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ORIGINAL RESEARCH

Issues with prescribed medications in Aboriginal communities: Aboriginal Health Workers' perspectives

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ABSTRACT

Introduction: The health of Indigenous Australians remains appalling. The causes of this situation are multi-factorial, however one contributing factor is poor medication compliance within Aboriginal populations. Anecdotal evidence provided by Aboriginal health workers in western New South Wales (NSW), Australia, has suggested that there are problems associated with the use of prescribed medications within the Aboriginal community. Aboriginal health workers form a core component of the Aboriginal health service sector and they have an in-depth knowledge of the community and its healthcare provision, as well as a familiarity with clinic patients and families. As such they are an important group whose opinions and beliefs about medication use in the Aboriginal population should be investigated. While there have been studies on the issues of prescribing in Aboriginal communities and access to medications, limited investigation into the use of prescribed medicines in Aboriginal communities and the role of the pharmacist in that process, has taken place. Therefore, this research aimed to identify the type of and reasons for inappropriate use of prescribed medications within Aboriginal communities serviced by the Mid Western Area Health Service (since incorporated into the Greater West Area Health Service) as perceived by the Aboriginal health workers in the area, and to explore strategies in conjunction with those Aboriginal health workers to address identified issues.

Methods: Qualitative, in-depth interviews were held with 11 Aboriginal health workers employed in Community Health Centres and hospitals in the Mid Western Area Health service of NSW. The interviews were audiotaped and transcribed verbatim. The transcripts were content analysed for emerging themes. The interviews explored the beliefs, perceptions and experiences of the Aboriginal health workers regarding prescribed medication use, the role of the pharmacist, and identification of future strategies to improve medication use in local Aboriginal communities.

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Results: The Aboriginal health workers reported a general lack of access to medications and frequent inappropriate use of medications due to limited understanding, literacy and information all of which lead to non-compliance with instructions. Medication sharing was common in their communities. They reported that many Aboriginal people were uncomfortable seeking medicines advice, and the consumer medicine information provided was often difficult to understand, culturally inappropriate and unlikely to be utilised. Strategies suggested to improve pharmacist services and access to the services were a more 'Aboriginal friendly' environment, relationship development between pharmacists and Aboriginal health workers, cultural awareness programs for pharmacists and their staff, provision of disease state management services and medicine education programs by pharmacists for Aboriginal health workers.

Conclusion: Medication misunderstandings and non-compliance within the Aboriginal community frequently occur. Suggestions to improve access, understanding and compliance, along with the education and training of Aboriginal health workers may provide tools for self-determination. Pharmacists may be well positioned to provide Aboriginal health workers with medicines information and patient education skills, and encourage the effective use of medicines within the Aboriginal community.

Key words: Aboriginal health, Aboriginal health worker, compliance, culturally appropriate, medicines information, pharmacists.

Introduction

The state of Aboriginal health is well documented, and remains 'appalling', with Aboriginal people suffering worse health outcomes than any other sub-population in Australia[1,2]. Aboriginal mortality rates are between two and four times that of non-Aboriginal people, and life expectancy is approximately 20 years less[3]. The prevalence of chronic disease states such as cardiovascular disease, respiratory illnesses, diabetes and renal failure account for over 50% of Aboriginal deaths[3]. The gap in mortality associated with these chronic disease states is widening between Aboriginal and non-Aboriginal populations[3,4].

Most chronic disease states require pharmacological intervention to improve health outcomes and quality of life. Aboriginal people currently have poor access to medicines with problems of accessibility ranging from geographical and educational disadvantage to alternative health beliefs[1,5,6]. A report by the Australian Government found the per capita expenditure of Pharmaceutical Benefits Scheme (PBS) on the Aboriginal population to be less than one-third of every dollar spent per person on the rest of the population[7].

The Mid Western Area Health Service (MWAHS) is located in central western New South Wales (NSW) and covers an area of approximately 60 000 km^2. Aboriginal people comprise 3.2% of the total population of this area, almost double the proportion of Aboriginal people in the total population of NSW[8]. Addressing the poor state of Aboriginal health has been identified as a high priority, and the MWAHS is committed to the promotion of partnerships between Aboriginal Health Workers (AHWs), health service providers and the Aboriginal community to develop healthcare services that are accessible, culturally appropriate and meet the needs of the community[8].

