

SCHOOL OF
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THE UNIVERSITY
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Over the Counter (OTC) analgesic use by Aboriginal people in Adelaide

Report
March 2011



“If the doctor doesn’t tell you we don’t ask — we trust him or her or feel too shy (shame) to ask.”

Doctors, nurses and Aboriginal Health Workers should make sure their patients/clients understand how to select and take their medication.

.....

“TV ads influence you in what you take — they have a nice young man or woman and I think ... ‘they’re healthy and I will want to be like them’.”

Health care professionals need to engage with Elders and Aboriginal Health Workers.

.....

“I will ask her because she is a health worker — she will have the knowledge and answers.”

Aboriginal Health Worker TAFE training should include safe medication use.

.....

“The Elder is still here and they have the wisdom and experience of living and that is why we believe them.”

Elders and Aboriginal Health Workers are two important groups in the Aboriginal Community who can influence positive change in the way OTC analgesics are used.

.....

“We share — if it’s good for her I take it.”

Eye-catching, easy to read, paper-based notices with pictures about how to select and use OTC analgesics and other medicines are urgently required.

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This report was prepared by Tamara Agnew

Table of Contents

Research Team -----	4
Executive Summary-----	5
Background	
Findings	
Conclusion	
Theoretical Context-----	7
Introduction	
Background	
The Literature-----	8
The Study-----	12
Aims	
Methodology	
Reciprocation	
The Results-----	14
Demographics	
Qualitative Themes	
Discussion	
Conclusion	
The Recommendations-----	22
References-----	24

RESEARCH TEAM

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We particularly want to thank the Aboriginal people who gave their time and shared their knowledge, experience and recommendations for change.

Key to commonly used abbreviations:

OTC	<i>Over-the-Counter</i>
NSAIDs	<i>Non-steroidal anti-inflammatory drugs</i>
CI	<i>Chief Investigator</i>
QUM	<i>Quality use of Medicines</i>
CMI	<i>Consumer Medicines Information</i>
CALD	<i>Culturally and Linguistically Diverse</i>
AHW(s)	<i>Aboriginal Health Worker(s)</i>

Key Words:

Aboriginal; Aboriginal and Torres Strait Islander; Indigenous; over-the-counter analgesics; non-prescribed analgesics; toxicity; overdose; side effects; contraindications; knowledge; safety.

Note:

The participants in this research preferred to be called 'Aboriginal' when referring to themselves and their communities. We have therefore used this term unless citing information from other documents.

EXECUTIVE SUMMARY

BACKGROUND

It is well documented that despite some health gains for Aboriginal people in recent years, their health status remains significantly poorer compared with the general population, and this is a serious concern¹. Given their significantly higher prevalence of chronic disease, commonly involving multiple co-existing illnesses, and the important role medication plays in relieving and managing these conditions, unsafe and ineffective over-the-counter (OTC) medication use such as analgesics pose significant and additional threats to people's health, safety and overall quality of life. However to date there is scant information or direction regarding this important issue.

In response to the serious gaps in understanding regarding the above this pilot study explored OTC analgesic medicines use amongst Aboriginal people in metropolitan Adelaide. The OTC analgesics considered were paracetamol, aspirin, non-steroidal anti-inflammatory (NSAIDs) medicines and combinations of these with other substances such as codeine. The background issues prompting the study, its application, findings and emerging recommendations are presented.

FINDINGS

The findings of the present study, using Participatory Action Research (PAR), revealed critical issues concerning the safe selection and use of OTC analgesics by Aboriginal people in urban Adelaide. In particular, the results suggest that Aboriginal people may be facing serious health risks as a result of their very limited knowledge about the safe use of OTC (and other) medications. This is largely due to extremely poor access to culturally and linguistically appropriate information, education, advice and support from many doctors, pharmacists and health professionals including Aboriginal health workers. This is particularly concerning given the high levels of chronic illness and the complex social needs within this group.

There remains poor appreciation about this important issue for Aboriginal people by relevant policy makers, health service providers, medical, pharmacy, nursing and Aboriginal health worker personnel. There is an urgent need for Aboriginal people to be better supported to acquire the skills and knowledge to manage their OTC and prescribed medicines more safely, and to subsequently improve their overall health and well-being.

CONCLUSION

Aboriginal and Torres Strait Islander people have the worst health status in Australia, with life expectancy about 17 years below the general population [3]. Significant investment and efforts have been made to improve Aboriginal and Torres Strait Islander peoples' health through better access to health care and prescribed medications. Self-management of minor complaints is typically facilitated by people accessing OTC analgesics and other medicines from pharmacies, supermarkets, delicatessens, petrol stations and health food outlets. Easily accessible, culturally and linguistically appropriate education and support for safe use of OTC analgesics for Aboriginal and Torres Strait Islander people has not been given the high priority required.

It is clearly very important to promote safer use of OTC analgesics and other medicines within the Aboriginal community as highlighted by the findings of this study. Aboriginal people participating in this study have clearly indicated that they and many other Aboriginal people require and expect to be provided culturally appropriate and accessible medication information, guidance and support by doctors, pharmacists and Aboriginal health workers in particular. Their issues and concerns have been expressed in their recommendations for change.

