health differentials as a consequence of the history of marginalisation. [3] Despite improvement in detection and management of chronic disease, Aboriginal and Torres Strait Islander peoples continue to have higher incidences of chronic diseases such as cardiovascular disease and diabetes mellitus. [2,4]

A contributing factor to this gap in health statistics is a low rate of adherence to medication amongst Aboriginal and Torres Strait Islander peoples. [5] While this problem is not unique to this population, there is global evidence that the rates of adherence to medication are lower amongst marginalised groups. [6] In order to help reduce the burden of disease amongst this group, it is important to explore some reasons for non-adherence that are unique to Aboriginal and Torres Strait Islander peoples. In particular, this article will focus on the impact of cultural insensitivity and problems with access to healthcare and medications amongst this population. It will suggest how adherence can be improved through improving cultural sensitivity and access to healthcare, in order to reduce the gap in health statistics between Aboriginal and Torres Strait Islander peoples and non-Aboriginal and Torres Strait Islander peoples.

Impact of non-adherence

The World Health Organisation (WHO) estimates that, in developed countries, 50% of patients fail to comply with advice given by medical practitioners, including both medication and lifestyle advice. [6] Non-adherence with medication is a complex problem that is multi-factorial, and can contribute both to the failure of treatment [5] and increased costs to the healthcare system. [7] Often, this lack of adherence is intentional due to side effects, perceived drug effectiveness, and cost. [8] The implications of these barriers to adherence for Aboriginal and Torres Strait Islander peoples will be discussed below, with an emphasis on cultural barriers preventing adherence. [9]

Chronic diseases require adherence to medications and lifestyle modifications, in order to slow disease progression and prevent complications. [10] Therefore, non-adherence to either form of treatment can contribute to the perpetuation of this gap in health statistics. For example, in general, Aboriginal and Torres Strait Islander peoples have higher rates of cardiovascular disease than non-Aboriginal and Torres Strait Islander peoples. [3] Given that medication and lifestyle modifications reduce risk factors of cardiovascular disease and improve mortality, failure to comply with these treatments can result in exacerbation of disease rates. [3] Similarly, diabetes mellitus is a condition that is more prevalent amongst the Aboriginal and Torres Strait Islander population, and its morbidity and mortality are also disproportionately higher amongst this population. [10] Poorly controlled diabetes mellitus, through lack of adequate pharmacological management, can have serious vascular complications. This perpetuation of health inequality would in turn have a negative impact on national health expenditure, leading to increased costs to the health system. [9]

Barriers to adherence

According to the WHO, there are five dimensions that can impair a patient's adherence with medication. [6] These are the healthcare team or system, socioeconomic factors, the nature of the therapy, the patient and the medical condition. [6] The first four dimensions are especially relevant to Aboriginal and Torres Strait Islander peoples in both rural and urban settings, and will be discussed below.

Socioeconomic factors

First, as stated by the WHO, socioeconomic factors play an important role in the low rates of adherence amongst Aboriginal and Torres Strait Islander peoples. Aboriginal and Torres Strait Islander peoples have a lower income status than non-Aboriginal and Torres Strait Islander peoples, and also have a higher unemployment rate. [11] This may therefore affect adherence to long-term, expensive medical treatment. Geographic location has previously been a barrier to accessing medications for some Aboriginal and Torres Strait Islander communities [3] and is within the WHO's healthcare system dimension. However, the Australian Government has, in recent years, initiated national programs and legislated to improve access to prescription medications for Aboriginal and Torres Strait Islander peoples. This will be discussed below.

Cultural insensitivity

Of the Aboriginal and Torres Strait Islander peoples who do live in urban centres, many report cultural insensitivity as being the main barrier to receiving care from services that do not specialise in Aboriginal and Torres Strait Islander health. [12] This in turn can influence medication uptake and adherence. In particular, the non-Aboriginal and Torres Strait Islander healthcare system can be seen as unwelcoming. [11] This is a barrier under WHO's healthcare team dimension. For example, one Aboriginal and Torres Strait Islander patient was unhappy because he was told to go to an Aboriginal and Torres Strait Islander health service, when he presented to a service that does not specialise in Aboriginal and Torres Strait Islander health. [12] This attitude often fosters a poor relationship between the clinician and the individual. [11]