Anecdotal evidence provided by AHWs within the MWAHS has suggested problems associated with the use of prescribed medications within the Aboriginal community. AHWs form a core component of the Aboriginal health service sector. Their role is multi-faceted and includes acting as primary healthcare practitioners, liaison and cultural brokering officers, youth workers and substance misuse counsellors[5,9]. They have an in-depth knowledge of the community and its healthcare provision, as well as a familiarity with clinic patients and families[5]. As such they are an important group whose opinions and beliefs about medication use in the Aboriginal population should be investigated.

Emerson et al.[1] found that pharmacists may be an invaluable source of information and education to AHWs, and the Aboriginal population. There have been studies on the issues of prescribing in Aboriginal communities[6], but limited investigation into the use of prescribed medicines in Aboriginal communities, and the role of the pharmacist. Therefore, this research project aimed to identify the type and reasons for the inappropriate use of prescribed medications within Aboriginal communities serviced by the MWAHSand, to explore strategies in conjunction with Aboriginal Health Workers to address identified issues.

Methods

The project received approval from both Human Research Ethics Committees of the University of Sydney and the MWAHS before commencing. The design of the study was exploratory, because little data exist in this area. A qualitative research method was selected, and in-depth interviews were conducted in order to explore concepts and processes regarding the subject of prescribed medicine use, the factors that influence its use and strategies that could be employed to improve use.

The sampling frame chosen for the study was AHWs in the MWAHS, and contained a cross-section of AHWs. Sampling was done through the method of snowballing from an initial list of AHWs in the MWAHS. In order to participate in the study, participants had to be over 18 years of age, did not need a translator, and had to be an AHW employed or non-AHW involved in Aboriginal health programs in the MWAHS. The MWAHS was chosen because informal links between AHWs and the University of Sydney (Orange Campus) had already been established.

Letters of invitation were sent to 20 AHWs asking them to participate in the study. The letter contained information regarding the study objectives, and a consent form. A follow-up telephone call was conducted and suitable times arranged to meet the AHWs at the health service or community centres where they normally worked. No financial reimbursement was offered to the participants.

Interviews (n = 11) were conducted using a semi-structured questionnaire consisting of broad themed, open-ended questions to address the study objectives (Fig 1). The themes included issues that the literature suggested might influence or affect the use of medications by the Aboriginal community[6,10]. Interviews were approximately 1 hour in duration. All interviews were tape recorded with the consent of participants, transcribed verbatim and thematically content analysed. The responses were coded into categories, which were subsequently assessed for themes or patterns (Fig 2). The sub-themes were not specified in advance but were obtained from the in-depth interviews.

1. Access to services/medications
2. Medication taking/compliance
3. Medicines information
4. Cultural appropriateness
5. Pharmacist services
6. Future strategies & education

Figure 1: Topic areas for semi-structured questioning.

Results

Demographic characteristics

Ten of the 11 participants were of Aboriginal descent and six were female. The AHWs worked in the areas of sexual health, mental health, otitis media and women's health, or were liaison officers, education officers, or coordinators of Aboriginal health. Most were located in mainstream community health centres/facilities or hospitals.

Themes and sub-themes identified

A number of themes and sub-themes were identified (Fig 2).