THEORETICAL CONTEXT

INTRODUCTION

This paper presents a pilot study that used Participatory Action Research (PAR) methodology to explore over-the-counter (OTC) analgesic medicines use amongst Aboriginal people in metropolitan Adelaide. The OTC analgesics considered were paracetamol, aspirin, non-steroidal anti-inflammatory (NSAIDs) medicines and combinations of these with other substances such as codeine. The background issues prompting the study, its application, findings and emerging recommendations are discussed.

BACKGROUND

Despite several health gains for Indigenous Australians over the past few decades including reductions in child mortality and communicable diseases', the significantly poorer health status of Indigenous Australians is well-documented and still remains a significant cause for concern [1, 2, 3]. Research reveals that Indigenous Australians not only suffer the poorest health outcomes of any other sub-population within Australia, but mortality rates continue to remain 2 to 4 four times higher, and life expectancy approximately 17 years less than non-Indigenous Australians [3]. Among the potential reasons for the growing gap in mortality rates is the significantly higher prevalence of chronic illness among Indigenous populations [3, 4, 5]. Recent statistics indicate that approximately 97% of Indigenous Australians over the age of 55 years old are living with at least one chronic health condition, with asthma, diabetes and cardiovascular disease being the most common [4]. Furthermore, research reveals that chronic health conditions including cardiovascular disease, respiratory health problems (e.g., asthma, renal failure and diabetes) account for approximately 50% of Indigenous Australian deaths [5]. Broadly, the factors contributing to Indigenous Australian's significantly poorer health status have been described as 'complex' and 'multi-factorial', including a range of historic, socio-economic, cultural and access issues [6].

It is widely acknowledged that the effective management of chronic illness often requires both lifestyle changes (i.e., diet, exercise) as well as pharmacological intervention [7]. Due to higher rates of multiple, complex, chronic diseases among Indigenous Australians, however, pharmacological intervention often does play a significant role in both long-term disease management, as well as short-term symptom management [7]. The Quality Use of Medicines (QUM) is one of the four key elements of Australia's National Medicines Policy [8], and encompasses both appropriate medication selection for individual patients' conditions (i.e., in terms of risks, benefits, personal and community costs), as well as the promotion of safe and effective medication use [9].

THE LITERATURE

While few studies have specifically explored the use of both prescription and over-the-counter medications by Indigenous populations, research cites both poor access to medication, as well as its inappropriate use, as potential contributors to poor management of chronic health conditions, and more broadly poorer health outcomes [6,7, 10]. Semi-structured interviews with a sample of 27 NSW community pharmacists employed in areas with Indigenous Australian residents, revealed that compared to non-Indigenous customers, Indigenous customers were more likely to suffer from chronic illness (e.g., diabetes and cardiovascular disease), and less likely to observe guidelines for effective management, in particular prescribed medication use [6]. When asked to identify possible reasons for non-compliance, the majority of pharmacists cited a lack of financial resources, transport difficulties, issues relating to privacy and confidentiality as well as a lower concern for personal health [6]. Communication difficulties were also cited as a potential contributor to poor medication compliance; specifically, a lack of understanding regarding the need to take medications, as well as lower literacy levels. Pharmacists specifically expressed concern regarding the current format of consumer medicines information (CMI) provided in pharmacies, describing these as potentially too 'complex', 'confusing' and 'intimidating' for patients with lower literacy levels, as well as those from Culturally and Linguistically Diverse (CALD) backgrounds [6]. One pharmacist reported:

'For some people just to give them five pages is more than they can realistically read and comprehend. It goes beyond, it's not totally an Aboriginal problem anyway. It's wider than that. But yes, I can see that people would find that daunting and don't want to read it' (p. 6).

Consistent with these findings, in-depth interviews with 11 Aboriginal Health Workers (AHW) employed in Community Health Centres and hospitals in NSW identified literacy, and the ability to interpret labeling and written information as a significant barrier to appropriate medication use among Indigenous Australian patients [7]. The majority of those interviewed described the CMI issued with medications as culturally inappropriate, 'too complex and medically oriented' for Aboriginal patients, and consequently unlikely to be utilized in its current form [7]. AHWs identified this lack of accessible information as particularly concerning given the tendency for Indigenous patients to feel uncomfortable, embarrassed or even ashamed to seek additional clarification or advice from pharmacists. One AHW reported

'If they don't understand, they just walk out. They're a bit too frightened or ashamed if they don't understand...' (p. 5).

Consequently, among the recommendations provided by AHWs with regards to promoting appropriate medication use among Indigenous patients was the simplification of CMI.

Changes to formatting (e.g., increased text size), the use of pictograms (e.g., visual representations of morning and night), as well as specific labeling instructions as opposed to 'standard directions' were all perceived by AHWs as potentially effective strategies to increase consumer knowledge and promote safe and effective medication

use [7]. Additional barriers to medication compliance reported by AHWS included early cessation of medication due to its side-effects, or 'feeling better', cost and transport related issues, conflicting cultural and spiritual health-related beliefs, and simply 'forgetting' [7]. Recommendations stemming from the study focused on improving medication access, understanding and compliance among Indigenous patients, as well as education and training for Aboriginal Health Workers [7]. In addition, the role of pharmacists in providing AHW with accessible and culturally appropriate medicines information and guidance regarding patient education was also considered [7].

