



An evaluation and comprehensive guide to successful Aboriginal health promotion

Charles J (2015)

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Suggested citation

Charles J (2015) An evaluation and comprehensive guide to successful Aboriginal health promotion. *Australian Indigenous HealthBulletin* 16(1).

Acknowledgement: I would like to acknowledge the traditional owners of all of the many Aboriginal and Torres Strait Islander Nations that make the great continent of Australia. I would like to pay my respects to the Aboriginal and Torres Strait Islander elders past and present, also the young community members, as the next generation of leaders and representatives.

Disclaimer: In some instances in this paper I will be using the term 'Aboriginal' to describe both Aboriginal and Torres Strait Islander peoples. This is due to word restrictions, and no disrespect is intended to any individual or group.

Abstract

Objective: The object of this paper is to examine and evaluate a report on an Aboriginal health promotion program on: its effectiveness in reducing injury, poor foot health, smoking, alcohol consumption and improved diet for young Aboriginal people in a rural community. Also to provide a comprehensive guide to successful health promotion in Aboriginal communities.

Methods: Evaluation of assessments, results and feedback on a comprehensive Aboriginal health promotion package, which consisted of education and practical hands on sessions, designed to: reduce injury, assist poor foot health and provide education on the effects of smoking, alcohol consumption, and poor diet, specifically related to exercise, training and playing sport.

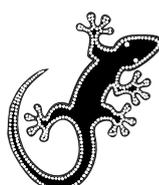
Results: Ankle, knee and back injuries were very high for participants. Only 1 participant that reported back at the 4 month

follow up had an injury in that period and all participants stated that they had better knowledge of how to prevent injury. For participants who gave feedback at the 4 month follow up, 6 out of 16 (37.5%) had lost between 1 and 3kgs, 5 out of 16 (31%) had attempted or have now quit smoking, 3 out of 16 (19%) had reduced or quit drinking alcohol and 3 out of 16 (19%) had increased their intake of fruit and veg.

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Core funding
is provided by the
Australian Government
Department of Health



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Conclusions: The multifaceted health promotion was very successful. Attendance at sessions were very high, which was a huge part of the success. The education sessions were flexible, and very practical and encouraged participation. The program was delivered how and when the Aboriginal community wanted it. Due to community ownership there was real enthusiasm for the program, and this was one of the main reason for the success.

Implications: The information gained from this evaluation will assist in identifying and developing a formula for success in Aboriginal health promotion that could be reproduced in any Aboriginal community on any topic.

Introduction

The World Health Organisation (WHO) states health promotion is giving people power to have control over their own health outcomes (1). It is also a thorough social and political process, which improves the skills and builds capabilities of people, but importantly community participation is paramount to successful health promotion (1). The Ottawa Charter, 1986, has three basic strategies for health promotion, these are advocacy, enabling and mediating (2). Although the Ottawa Charter has very good principles for health promotion, in 1997, WHO Jakarta Declaration added, very importantly and very relevant to the Aboriginal community, that people need to be central to health promotion and community participation is essential for success (3). The Jakarta Declaration also promoted community capacity building and empowerment (3). The most recent advice on health promotion from the WHO, the Helsinki Statement in 2013, calls on government to provide more involvement and funding (4).

The funding for the Aboriginal health promotion being evaluated in this paper was provided by the NSW State Government via Hunter New England Health with their *Aboriginal health promotion program*.

Aboriginal people suffer with a high prevalence of chronic conditions which accounts for approximately 60% of the premature morbidity and mortality occurring in this population (5). A number of these chronic conditions including diabetes, heart disease and peripheral vascular disease, are highly prevalent within Aboriginal communities, and have been shown to be associated with poor health outcomes (6-8). Many chronic conditions are associated with being overweight or obese, smoking, alcohol consumption, and sedentary life style, which were targets of the health promotion examined in this paper.

The key overarching focus of the health promotion being reviewed in this paper is preventing musculoskeletal injury and keeping Aboriginal people active and playing sport. Aboriginal Australians are very athletic, and have been for many thousands of years (9, 10), this has been an evolutionary process (11), developed through

survival skills required to thrive in a very harsh environment (12). Sport and athletics are very important to many Aboriginal cultures, not just for survival, ball games were played and were witnessed by a colonist in 1840, who reported the Kurna (Aboriginal Tribe) people playing ball games (10). Obviously athletics were also essential for hunting, which would have required great acceleration and speed, but also great endurance at times (13). The great running speed of ancient Aboriginal Australians has been documented in foot prints at Lake Mungo in the Willandra Lakes area of NSW (14), where an Aboriginal man was running at approximately 30Km/h (approx. 20,000 years ago) (15). This athleticism has continued with Aboriginal men participation in the Australian Football League (AFL) and Nation Rugby League (NRL), estimated to be approx. 20% (16) and high percentages in most other sports and athletics.