Theme 1: Access to services/medications: 1. Finances* 2. Transport* 3. Embarrassed/uncomfortable* 4. Inadequate or inappropriate services* 5. Fear* 6. Elderly/isolated 7. Transience 8. Awareness of services **Theme 2: Medication taking:** 1. Understanding* 2. Sharing of medications* 3. Counselling & language used* 4. Literacy* 5. Embarrassed/uncomfortable seeking advice* 6. Beliefs* 7. Forgetting or ceasing medications* 8. Labelling 9. Side effects 10. Storage 11. Priorities 12. Lack of support 13. Generic substitution 14. Multiple medications & interactions 15. Cultural 16. Effectiveness 17. Transience 18. Do not fill prescriptions	**Theme 3: Medicine information:** 1. Culturally appropriate* 2. Too difficult/literacy level too high* 3. Too long* 4. Suggestions for improvements* **Theme 4: Pharmacists services & cultural appropriateness:** 1. Access* 2. Cultural appropriateness* 3. Pharmacist perceptions* 4. Links with AHW* 5. Counselling* 6. Communication skills* 7. Written information* 8. Labelling of medications 9. Medication reviews **Theme 5: Future strategies:** 1. Cultural awareness program for pharmacists* 2. AHW education & community programs* 3. Improvements to pharmacy & services 4. Collaboration/formation of links Between AHW and pharmacists* 5. Aboriginal employment or AHW in pharmacy* 6. Pharmacist Involvement in AMS or health service

Figure 2: Themes and sub-themes from in-depth interviews. *Most commonly identified sub-themes. AHW, Aboriginal health worker. AMS, Aboriginal medical service

Access to services/medications: Most of the participants agreed that lack of access to medically related services and medications was an issue. Financial difficulties and lack of access to 'bulk billing' (no-cost consultation) and doctor services was more likely in rural areas than in regional centres. Many participants suggested that the cost of medicines limited access, because many Aboriginal people were on a government benefit, and were 'more concerned with their day-to-day living than forking out money for medications' [Respondent (R) 4]. However, a minority believed that medications were not always considered a priority.

> *... because medication isn't a priority out of their money for the week, it is not, if they have got other things that I want to spend the money on, medication won't be the first thing they will go on, even if it is a life medication, they will just not worry about it.* [R11]

Transport was more difficult in rural towns than in regional centres, and reasons cited were the infrequency of public transport, lack of private vehicle ownership and the distance from facilities.

> *In some communities, transport is a major problem…many families haven't got cars and are 10 km away from their local chemist. It might as well be on [the planet] Mars, so in some communities, transport is the issue.* [R1]

AHWs located in regional centres did not report lack of access to, or inadequate medical services. Doctor services within rural towns were limited, often to one day per week, or 2-3 days per month for specialist services. All major rural towns had at least one pharmacy, which was open at least 5.5 days per week. The majority of respondents stated that people within the Aboriginal community reported feeling uncomfortable or embarrassed when accessing many mainstream services. However, those AHWs located in smaller towns, with a lack of doctors and specialist services, reported that many people felt comfortable accessing the pharmacy for information and advice. Many respondents cited fear as a barrier to accessing services, mainly by the older generation and particularly accessing mainstream services, due to negative connotations, historical factors and lack of education about disease state management and treatment.

> *You've got to understand the history of how things can happen and the connection with those services, hospitals, we've seen this as a place of death for Aboriginal people because that's the only time they walk in there, when they were nearly dying, and a place where children were removed ... So bad things happened in that setting.... I think pharmacy's just an extension of that. I think it's getting better, certainly work being done in the area but it's still a long way to go.* [R10]

Other themes mentioned by a minority of respondents were difficulty with access due to the person being elderly or living in an isolated area, transience, and a lack of awareness of the services available.

Medication taking and compliance: Respondents were asked about issues associated with the general taking of prescribed medications, and specifically with compliance. All respondents stated that Aboriginal people had difficulty understanding what to take, when to take it and how often, and this resulted in them not adhering to the prescribed dosage regimen. Standard directions such as 'take one tablet twice a day' were misconstrued by many, often taken as two tablets together, or at too short an interval or taken for a couple of days only. Additionally there were problems in knowing what to do if a dose was missed.

> *They don't understand, basically how to take it, when it should be taken, whether it should be taken with or without food, at what interval. They really are unclear of what's going to happen with the medication that they've been given, and what happens, is they don't… continue, they don't take the full dose, they don't take it all.* [R9]

The use of language that was not easily understood by the Aboriginal community presented communication problems. Many felt the language used was too complex, too medically oriented or not explained in sufficiently simple terms. Many of the respondents felt that Aboriginal people were uncomfortable, embarrassed or even ashamed of asking a pharmacist for clarification or advice, and suggested that Aboriginal people would just nod and say that they understood in order to leave the pharmacy quickly.