Consistent with the qualitative studies described above, a recent study exploring the use of medications among Indigenous Australians with mental illness in South Australia also identified cost, undesirable side effects, medication sharing, and difficulties comprehending and following administration directions, as barriers to the quality use of medications [11]. Interviews with individuals providing services to Aboriginal mental health patients frequently described themselves as inadequately trained to assist and educate patients with regards to safe and effective medication management, yet remained responsible for doing so [11].

Consistent with recommendations by other researchers [6,7], it was hypothesized that access to culturally appropriate and comprehensible medicine information, as well as training of service providers regarding addressing gaps in patients knowledge and skills, may address several of the QUM issues identified [11]. Consistent with the studies reviewed above, researchers exploring South Australian Aboriginal women's experiences of medication use also reported significant 'deficits' in both patients knowledge and skills in managing medication [12]. In addition to medication sharing and infrequent use of administration aids such as lockable dosette boxes, calendar blister packs or Webster packs, researchers found that patients often recognised medication by colour and shape, and tended to rely on memory for dosage and administration time [12]. One participant reported '*I usually take them if I don't forget*' (p.11). Overall, the researchers identified an urgent need for improved education and training, as well as increased support for all healthcare professionals working with older Aboriginal women [12].

Despite being relatively limited, the available literature on medication use among Indigenous Australians provides evidence for a number of barriers to its safe and effective use [6, 7, 10-12]. Among the common barriers identified through qualitative research include

- cost and transport related issues;
- conflicting cultural and spiritual beliefs; and
- communication difficulties (i.e., lower literacy levels) which often impede patients' ability to comprehend CMI and appropriately use medications [6, 7, 10-12].

Furthermore

- evidence of medication sharing;
- early medication cessation due to unpleasant side-effects or 'feeling better'; and
- a lack of culturally appropriate education and training for healthcare professionals involved with Indigenous patients

were also identified as factors impacting upon effective medication use [6, 7, 10-12].

Given the significantly higher occurrence of chronic health problems experienced by Indigenous people, and the important role medication plays in managing these conditions, unsafe and ineffective medication use poses a significant threat to individuals' personal health and overall quality of life. Of particular concern, however, is recent research indicating that barriers to healthcare access, as well as ineffective management of chronic illness associated with poor use of prescribed medications, may lead to patients self-managing their symptoms, in particular pain, through the use of OTC analgesics [11]. Data from the 1995 Australian National Health Survey revealed that pain relievers were the most common medications being used by 20% of males and 27% of females, with the highest proportion being within the 25-44 age range [13].

Over 90% of pain relief users reported using analgesics, with the majority taking paracetamol or aspirin-based medication [13]. The survey revealed that the majority of analgesic users (65%) were purchasing OTC medication without seeking advice from their GPs or other health professional [13]. Among the most commonly cited reasons for analgesic use included headaches (49% of people using analgesics), musculoskeletal system related diseases (e.g., arthritis and back problems) (14%), respiratory conditions including colds and flu (12%) and circulatory conditions (10%) [13].

In addition to the use listed above, the 2007 National Drug Strategy House-hold Survey found that over half a million Australians use pain killers for non-medical related purposes [14]. Specifically, analgesics were identified as the third most common category of substance use in Australia following cannabis and ecstasy [14]. Similar trends regarding the common use of over-the-counter analgesics for both medical and non-medical purposes have also been documented overseas (e.g., Scotland and the USA) [15, 16]. Non-prescription analgesics accounted for approximately one quarter of OTC medication sales in the UK in 2001 [17]. While the availability of OTC medication, in particular analgesics, allows patients to conveniently self-manage minor conditions (e.g., headaches, cold and flu symptoms) without medical consultation, a number of issues associated with their appropriate use have been raised. For example, research links inappropriate use of OTC analgesics to a number of adverse reactions in patients with cardiovascular disease, asthma, gastric ulcer, and others [18, 19]. Moreover, cases studies investigating OTC analgesic misuse reveal a link between the misuse of NSAIDs and serious health outcomes including anaemia, renal failure, gastrointestinal disease and severe hypokalaemia (low levels of potassium which can lead to weakness and heart defects) [20, 21].

Particularly concerning was a recent study exploring the use of non-prescription ibuprofen among 60 patients recruited through Northern Territory and South Australian pharmacies revealed that many patients were not only unaware of the dangers of using OTC analgesics in combination with other medications, but also rarely read labels/printed directions or sought medical advice from healthcare professionals regarding their use [22]. Results also revealed that patients taking medications likely to interact with ibuprofen were more likely to report regular use of ibuprofen (i.e., once a week) compared with patients not taking other medications [22]. Overall the findings of the study reinforce the need for increased awareness regarding the potential risks of over-the-counter analgesic use, as well as the important role of pharmacists and other

healthcare professions in promoting the safe and appropriate use of OTC medications through both education and monitoring [22].

While the safe and effective use of OTC analgesics presents a significant challenge for all Australians, it can be inferred from previously described barriers to quality medication use, that Indigenous Australians may face some unique challenges with regards to appropriate OTC medication use and management. Few studies, however, have specifically explored OTC analgesic use among Indigenous Australians, with the available literature being limited to relatively out-dated quantitative data. Fleming, Watson, McDonald and Alexander (1991) quantitatively explored drug use patterns among a sample of 1764 Aboriginal people (aged 15 years and over) living in the Northern Territory [23]. The results of their survey revealed that over three-quarters (76%) of participants had previously consumed analgesics, and expressed intent to do so in the future. Across all age groups, women were more likely to have consumed analgesics than men, and older men (82%) more likely to consume analgesics compared with younger men (15- 20 years old) (51%) [23].