Miscommunication between health practitioner and patient contributes to a lack of adherence to medications. For example, the services outside the Aboriginal and Torres Strait Islander system often do not provide enough support for people who only speak traditional languages within communities. [5] Cass *et al.* (2002) demonstrated that communication by healthcare service providers to Aboriginal

and Torres Strait Islander peoples who preferred to communicate in languages other than English was often poor. [13]

Other causes of miscommunication were the health practitioner failing to share control in the consultation with the patient, failing to overcoming language barriers by not using interpreters, and using too much biomedical language during the consultation. [13] When the patient does not feel involved in decision-making, he or she is less motivated to adhere to treatment advice. [5] Furthermore, miscommunication is often unrecognised by the health practitioner, meaning that concepts are never clarified. [13] While most Aboriginal and Torres Strait Islander peoples are fluent in English, such miscommunication can have a negative impact on adherence to treatment for many people, leading in turn to adverse health outcomes. [13]

Furthermore, services that do not specialise in Aboriginal and Torres Strait Islander health sometimes do not accommodate Aboriginal and Torres Strait Islander cultural practices, which may hinder medication adherence. In some Aboriginal and Torres Strait Islander communities, traditional healers can be the first point of call for health problems. [14] Only when the traditional healers are unable to provide a solution does an individual from such a community approach the Western health system. [14] As a consequence, Aboriginal and Torres Strait Islander peoples may be less likely to comply with prescriptions due to unfamiliarity with Western medicine. [13] Furthermore, the concept of prophylactic medication does not exist in some Aboriginal and Torres Strait Islander cultures, so some community members may be reluctant to take medications that are not for the treatment of acute conditions. [15]

The family plays an important role in many Aboriginal and Torres Strait Islander people's health. [5] Therefore, the family itself can act as a barrier to medication adherence in a number of ways. [5] First, there can be a culture of sharing medications in some communities. [5] This can result in under-treatment of the person who was prescribed the medication. Secondly, some families can influence a person's decision to adhere to medication, by failing to support the person to adhere to medication, or by encouraging the notion that medication adherence is not cultural.[5] Therefore, educating the community and seeking familial support is important to improve adherence rates to therapies amongst some Aboriginal and Torres Strait Islander peoples. [5]

Healthcare practitioners' role

There are a number of issues with adherence due to healthcare practitioner behaviours. First, due to cultural differences, a lack of flexibility when prescribing medication has been identified as contributing to non-adherence amongst some groups. [12] For example, health service providers are not always using long-acting medication preparations where possible, nor appropriate combination medications, to reduce the number of tablets that the patient has to take. [15] This falls under the WHO dimension of the nature of the therapy, and is something that health service providers should be aware of when engaging in culturally sensitive medical practice.

Similarly, medical practitioners themselves can be non-adherent to clinical practice guidelines when providing treatment to some Aboriginal and Torres Strait Islander peoples. [16] The study by Fürthauer *et al*. (2013) showed that medical practitioners may deliberately deviate from a clinical guideline for a particular patient, if they feel that the patient may not adhere to the treatment in the long-term, due to cultural practices or socioeconomic background. [16] This comes under the WHO healthcare team dimension, and is an important cause of non-adherence that needs to be examined closely in the Australian context.

The WHO states that patients should be supported, not blamed, for a lack of adherence. [6] Therefore, practitioners should take an active role to ensure that the healthcare environment supports adherence to medication. [6] For example, practitioners should work with patients to create a therapy regime that fits the patient's lifestyle. [6] It has been shown that a shift in attitude amongst healthcare practitioners to a more empathetic, collaborative approach with their patients achieves better adherence rates. [6] This includes the practitioner taking the socio-demographic characteristics of the patient into account. [6]

History of marginalisation

In addition, some Aboriginal and Torres Strait Islander peoples feel that health services should recognise the history surrounding racism and discrimination against Aboriginal and Torres Strait Islander peoples, in order to facilitate trust and improve service uptake. [12] This issue is within WHO's patient-specific dimension, and may eliminate any feelings of 'cultural shame' for accessing Western medication due to the history of marginalisation of Aboriginal and Torres Strait Islander peoples. [3] This indicates that more research needs to be undertaken on the psychological impact of marginalisation on Aboriginal and Torres Strait Islander and its link to non-adherence.