> *If they don't understand, they just walk out. They're a bit frightened or ashamed if they don't understand…* [R7]

Literacy, and the ability to interpret labelling and written information provided was a substantial barrier, and over half of the respondents mentioned this as a significant issue affecting a person's ability to take their medication correctly. Other minor issues mentioned by respondents included: problems with labelling (the writing was too small or instructions not specific enough); problems with storage; and not believing that the medication was being effective. In addition, the use of generic substitution often caused

confusion as many associated a tablet with a particular colour or packaging.

The general sharing of medications among other members of the Aboriginal community emerged as a major sub-theme. Some of the respondents believed that the practice was quite common, others felt it went on but had no personal experience, and only one respondent did not perceive it as an issue. Sharing had a two pronged effect: the person prescribed the medication had less available to take, and the person provided with the medication may not seek medical assistance. Often there was lack of support from the family to continue taking the medication, or a belief that the medication taking was not cultural.

> *It's* [medication] *not cultural to start with; it's not how they would have treated it, had they done back 200 years ago. They wouldn't have popped a pill for feeling sad*. [R3]

Several other factors were cited as having an impact on medication taking, including forgetting, polypharmacy and complex medication regimens. The cost of medications and financial issues mentioned above, led many not to fill, or to delay collecting prescriptions until 'pay day'. Many ceased medications because they felt better or did not understand the need to continue or complete the course of their medication. Experiencing side-effects led to medication non-adherence; instead of seeking advice, these patients just ceased the medication.

> *If you've got something wrong with you and you've got a packet of 12 tablets that you have to take and you're feeling better after one and you don't like taking tablets anyway and you don't go to the chemist and find out what this medication is doing for you, you're going to take one, feel better and say, I don't need to take the rest*. [R1]

Medicines information: Respondents were asked whether the consumer medicine information (CMI) issued with medications was suitable for the needs of the Aboriginal population and whether the CMI can be improved. Most participants felt that the information was not culturally appropriate for Aboriginal people and that many would be unlikely to utilise CMI in their current format.

> *Aboriginal people would never pick those up, they need to be more friendly…for Aboriginal people, maybe they might not look at them, maybe designing some that are more Aboriginal friendly.* [R11]

Although believing the CMI to be worthwhile, the majority of respondents found them too difficult to read, too confusing, too long and above the literacy level of most Aboriginal users. The print was also too small. Suggestions for improvement included formatting changes, use of pictograms and increased readability. However, there were conflicting opinions on Aboriginal-specific CMI. Some respondents felt that Aboriginal people would feel segregated, yet others felt this would make Aboriginal people more likely to utilise the CMI.

> *I don't like the whole segregated thing, you know, you're black so you get this bit of paper with Aboriginal art on it, and you're white and you get a very nice educated version of the same thing….I think a nice simplified version of the medication that everyone would use.* [R2]

> *If they do see that its culturally appropriate or that people are trying to make it more appropriate for Aboriginal people, they'll tend to look at it and read and use it, so it does increase the utilisation.* [R4]

Pharmacist services and cultural appropriateness: Participants were asked to respond to questions regarding the cultural appropriateness of pharmacy services, counselling provided by pharmacists, perceptions of pharmacy services and pharmacists, and access to these services. The consensus of most participants of 'culturally appropriate' was that it was about treating the person as an individual, with respect, and with an understanding of their

culture and the concerns they may have. It was 'what is appropriate to make that person feel more comfortable' [R3]. The majority believed it was not about 'flags and banners' [R1]. One respondent believed that focussing on being politically correct about cultural appropriateness led to missing the point of what your service is actually providing.