Overall, the study revealed that approximately 1 in 5 of Aboriginal participants in this study consumed analgesics in a 'typical' week. In general, participants reported consuming one or two paracetamol tablets (once or twice a day) when sick [23]. In general, the researchers found no evidence for higher patterns of analgesic consumption among Indigenous Australians compared to non-indigenous Australians [23].

While these statistics reveal that the prevalence of analgesic use may not significantly differ across Indigenous and non-indigenous populations, they do not provide sufficient insight regarding factors related to their safe and appropriate use. This is of particular concern, given previously reported barriers to effective medication management (e.g., lower literacy levels, medication sharing, recognition of tablets by colour and shape etc), as well as the ease of availability of OTC analgesics. Given previously identified barriers to quality medication use [6, 7, 10-12], the present study aims to gain further insight regarding Indigenous Australian patients use of OTC analgesics.

Specifically, through the use of qualitative research methods, the present study aims to identify barriers to appropriate and effective use of OTC analgesics among Indigenous Australians, as well as provide suggestions as to how potential barriers may be addressed. Positive strategies employed by Indigenous Australian participants with regards to understanding and management of OTC analgesics will be drawn upon when considering potential approaches to promoting safe and effective over-the-counter analgesic use among Indigenous Australians.

THE STUDY

AIMS:

The aim of this study was to gain insight into the understanding, experiences, selection and use of OTC analgesic medications amongst Aboriginal people living in metropolitan Adelaide. In particular to learn about participants’:

- knowledge about and use of OTC analgesics
- reasons for using
- access to Over-the-Counter (OTC) pain killers known as analgesics
- access to quality information about safe OTC analgesic use

METHODOLOGY

Participatory Action Research (PAR) was selected as the most appropriate methodology for this qualitative research. This approach involves active participation of stakeholders, those whose lives are affected by the issue, in all phases of the research for the purpose of making positive changes [25] and is based on partnership between the researchers and those whose issues are being investigated. In this instance this involved working with Aboriginal researchers and community members to seek their knowledge and guidance regarding the topic.

RECIPROCATION

Reciprocation is a key ethical responsibility of researchers when working with Aboriginal peoples, and an important element of action research methodology. This was undertaken by providing quality information and education prior to all focus group/interview discussions.

We provided every participant and group leaders (staff) with an easy to read pictorial/text ‘handout’ information sheet which we had compiled. This contained information on OTC analgesic medicines and their safe selection and management. A brief education session focussing on the handout was then provided face to face by the Aboriginal Elder researcher and Chief Investigator. Participants were encouraged to interact, ask questions, and were offered additional education sessions later, either individually or in their groups, on request. In response to this offer arrangements were subsequently made for an experienced pharmacologist to provide safe medication education to one of the groups several weeks after their data were collected. All participants were assured they would receive an easy to read version of the study findings and recommendations on completion.

Participants were provided with light refreshments at their focus group or interview. Reimbursement of any transport costs to participants was offered, but not required.

Ethics

Ethics approval was given by the South Australian Aboriginal Health Research Ethics Committee; the Adelaide University Human Research Ethics Committee and Flinders University Social and Behavioural Research Ethics Committee.

Participants

All participants were Aboriginal people aged 18 years and over who were able to give their informed consent to participate.

Inclusion criteria

Aboriginal people aged 18 years and over who were living in metropolitan Adelaide at the time of the study.

Exclusion criteria

Aboriginal people under 18 years of age; not living in Adelaide at time of the study; acutely unwell or otherwise unable to be involved due to personal incapacity or other issues.

Sampling

Purposive sampling using snow-ball techniques was conducted by the Aboriginal Elder researcher and CI.

Interview guide

This contained key themes to prompt participants' ideas, knowledge and experience related to use of OTC analgesics for the relief of pain associated with common health problems. This was developed by the research team and pre-tested.

Data Collection

Focus group and interview [N=31]. Data was collected over 5 months based on capacity, suitability of dates and availability of participants wanting to be involved in the focus group meetings and interview. There were 4 focus groups [30] and one interview [1]. These were facilitated by the Aboriginal Elder researcher and CI who were familiar with the communities involved.

Once consent was granted verbally the data collection commenced. Participants were assured that they could refuse to answer particular questions and leave the group at any time. They were informed that their names and other personal details were not recorded and the information they gave (data) was to be kept securely in accordance with NH&MRC Ethics Guidelines (2006) and requirements of the three ethics committees involved.

The interview and focus groups were not audio or video taped. Notes were taken by the CI. After the focus group or interview session the CI and Aboriginal Elder researcher discussed and revised the notes to ensure that they accurately reflected the participants' discussion.

Analysis

Manual thematic data analysis was undertaken. Inter-reliability was insured by cross-checking between the Aboriginal Elder researcher and two CIs.