Minimising non-adherence

There are a two main ways to improve adherence rates amongst Aboriginal and Torres Strait Islander peoples. One is by improving cultural sensitivity amongst health service providers to provide appropriate services to Aboriginal and Torres Strait Islander peoples, and welcome them to services outside the Aboriginal and Torres Strait Islander system. The other way is by subsidising medications so that Aboriginal and Torres Strait Islander peoples can have better access to treatments.

Improving cultural sensitivity

In order to minimise non-adherence, it is imperative that the health system be more culturally sensitive towards Aboriginal and Torres Strait Islander peoples. [3] Service providers outside the Aboriginal and Torres Strait Islander health system need to be trained in the cultural values and healthcare beliefs of Aboriginal and Torres Strait Islander communities, in order to provide culturally sensitive advice and treatment. [3] Service providers should also be trained in communicating concepts to non-English speaking patients. [4] This involves the use of interpreters, which has been found to be beneficial in improving communication between Aboriginal and Torres Strait Islander peoples and health practitioners. [4] If required, these individuals can also be educated about medications through the use of pictures and anatomical models. [14] Similarly, medical practitioners should be encouraged to adhere to clinical guidelines when prescribing medications and to treat this group as they would any other group of patients. [16]

Another way of creating a culturally sensitive environment in healthcare centres is to better engage Aboriginal and Torres Strait Islander peoples in this process. [5] While interpreter services clearly fulfil this objective, [3] their role can be supplemented with other culturally sensitive practices. For example, Aboriginal and Torres Strait Islander peoples may feel more welcome if they see members of their communities in brochures. [5] It has been suggested that pharmacies displaying Aboriginal and Torres Strait Islander paintings and employing more Aboriginal and Torres Strait Islander staff will make Aboriginal and Torres Strait Islander peoples more likely to seek information and participate in screening programs. [5]

Increased engagement of Aboriginal and Torres Strait Islander peoples with health workers can be achieved by employing more Aboriginal and Torres Strait Islander Health Workers (AHWs), who have often lived in the region where they work. [17] AHWs act in a variety of capacities to better liaise with Aboriginal and Torres Strait Islander peoples in healthcare settings and facilitate a more positive experience. [5] They undertake clinical work, such as providing health checks and administering vaccinations, or conduct research and implement community development projects. [17] One study found that AHWs, together with pharmacists, have the potential to improve adherence with appropriate funding and education. [5] However more

research needs to be undertaken to further evaluate the role of AHWs, specifically in reducing non-adherence.

A difficulty, however, in building culturally-sensitive practices, is that there are many Aboriginal and Torres Strait Islander cultures in Australia, not simply one unified culture. Therefore, a strategy that works for one group may not necessarily work for another. [5] Aboriginal and Torres Strait Islander peoples should therefore be involved in the formulation of policy strategies with health services to increase adherence. [3]

Subsidising medications

It is also necessary to consider the fiscal situation of individuals in Aboriginal and Torres Strait Islander communities. Aboriginal and Torres Strait Islander peoples have a lower median weekly household income than non-Aboriginal and Torres Strait Islander peoples. [1] Therefore, access to subsidised medication may be a way to improve adherence to medication. There are a number of initiatives funded by the Australian Government to try to improve adherence to medications.

As part of the Australian National Medicines Policy, a Quality of Use of Medicines (QUM) strategy was introduced in Australia in 1992. [18] This strategy included evaluating and improving Aboriginal and Torres Strait Islander health in remote areas through a number of ways, including the development of guidelines for culturally appropriate pharmaceutical services and evaluating medication use. [18] On the whole, it appears that the program achieved a number of its objectives, including improving Aboriginal and Torres Strait Islander health. [19] It was intended to complement a legislative change made around the same time to the *National Health Act 1953*.