> *Culture, it's a broad word, we all have our own, it's not an Aboriginal phenomenon. We all have our own and it needs to be appreciated at an individual level.* [R10]

> *I think we get caught up in what is culturally appropriate and miss the whole focus of whether the client is understanding what they are being told about that prescription*. [R1]

Pharmacists were generally perceived as trusted within the community, and were often the first or only person seen when seeking medical advice, often seeing patients more regularly than doctors. Reasons cited for using pharmacists in preference to doctors, included lack of doctors, 'finances' or ease of access (because people could just walk in off the street without an appointment), knowledge and understanding of the local community, and familiarity with many generations of a family. A minority of AHWs found the pharmacists unapproachable or rude.

> *There is a bit more communication and trust and rapport built up with the chemist. The doctor is usually five, ten, fifteen minutes and out, gone, next and 'ching-ching' of the Medicare card.* [R9]

Future strategies

Although many programs have been run successfully by MWAHS there were currently no medication-related educational programs, except for those relating to drug and alcohol use (Fig 3). Respondents were therefore asked to suggest such programs and other strategies that they felt would support or benefit them as AHWs, or the Aboriginal community (Fig 4). On questioning about the delivery of educational programs for AHWs, the majority of respondents felt that seminars would be the most beneficial and convenient method. A couple suggested that a course leading to accreditation, or a certificate, be provided. One respondent thought that a question-and-answer format might also be helpful. Some suggested the use of high profile Aboriginal identities to promote programs.

Many suggested ways in which pharmacists could improve access to pharmacies and medications (Fig 5). It is important to note that in suggesting the utilisation of Aboriginal pharmacy staff, that respondents did not want this to be a tokenistic position, but rather one that was filled by a competent, trained person. The vast majority of respondents suggested the utilisation of AHWs in pharmacies to coordinate health education programs, improve access, and educate the Aboriginal community about the role of the pharmacist. Some respondents suggested that having the service available on 'pay day' might improve attendance.

> *... you just can't employ Aboriginal people just for the sake of them being Aboriginal. They have to have the capacity to do the work that you want them to do.* [R1]

Many respondents felt that the collaboration between pharmacists and AHWs was very important in order to provide a more holistic approach to Aboriginal health and to influence change. Respondents recommended that pharmacists complete a cultural-awareness program to provide them with a fuller understanding of the health issues, culture and history.

> *What relationship do pharmacists at a local level have with their Aboriginal health workers and it's probably an area that could be explored…it's an area that I know not much work's gone into. I mean, it's about, we've had consultation with the GP in the area, we're over-consulted really in terms of GPs, however it's never been done on the level it's probably needed.* [R10]

1.	Diabetes monitoring - limited
2.	Aboriginal maternal and infant health services
3.	Baby mobile
4.	Otitis media
5.	Sexual health initiatives – HIV, hepatitis, safe sex
6.	Mental health support – men's group
7.	Pitstop - men's health
8.	Healthy lifestyle
9.	Women's programs – Pap smears, mammograms, contraception, active program
10.	Drug and alcohol
11.	Drop-in clinics
12.	Immunisation programs

Figure 3: Current Aboriginal health programs in the Mid Western Area Health Service.

Aboriginal health worker education:	**Community Programs:**
1. Awareness of pharmacist roles 2. Medication information 3. Disease state management 4. Drug interactions 5. Pharmacist information provided (sexual health)	1. Disease state management eg. asthma, diabetes, cardiovascular disease, renal disease, mental health 2. Sharing of medications awareness 3. Drug interactions 4. Early prevention/intervention of chronic diseases, eg diabetes, cardiovascular disease 5. Pharmacist services

Figure 4: Suggested future educational programs.

Pharmacist Services:	**Environment:**
1. Counselling - privacy in area away from main counter - availability, i.e. stepping out from behind counter 2. Provision of written information 3. Simple written instructions – separate to that of labelling 4. Labelling – clear and specific 5. Disease state monitoring – blood pressure, blood glucose 6. Webster Paks® or dose aids 7. Deliveries 8. Medication reviews	1. Friendly, less impersonal 2. Utilisation of Aboriginal artwork on walls 3. Availability of Aboriginal pamphlets or posters 4. Aboriginal worker – pharmacy assistant or Aboriginal health worker providing assistance/support 5. Pharmacist assistance/support in Aboriginal medical service

Figure 5: Strategies to improve pharmacy services and access to medications.