The written records of the focus groups and interview were analysed in detail to identify key themes. A validated process of thematic analysis developed by Braun and Clark [24] (p 87) was used. Several processes were used to enhance credibility (confidence), dependability (reliability) and transferability of the findings. These included use of an audit trail to ensure stability of the data collected over time through a logical, traceable, and auditable process. Inter-rater reliability was achieved using reflective analysis; the CIs and Aboriginal Elder researcher discussed the data and conferred with one another regarding analysis and interpretation; the findings were then presented to a group of Aboriginal community members, who had been participants, for their consideration, refinement and approval. Confidence in the findings of the study was further achieved through participants formulating the final recommendations with the research team.

THE RESULTS

DEMOGRAPHICS

Age range and location of residence

Participants were Aboriginal men and women aged between 20 to 80 years, with the majority of participants being 40 years and over and female. All were living in the northern, western and north-eastern suburbs of Adelaide, South Australia.

Education level

The majority of participants had completed some primary school education ranging from grade 4 -7, but few had attended high school. Of those who had attended high school only one participant had completed year 10.

Despite their low education levels many had been or continued to contribute significantly to their community as salaried workers or cultural advisors in a variety of settings including health, welfare, education, court and correctional services.

Employment, community role and daily activities

A range of roles and activities were reported by participants; mothers, fathers, grandmothers, grandfathers, carers, Elders, volunteers, health and community workers. Weekly activities included working in paid employment, unpaid community roles, home duties, babysitting, art and crafts, attending specific groups such as quilt making, woodcarving, Elders, men's or women's groups.

Health

The majority of participants described their prolonged poor physical health as restricting or impairing their ability to engage in some daily activities. Among the physical health concerns reported included: chronic and acute pain, sleeping problems arthritis, bad eyesight, and diabetes and heart problems. Most reported having multiple co-existing health concerns. None specifically discussed mental health or alcohol and drug problems.

Access to transport

Almost all participants were reliant on taxis, community or family transport. While they discussed use of public buses and trains, many found this difficult due to limitations in their own physical capacity (e.g. 'bad' feet or feeling unwell) and the distance they had to walk to access public transport.

QUALITATIVE THEMES

Knowledge of OTC analgesic medicines

Most participants reported having no or very little knowledge of the nature, risks and harms associated with medicines, including OTC analgesics, and how these might affect them personally. They felt the need to be well-informed and wanted to be educated and guided regarding this issue – for both themselves and their family members. A few participants reported having a basic understanding of why they could or could not take certain OTC analgesics due to their medical status bringing them into regular contact with the same doctor and pharmacist, and the guidance they were provided in taking their prescribed medications. The majority, however, not only had limited understanding of OTC medicines, but also difficulty explaining the purpose and essential

information associated with their prescribed medications. Furthermore, participants reported a poor understanding of any advice or instructions they had been given about side effects they should be aware of and what to do if these occurred. A common, emergent theme was a lack of awareness of the risks associated with combining prescription medication, in particular, OTC medicines, including analgesics.

Very few understood the dangers of excessive paracetamol use and the potential for acute overdose and liver failure. Similarly they had no or little understanding of the nature and risks of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). Concerningly, three participants or a family member had recently required blood transfusions apparently due to gastrointestinal bleeding associated with NSAID use.

Participants were also unaware of the serious implications that can arise when taking *combination* medicines simultaneously with other analgesics. Some examples were given, including using Neurofen Plus® (ibuprofen and codeine) *and* additional ibuprofen gel or tablets *and/or* additional paracetamol; panadeine (paracetamol and codeine) *and* additional paracetamol *and/or* cough mixtures containing codeine and paracetamol or additional paracetamol with codeine. This was due to not knowing that these medicines contain at least one common analgesic (e.g. paracetamol or ibuprofen). Once informed, participants were anxious to become better educated by their doctors, pharmacists and Aboriginal health workers regarding the safe use of OTC medication:

'We need to know'

Participants said that all Aboriginal people need to know about the different types of OTC analgesics, how they work in the body and any risks associated with their use. All participants indicated that they would like to be well educated about the many different brands that contain the same medication, such as aspirin, paracetamol, ibuprofen, and how to distinguish them. They reported that appropriate and accessible resources were not currently available to educate Aboriginal people about the different types and brands containing the same drug (e.g. aspirin, paracetamol, ibuprofen), and about generic medicines.

Several participants also reported that Aboriginal people need to understand that:

'it is not always necessary to take medicine'.

Consistent with this, participants described the current format and presentation of essential information about OTC medications (such as on packaging) as inappropriate and inaccessible. The print on labels and consumer information was described as 'too small' and the language, instructions and descriptions difficult to understand resulting in many Aboriginal people remaining uninformed about safe medication use. In addition participants said that for them, words mean little and do not attract Aboriginal people - but pictures do.

Faith and Trust

A minority of participants were very clear that they only take a medicine as advised by the doctor, chemist or trusted Elder. However, many Aboriginal people commonly rely on family and friends for advice about, or being provided with actual medications as an

aspect of their culture of sharing and reciprocation. An understanding of the positive effects a medication had on one person also informed their understanding of particular medication, as illustrated by this statement:

'we share-if it's good for her I take it'.

We were told that Aboriginal people seek guidance from their Elders because of their wisdom and life experience:

'the Elder is still here and they have the wisdom and experience of living and that is why we believe them'.