This legislative change was made by the Australian Government to improve Aboriginal and Torres Strait Islander peoples' access to the Pharmaceutical Benefits Scheme (PBS). Section 100 of the *National Health Act 1953* gives the Minister for Health the power to make special arrangements for the supply of pharmaceutical benefits to people who are living in isolated areas, are receiving treatment for which pharmaceutical benefits are inadequate, or for whom pharmaceutical benefits can be more conveniently supplied. [20] If the Minister exercises this power, pharmacies can supply remote Aboriginal and Torres Strait Islander primary healthcare services with PBS-listed drugs in bulk, and Aboriginal and Torres Strait Islander patients can access prescription medication free of charge. [20]

The impact of this scheme on access to medications for Aboriginal and Torres Strait Islander peoples in remote areas has been evaluated. [21] It has been found that access to subsidised medications has significantly improved due to the S100. [21] However, it has been recommended that non-PBS medications commonly used by Aboriginal and Torres Strait Islander peoples should be included under S100, in order to further improve access. [21] In addition, there are limitations for people who live just outside the geographic boundaries and are not able to access the medications. [21] Therefore, it has been recommended that the section's scope be broadened. [21]

More recently, the Australian Government Department of Health and Ageing began funding the Quality Use of Medicines Maximised for Aboriginal and Torres Strait Islander People Program (QUMAX) in 2008. [22] The aim of this program is to improve adherence with, and access to, medication amongst non-remote Aboriginal and Torres Strait Islander populations specifically. [23] This is achieved by providing financial assistance to Aboriginal and Torres Strait Islander health services to purchase medications, as well as providing patients directly with co-payments. [23] In addition, the Closing the Gap – Copayment Measure Program was introduced in 2010 to improve access to PBS medications for all Aboriginal and Torres Strait Islander peoples who are living with a chronic disease and required treatment. [24] Eligible patients are entitled to receive a waiver on the co-payment for medications under the PBS. [24]

In 2011, the Australian Government undertook an evaluation of the QUMAX and found that there was a 14% increase in PBS utilisation by Aboriginal and Torres Strait Islander peoples, especially for anti-hypertensive, lipid-lowering and asthma medications. [23] Furthermore, there was an 18% increase in utilisation among patients who were not entitled to concessional medications. [23] Some health services combined the QUMAX initiative with Aboriginal and Torres Strait Islander health assessments and care plans, which further incentivised patients to take up subsidised medications. [23]

QUMAX has arguably shown efficacy in reducing the cost barrier to accessing and complying with medications. [23] However, it is not clear whether it has eradicated inequities in PBS expenditure between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander populations. [23] Therefore, it should continue, taking into account the recommendations set out in the evaluation. In particular, measures to address geographical barriers by providing transport for the delivery and the collection of medications should be implemented. [23] Furthermore, the recommendation to improve cultural training amongst pharmacists should be given special attention. [23]

Conclusion

Non-adherence with medication is a significant problem. It leads to negative health outcomes for the individual, and can result in the public health system incurring high costs. Given that the rates of non-adherence and chronic disease are greater amongst the Aboriginal and Torres Strait Islander population, specific measures need to be taken in order to minimise non-adherence. Healthcare workers should be trained to be more culturally sensitive and to provide clear, unambiguous treatment advice. They should also take care when prescribing medications to provide treatments with the lowest number of tablets appropriate. Healthcare services should be made more welcoming to Aboriginal and Torres Strait Islander peoples by including Aboriginal and Torres Strait Islander artwork, employing more Aboriginal and Torres Strait Islander staff, and involving Aboriginal and Torres Strait Islander communities in the policy-making process. Policy-makers need to be aware that there are many distinct Aboriginal and Torres Strait Islander cultures, not just a single homogenous one. Finally, medications should continue to be subsidised to Aboriginal and Torres Strait Islander peoples, to ensure that those most vulnerable to chronic illness are able to access treatment.

Conflict of interest

None declared.

Correspondence

S Kumble: skum24@student.monash.edu

References

[1] Australian Bureau of Statistics. 2011 Census QuickStats [Internet]. 2011 [cited 2013 August 4]. Available from: http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/0

[2] Healey, J, editor. The Health of Indigenous Australians. Balmain: SpinneyPress; 2010.

[3] Davidson P, Abbott P, Davison J, DiGiacomo M. Improving Medication Uptake in Aboriginal and Torres Strait Islander Peoples. Heart Lung Circ. 2010; 19(5-6):372-7.