Several respondents felt that the content and delivery of educational programs and the implementation of any new strategies required consultation and partnership with the AHWs in order to be acceptable to the Aboriginal community.

Discussion

The qualitative nature of this study limits its ability to be generalised to a wider population, because the sample size was small and limited to one area. Nevertheless, the study revealed several issues pertaining to the reasons, types and frequency of problems associated with prescribed medication use within the Aboriginal communities known to the AHWs.

The issues associated with access, such as transport, finances, inadequate services and discomfort at utilising mainstream services are consistent with the literature[2,8,5-7]. Accessibility to medications may be improved with the introduction of Section 100 Dispensing[11], but this was unable to be explored because it was not available in the area where the study AHWs were located. It may be something that could be examined in the future.

The aspects surrounding medication taking were broad, ranging from understanding through to a lack of cultural context. Aboriginal people may benefit from specific labelling instructions over standard directions, and factors such as intervals between doses, requirements to take medicines with food and missed doses, may need to be stated more clearly and in simple language. The use of pictograms indicating, for example, morning and night, could be explored for those with literacy issues. Pictograms on labels may increase comprehension but may be culturally sensitive and subject to interpretation. If pictograms are to be introduced they need to be tested on the Aboriginal community in which they will be utilised, and used in combination with written instructions and/or counselling[12]. The provision of generic medication or brand substitution may need to be avoided, or careful explanations provided if substitution is necessary[6].

Western health priorities focussing on disease management through the use of medications may not mirror the health priorities of Aboriginal people. Thus, the lack of priority designated to purchasing medications, even for life-threatening conditions, could be explained by differing health values, and this is an area for further exploration. Sharing medications may be a cultural phenomenon, because Aboriginal beliefs stress social cohesion, cooperation and community[13], and this may need to be addressed by healthcare professionals (HCPs) when providing counselling and medications.

Medication compliance is a complex and multifactorial problem, and an important component of treatment failure[14]. The reports of non-compliance, defined as the failure to take medications, to take medications not prescribed or take medications incorrectly, were numerous. The confusion of multiple medication regimens, lack of counselling by HCPs, sharing of medication and cost, contributed to non-compliance within the Aboriginal community. AHWs stated that many ceased medications due to side-effects, a lack of understanding of continuity of dosing, and others just simply 'forgot', all common reasons for non-compliance[15]. The failure of many Aboriginal people to refill or redeem a prescription may also be attributed to cost considerations[14]. Beliefs, both cultural[16], 'white fellah medicine', and spiritual, need to be taken into account when considering non-compliance. Aboriginal people consider their health to be physical, social, emotional and cultural[8]. It is imperative that HCPs increase their understanding of the different cultural needs of their patients[17] and provide adequate counselling, to ensure a thorough understanding of the reasons for, and the nature of the treatment, but also actively include the patient in the interaction[17]. Suggestions for the provision of simple written instructions stating what the medications is for and how to take it, in addition to labelling instructions and counselling, could be an effective compliance aid[15].

In order to use medicines effectively and safely, patients need access to medicines information[12]. Research into medicines information for Aboriginal people is non-existent, and is limited in ethnic and minority groups[12]. Varied levels of literacy may be a problem among the Aboriginal community[18]. A certain degree of literacy is required to interpret and understand written information, and the provision of a CMI in the current format may not be useful. It was suggested by AHWs that a simple-format, simple-language CMI be introduced, not only for the Aboriginal community, but also for many within the community with poor literacy. Research suggests that this may be effective, if the level of literacy matches the literacy capacity of the user[12,19]. The belief that the written information provided in the form of a CMI, was too long, too technical and the writing too small, was consistent with other literature[10]. The use of larger fonts, colour, less jargon and pictures to improve comprehension and readability, may increase utilisation[12]. The suggestion that Aboriginal-specific CMI be developed needs further investigation, due to contradictory respondent views.