Concerningly, participants went on to tell us that the Elders were frequently unable to give such guidance as they themselves did not have the relevant knowledge to impart, and this was a grave concern which worried them. In addition to trusting the advice imparted by the Elders, Aboriginal people place enormous trust in Aboriginal health workers (AHWs) in their community. Aboriginal people expect the AHWs to know about and advise the community, individuals and families about safe medication use.

Sharing information and medicines

Acute and chronic pain is common and many Aboriginal people feel they need analgesia to manage everyday life. Participants talked about sharing their experiences concerning OTC medicines, and often the medicines themselves. These discussions were often between trusted Elders, family members and friends, due to a lack of accessible information and community education on safe medication use, as illustrated by this statement:

'I need to fix it 'now' and so if anybody says here this works, I take it'

The information shared between people was generally not about any therapeutic value, safety, risks, side effects or contraindications of a medicine but rather whether or not it 'works' for them, as indicated by this participant who said:

'We share-if it's good for her I take it'.

Information about the cost, size and colour of particular tablets, who recommended (family or friend) or provided medication, and how easy it is to access, was reported. It was emphasised by some participants that doctors and pharmacists need to educate Aboriginal people appropriately about the reasons why medicines should not be shared with others.

Barriers to safe medication use

Significant barriers exist that prevent the safe selection and use of OTC analgesics, as well as other medications. It was felt that doctors need to take sufficient time exploring what the Aboriginal patient does or does not understand, and educating them about their OTC analgesic and other medication use in the context of their particular health concerns and circumstances:

'if the doctor doesn't tell you we don't ask – we trust in him or her or feel too shy (shame) to ask'.

Doctors need to ask the patient the proper questions that will trigger open discussion about why they can/cannot use particular medicines, why a medication needs to be changed, avoidable costs and other general issues relating to their medication use (e.g., its benefits and risks).

Participants also highlighted the lack of exploration and consideration by medical personnel regarding their specific circumstances including safe medication storage, housing and family circumstances - *'they do not stop to think and ask'* about the number and range of medicines the patient may already be taking, including those they might share with their family and friends or be accessible to young children. Neither do they ask about the practical issues around physically managing medicines as this statement illustrated:

'those little tiny blood pressure tablets – I can't see it and often it escapes the dosette and I miss doses'

The burden of chronic illnesses amongst participants and their need to take multiple OTC and prescribed medications places them at even greater risk of health crises:

'it gets too hard trying to manage all my medications I get sick of it and every now and then I just stop'

Many agreed with this person's statement.

'I see many different doctors'

'Every time I go to the diabetes clinic at the hospital a newly trained doctor sees me and changes my medications - it's very confusing and costs a lot of money. I have to stop using what I only got last visit and get new medications'

This was a particularly important issue for participants who had to attend hospital outpatient clinics regularly for chronic illnesses requiring monitoring, ongoing treatment and medications. They were typically seen by different doctors, which led to inconsistency in prescribing repeat or new medicines. Often medications were changed without adequate explanation, and often very soon after previous medicines had been started or reviewed by the previous doctor. This situation commonly led to significant worry, confusion and financial cost for the Aboriginal person. In addition, not knowing what to do with their 'old' or no longer useful medication was worrying:

'do I still take it?'

Doctors were not adequately informing their Aboriginal patients about what to do with their 'old' medications (i.e. cease or continue, discard or retain).

Doctor-Aboriginal patient relationship

A doctor-patient relationship was described as enabling individuals,

'to have the confidence to ask questions and not to feel so shy or ashamed',

and subsequently gave doctors the opportunity to provide patients with basic information regarding safe and effective medication use.

Forging a trusting relationship between the Aboriginal person and their doctor was only possible with consistent contact with the same doctor, who was respectful and well informed about the Aboriginal person's health problems, medications and social situation.

Participants emphasized the need for doctors and other health professionals to be sensitive in recognising that many Aboriginal people in the community do not necessarily have a sound understanding about their health problems, or medications. Specifically, people may find it too hard to understand particular words and complex instructions due to issues such as poor literacy and numeracy, poor hearing or failing eye sight making it difficult to read and understand small print. Many participants talked about feeling too embarrassed to ask a doctor questions or not knowing how and what to ask. Those participants who regularly consulted the same doctor and/or pharmacist were the most informed about their health problems and medications, saying that they understood what they had to take, what not to take, and why. Even this group, however, was unsure about the actual action or possible side effects and contraindications of their prescribed and OTC medications.

Advertising

Many of the participants said they made their choices in selecting, purchasing and using OTC analgesic medications from some form of advertising, with most mentioning panadol® and neurofen®. Many said that advertising strongly influenced their beliefs that OTC pain medicines were safe. The advertising mentioned was mainly television commercials and supermarket packaging. These next comments typify participants' views:

'TV ads influence you in what you take – they have a nice young man or woman and I think...they're healthy and I want to be like them'

'They see it on the shelves or on TV and think 'I'll try that'

'I take panadol because it's the one I remember'

The packaging is important, for example supermarket packaging of generic medicines (home-brands) that are cheaper and contain the same medication (e.g. paracetamol), but that are not promoted were viewed with suspicion and generally not purchased. A commonly held belief was that as with generic tinned or packaged foods which were thought to be inferior in quality and taste, generic medicines were also considered to be inferior and would not work as well as 'proper' brands, as indicated by this statement,

'I don't take the black and gold brand because I think it's food like you get in the supermarket (generic) and it wouldn't work'.