[4] Roe Y, Zeitz C, Fredericks B. Study Protocol: establishing good relationships between patients and health care providers while providing cardiac care. Exploring how patient-clinician engagement contributes to health disparities between Indigenous and non-Indigenous Australians in South Australia. BMC Health Serv. Res. 2012; 12:397-407.

[5] Hamrosi K, Taylor S J, Aslani P. Issues with prescribed medications in Aboriginal communities: Aboriginal Health Workers' perspectives. Rural Remote Health. 2006; 6(2):557-569.

[6] World Health Organisation. Adherence to Long-Term Therapies Evidence for Action. Switzerland: World Health Organisation; 2003.

[7] Roller, L. Medication adherence in tribal Aboriginal children in urban situations. Curr Ther. 2002; 43(11):64-5.

[8] Laba T-L, Brien J-A, Jan S. Understanding rational non-adherence to medications. A discrete choice experiment in a community sample in Australia. BMC Fam Pract. 2012; 13(61).

[9] Donato R and Segal L. Does Australia have the appropriate health reform agenda to close the gap in Indigenous health? Aust Health Rev. 2013; 37:232-238.

[10] Bailie R, Si D, Dowden M, O'Donoghue L, Connors C, Robinson G, Cunningham J, Weeramanthri T. Improving organisational systems for diabetes care in Australian Indigenous communities. BMC Health Serv. Res. 2007; 7:67-78.

[11] Altman J. The Economic and Social Context of Indigenous Health. In: Thomson N,

editor. The Health of Indigenous Australians. Perth: Oxford University Press; 2003.
[12] Lau P, Pyett P, Burchill M, Furler J, Tynan M, Kelaher M et al. Factors influencing access to Urban General Practices and Primary Health Care by Aboriginal Australians—A qualitative study. AltNat. 2012; 8(1):66-84.
[13] Cass A, Lowell A, Christie M, Snelling PL, Flack M, Marrnganyin B et al. Sharing the true stories: improving communication between Aboriginal patients and health care workers. Med J Aust 2002; 176(10):466-470.
[14] McGrath, P. The biggest worry..': research findings on pain management for Aboriginal and Torres Strait Islander peoples in Northern Territory, Australia. Rural Remote Health. 2006; 6(3):549-562.
[15] Larkin C, Murray R. Assisting Aboriginal and Torres Strait Islander patients with medication management. Aust Prescr. 2005; 28(5):123-125.
[16] Fürthauer J, Flamm M, Sönnichsen A. Patient and physician related factors of adherence to evidence based guidelines in diabetes mellitus type 2, cardiovascular disease and prevention: a cross sectional study. BMC Fam Pract. 2013; 14(47).
[17] Mitchell M, Hussey L. The Aboriginal and Torres Strait Islander Health Worker. Med J Aust. 2006; 184(10):529-530.
[18] Emerson L, Bell K, Manning R. Quality Medication Use in Aboriginal Communities. Paper presented at: The 5th National Rural Health Conference; 1999 March 14-17; Adelaide, South Australia.
[19] Smith, A. Quality use of medicines – are we nearly there yet? Aust Prescr. 2012; 35:174-5.
[20] *National Health Act 1953 [Cth] s 100.*
[21] Kelaher M, Taylor-Thomson D, Harrison N, O'Donoghue L, Dunt D, Barnes T et al. Evaluation of PBS Medicine Supply Arrangements for Remote Area Aboriginal Health Services Under S100 of the National Health Act. Co-operative Research Centre for Aboriginal Health and Program Evaluation Unit, University of Melbourne. Melbourne; 2004. Report No.: RFT:102/0203.
[22] Couzos S, Sheedy V, Thiele DD. Improving Aboriginal and Torres Strait Islander and Torres Strait Islander people's access to medicines - the QUMAX program. Med J Aust. 2011; 195(2):62-63.
[23] Wallace A, Lopata T, Benton M, Keevy N, Jones L, Rees A et al. Evaluation of the Quality Use of Medicines Maximised for Aboriginal and Torres Strait Islander and Torres Strait Islander Peoples (QUMAX) Program. Australia: Urbis; 2011.
[24] Medicare. Closing the Gap—PBS Co-payment Measure [Internet]. 2010 [updated 1 July 2010, cited 2013 August 5]. Available from: http://www.medicareaustralia.gov.au/provider/pbs/prescriber/closing-the-gap.jsp