The term 'culturally appropriate' is commonly articulated, however a precise definition is elusive in the literature. 'Treating with respect', the 'understanding of culture and history', seeing one as an 'individual', doing 'what is appropriate to make someone feel comfortable', and extending courtesy were all common definitions provided by the AHWs, befitting to all cultures. Taken in the context of the HCP or, more particularly, the pharmacy setting, may involve presenting information in a way that these communities can understand, and also assessing each patient or client on their individual merits. Communication styles need to be less direct, and more focused on developing a rapport, endeavouring to elict a broader picture of the person's situation and beliefs.

The pharmacy environment was found to be impersonal, confusing and uncomfortable by many. The inexpensive and simple strategy of displaying Aboriginal paintings, and an availability of pamphlets to make the environment itself more psychologically comfortable, has often been utilised in GP practices[20]. The recruitment, employment and training of Aboriginal pharmacy staff was recommended by all participants, and may be incorporated as part of a broader approach to 'Aboriginal friendly' practices. The funding and training programs necessary to sustain this need to be explored. A cultural awareness program undertaken by pharmacists and pharmacy staff was seen as an important factor in enhancing pharmacist services, and has previously been utilised by GPs[20]. In a recent review, Beach et al[21] showed that cultural competence training for HCPs improves their attitudes and skills, as well as impacting on patient satisfaction. Due to time limitations and locum difficulties in rural areas, strategies such as a written package or a CPE accreditation may be need to be examined.

Participating AHWs welcomed the opportunity for collaboration between themselves and pharmacists. The prospects for such interactions have not been explored previously, although GP and AHW collaboration has been documented, and encouraged[20]. It seems a natural follow-on to incorporate pharmacists into the GP-AHW relationship to provide expertise and information to complete the picture regarding a patient's health. The most appropriate forum in which to explore this may be through Aboriginal Medical Services.

The National Aboriginal and Torres Strait Islander Health Strategy in its commitment to self-determination, emphasises health education and training[22]. The logistics and content for the procurement of educational training to AHWs may need exploring by pharmacy bodies, in collaboration with AHWs and the MWAHS. The delivery method suggested (either by seminar or an accredited course) may be something that tertiary education institutions and the Pharmaceutical Society of Australia need to evaluate.

Pharmacists are considered one of the three most important health service providers in rural areas[23], and provide an invaluable service in diabetes[24], cholesterol[25], and asthma[26] prevention and/or management. A study by Emerson et al[1] found pharmacist services to be effective and extremely beneficial in promoting the quality use of medicines within

Aboriginal communities. Pharmacists roles have broadened to include counselling on specific risk-management information, patient education and screening for risk factors for chronic diseases[27]. The provision of education programs to the general community, particularly disease-state management and prevention may need to be considered to reduce the burden on GP resources and finances within rural communities.

In order for such programs to be successful and sustainable, the content and delivery requires input from Aboriginal communities. Aboriginal culture is not homogenous within the MWAHS due to forced relocation, and each group may have their own set of values, beliefs and cultural considerations. Education strategies that may be developed for one particular group may not be applicable or relevant to another, although some of the content may be adapted for or transferable to another group. Existing educational messages, as suggested by one of the respondents, may need to be substituted with concepts and contexts, which identify and address Aboriginal culture, and beliefs.

Conclusion

The health of Australia's Aboriginal population is impacted on by a complex series of factors. Poor health outcomes are contributed to by poverty, disease, a lack of input from the Aboriginal communities themselves, and lack of empowerment and self-determination. The health status of Aboriginal and Torres Strait Islander people can only be improved by a collaborative, rather than paternalistic approach, with a commitment to recognising these people's holistic view of health, and providing services and education that incorporate this view. The interviews in this study provided insight into one aspect of Aboriginal health. They highlighted the reasons for and types of medication misunderstandings, and provided a series of AHW suggestions for strategies to address such misunderstandings. AHWs with appropriate and adequate education and training, can provide their communities with the tools to determine their own state of health. With appropriate funding, pharmacists are well placed to fill the gap that exists in AHW and patient education, and improve the quality of use of medicines within the Aboriginal community.

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