Aboriginal Health Workers

There was agreement amongst all participants that the role of the Aboriginal health worker (AHW) was very important because AHWs' know about the people and the 'nitty gritty' issues regarding their physical and mental health. They should play an important role in educating families and communities about the safe use of OTC and other medicines. It was expressed that if 'Aunty' is an AHW her community believes in what she advises them about health and medications,

'I will ask her because she is a health worker – she will have the knowledge and answers'.

However participants commented that 'Aunty' may not be able to give good advice about medicines such as OTC analgesics even though she is a trusted AHW because, AHWs do not get the right training on this issue.

As AHWs are relied on by the community as reliable sources of health and medication information, participants strongly proposed the inclusion of safe OTC medication management as an essential part of basic AHW training. Notably participants did not expect an AHW to have expert or specific knowledge of pharmacology, but rather know how and where to access correct information or refer individuals for advice about safe use of OTC and other medications:

'They are the interpreters for their community'

There is a strong need for AHW's to consult quality information sources and liaise between community members, doctors, chemists, nurses and other Aboriginal health colleagues at the local level.

DISCUSSION

The present study investigated the understanding and use of OTC analgesic medication by Aboriginal people living in metropolitan Adelaide. Unsafe use of OTC analgesics amongst Aboriginal people in the metropolitan community of SA was explored, and several risks and harms related to the use of these medicines for Aboriginal people were identified.

Aboriginal and Torres Strait Islander people have the poorest health status in Australia with life expectancy about 17 years below the general population [3]. Health care services and medical treatments have generally improved for many people with chronic diseases. Significant investment and efforts have been made to improve Aboriginal peoples' access to quality health care. Easily accessible, culturally appropriate education and support for safe use of OTC analgesics, and other medications, for Aboriginal and Torres Strait islander people, however, has not been a priority.

This pilot study has identified the lack of information and understanding about the safe selection of OTC and other medications, as an indicator of serious health risks for Aboriginal populations. Universally participants had no or very little accurate knowledge about OTC analgesics, how particular types of OTC analgesics work in the body, potential side effects and contraindications from use. There is an urgent need therefore for Aboriginal people to be well informed through easily accessible culturally appropriate information. Not only is there very little appropriate information delivered in an accessible way, but there is disregard for this issue to be attended to given that this significant population group has extremely high levels of chronic illness and, therefore, high levels of medication use. The need for education on safe use of common OTC analgesics by the Aboriginal community, individuals and families, and AHWs is a major finding, and should be an urgent priority of governments, service providers and all health professionals in contact with this vulnerable population.

A proactive approach is required in the formulation of culturally appropriate and accessible medication information for Aboriginal people. They need to be able to understand what medications they are taking, side effects to report to the doctor and what other over the counter medication they should not be taking with their prescribed medications.

Health practitioners need to be responsive to difficulties that may occur in the home environment relative to particular groups in the community. This includes younger adults using older family members' prescribed analgesics, benzodiazepines and antidepressants as well as unsafe management and storage of OTC medicines (and sleeping tablets) away from babies and children.

It is very important that health professionals recognise that medication adherence can be a significant challenge for some individuals. This is often due to simple factors such as being able to see the tablets to put into a dosette, rather than a lack of motivation. Some participants thought that health professionals should inquire how a person, given their particular circumstances, will manage all types of medications safely and with confidence at home. It is important for the health professional to initiate this conversation and to sensitively ask questions before they add or change another medication, which is often only one part a very long list.

Another important finding was the strong influence that various factors have on the purchasing decisions about OTC medications by Aboriginal people. Elders, as well as chemists and doctors play a significant role in influencing the use of medications, including OTC medication. Elders' knowledge and experience is valued and trusted which is to be expected given the critical and highly respected role Elders have in Aboriginal society. This highlights the importance of health practitioners working with Elders to educate them and promote safe use of medications in their communities and families. This could include assisting the Elders to develop a positive relationship with a local community chemist where the Elder could direct or take a community member, to get good and respectful information about prescribed and OTC medication. Elders should also be provided with information about the key OTC medications in a format that is easy to interpret, understand and see.

Key messages need to be developed in consultation with Elders to enable them to inform other Aboriginal people that '*a tablet does not fix everything*'; where to go for good advice, and being careful about using medications especially those advertised on TV or in supermarkets. It is interesting to note that the supermarket packaging of medications (home-brands) or other generic brands that were not so frequently advertised, but cheaper, were viewed with some suspicion. There was a belief that generic medicines did not work as well as known brands.

It is very important to highlight that the current format and presentation of essential information about OTC medications was reported as inappropriate by the participants in this study. The print was too small, the information was difficult to understand and people, therefore, remained uninformed about their medications risks and side-effects. Words mean little and do not attract Aboriginal people in the first instance, but pictures do. Education was suggested and could be through various approaches, such as posters with pictures and Aboriginal radio programs that give people strategies on how and

what to ask the doctor. The participants overwhelmingly wanted to be well informed so they could make the best choice for themselves and their families. The majority suggested and supported a number of initiatives to better inform their community about OTC analgesic medications.

Aboriginal Australians have the highest proportion of chronic diseases in this nation (AIHW 2008; NATIHS 2005). Despite previous research (as described in the literature review section of this paper), this research emphasises the fact that Aboriginal people remain poorly informed and supported about safe selection and management of OTC analgesics and other medicines, particularly with regard to their own, often complex and chronic, health issues.

There remains poor appreciation about this important issue for Aboriginal people, by relevant policy makers, health service providers, medical, pharmacy, nursing and Aboriginal health worker personnel. There is an urgent need for Aboriginal people to be better supported to acquire the skills and knowledge to manage their OTC and prescribed medicines more safely, to improve their overall health and well-being.

CONCLUSION

Aboriginal and Torres Strait Islander people have the worst health status in Australia, with life expectancy about 17 years below the general population [3]. Significant investment and efforts have been made to improve Aboriginal and Torres Strait Islander peoples' health through better access to health care and prescribed medications. Self – management of minor complaints is typically facilitated by people accessing OTC analgesics and other medicines from pharmacies, supermarkets, delicatessens, petrol stations and health food outlets. Easily accessible, culturally and linguistically appropriate education and support for safe use of OTC analgesics for Aboriginal and Torres Strait Islander people has not been given the high priority required.

It is clearly very important to promote safer use of OTC analgesics and other medicines within the Aboriginal community as highlighted by the findings of this study. Aboriginal people participating in this study have clearly indicated that they and many other Aboriginal people require and expect to be provided culturally appropriate and accessible medication information, guidance and support by doctors, pharmacists and Aboriginal health workers in particular.

Their issues and concerns have been expressed in their recommendations for change.

THE RECOMMENDATIONS

The preliminary findings were presented to a combined community group of participants for discussion, clarification and validation. Once refined and confirmed the group assisted the researchers in drafting the recommendations provided below:

We recommend that for Aboriginal people:

1. Doctors, nurses and Aboriginal Health Workers (AHWs) ensure their patients/clients understand how to take their OTC analgesics (and other medicines) safely, for example:
 - a. Dose, timing of use, safe storage, used by dates
 - b. What to do if concerned
 - c. Know when to return to 'have a yarn' about how things are going
2. Doctors, pharmacists, nurses and AHWs ensure they fully inform their patients/clients of any risks associated with taking OTC analgesics with other preparations including their prescribed medications
3. There needs to be culturally and linguistically appropriate and accessible information about safe-use of OTC analgesics and other medicines made freely available and this:
 - a. should meet their requirements for text with large print, few words, easy to understand language, pictures and stories about real medicines and peoples' experiences.
 - b. will also be relevant to other ethnic population groups and older people or those with reading or literacy problems.
4. Doctors, pharmacists, nurses and AHWs need to take a broad view (holistic) about their Aboriginal patient's personal circumstances when discussing, prescribing or advising on particular medicines, including OTC analgesics, this:
 - a. includes initiating sensitive and respectful conversations about how they store, take and manage their medications at home;
 - b. is important to counteract the influence advertising may have on people's decisions to take OTC medications that may be inappropriate given their medical conditions and prescribed medications.
5. Doctors, pharmacists, nurses and AHWs must education Aboriginal clients about the high risks of sharing medicines with other people.
6. Elders and AHWs are the two groups in the Aboriginal Community who can influence positive change in the way OTC medications are used. Health care professionals and policy makers should therefore engage with these groups, to take their advice and involve them in promoting the safe use of OTC medications to their community.
7. Core curriculum of the AHW training should include safe medication use. This is to:
 - a. support AHWs in their expected role of educating and supporting safe use of medications in their community – within an appropriate scope of practice

8. Eye catching easy to read paper based notices with pictures about how to select and use OTC analgesic and other medicines safely are urgently required. These:-
 - a. should be on display and available as handouts in chemist shops, Aboriginal and mainstream community health centres, doctors rooms, dental services, hospital waiting rooms, supermarkets and other outlets, community meeting venues etc.
 - b. could be shown on digital screens in the above settings
 - c. should include real images of allergies and side effects (e.g. urticaria and asthma; liver and kidney damage; gastric bleeding and ulcers; toxicity/overdose).

9. GPs, pharmacists, nurses and AHWs need to educate and encourage Aboriginal patients/clients to ask their doctor to arrange medication reviews in their home. This:-
 - a. would be arranged with a visiting pharmacist and should include an Aboriginal Health Workers
 - b. should be at a time when the family can be present to be educated, encouraged to ask questions and learn.

10. When advising the patient about their OTC analgesics and other medicines the doctor, pharmacist, nurse and AHW should write a clearly laid out list with the patient/client of all current medicines and any to be ceased.
 - a. A standard template used by all health professionals will enable consistency
 - b. It should include columns, boxes and pictures to allow for ease of use and instruction such as:
 - i. what it is – e.g. tablets, eye drops, liquid, inhaler
 - ii. what it does – e.g. eases pain; reduces inflammation
 - iii. why it is needed – e.g. reduce swelling or cough
 - iv. what to do if side effects happen
 1. not urgent and what to do
 2. urgent and what to do
 - v. if any other medicines (including herbal/home preparations), foods, alcohol or activities are to be avoided while using the medicine/s
 - vi. how to dispose of unwanted medicines safely.

11. Further research on OTC analgesics to be conducted with communities in outer suburban, rural and remote communities.

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