With the importance of participation in sport at all levels for individual and Aboriginal communities, injury diagnosis, understanding the cause of injury and prevention of injury are extremely important. There has been limited research into ankle, knee and back injury in Aboriginal populations, but a study showed that the most common musculoskeletal injury in rural and remote areas was lower back injury and the commonly reported pain level was 'high' in a specific survey (17)(18). Research in an Aboriginal population in Queensland reported that there was a higher prevalence of chronic musculoskeletal problem than in the non-Aboriginal population, and the pilot study also found that this was partly due to labouring type of employment (19). A study of chronic conditions in an urban Aboriginal population in Melbourne found that 14% of chronic conditions were musculoskeletal problems (20). Researchers also reported that approximately 30% of Aboriginal men and 50% of Aboriginal women had a long term lower back complaint (21) and another study reported similar percentages in indigenous communities around the world (22).

Objectives

The health promoters targeted Aboriginal male and female rugby league players, as they were healthy and active, and were considered to benefit the most from the program. An important objective was to access Aboriginal community members for foot problems which are a risk for injury, and potentially prevent physical activity and participation in sport. The program also was designed to educate individuals on their personal musculoskeletal system, body function, sport specific training regime, which empower individuals with the ability to manage and prevent injury. It was an objective to produce a health promotion program that could be delivered in any Aboriginal community with some modification. An important objective was to encourage participants to have better dietary intake, especially fruit and vegetables. Being overweight or obese is a problem for all Australians with 56-60% of the Australian population tested being overweight or obese but percentages are higher for Aboriginal people with the exception

of some Aboriginal men cohorts (23), so it was anticipated that if participants improved their diet they would also lose weight. Smoking tobacco in the Aboriginal population is reported to be 45% compared with 22% for non-Aboriginal Australians (24), and it was an objective to educate participants of the implications on health due to smoking. Also reducing alcohol consumption was another objective, especially high levels of consumption, because approx 19% of Aboriginal people over 15 years are drinking at levels putting them at risk of harm (25). To prevent musculoskeletal injury and increase knowledge about basic treatment of injury, was also an important objective. Other objectives were to promote and encourage being active, exercising, training, and participation in sport. The promotion of all these objectives will decrease obesity, chronic conditions and prevent premature morbidity and mortality in the Aboriginal population.

Aboriginal health promotion program

The program was designed specifically for the local Worimi Aboriginal community in Forster/Tuncurry NSW. The unwritten theme for the program was Aboriginal community engagement, consultation and ownership. The engagement and consultation meant the program was delivered how and when the community wanted it, which created real enthusiasm for the program and 95% of participants attended all sessions. The program was flexible and the theory session's delivery times were changed at the communities request and presented on a weekend which proved successful. A local Aboriginal advisory committee was set up which is extremely important for any Aboriginal health promotion, as the committee can not only give advice but act as a liaison between health promoters and the local Aboriginal community.

There was an introduction session outlining the program, then a series of educational sessions on smoking, alcohol, diet, and injury prevention. There were also practical session on good training techniques and injury prevention, including ankle and knee strapping. The theory education sessions were important but they were also interactive, which encouraged engagement, via questions and comments. The theory education sessions used plain language, also pictures and animation to demonstrate theory. A written resource in the form of a booklet was produced, but also importantly an audio visual resource (DVD) was provided for those participants that may have literacy difficulties. There was also an injury evaluation session on each individual, which was educational for individuals and the group, e.g. participants identified when ankle strapping would be appropriate to prevent injury, and then shown how to provide the strapping. All theory based educational session's entailed PowerPoint presentations, but to keep the participants actively engaged many practical examples were given, and

relevant storytelling used. A meaningful and engaging way for the participants to interact and learn.

Traditional Aboriginal health promotion

Many Aboriginal tribes have been practising health promotion for millennia with Dreaming. Many Dreamtime stories are about creation but many are also about learning. They are often set in conflict, right and wrong, jealousy, arguments, disagreements, and listeners are able to learn from the mistakes made by animals, creators and people in these stories. Traditional lifestyles were able to be guide people through Dreamtime stories, which will keep people safe and well e.g. eating the right foods, in the right amount, at the right time of year, which is like modern day health promotion. When Australia was colonised the colonist tried to change Aboriginal peoples' way of life through health promotion. Unfortunately it was inappropriate health promotion, and was unsuccessful. Mostly because they were forcing western ideas, with no consultation, engagement or involvement of Aboriginal people. Unfortunately a lot of modern health promotion in Aboriginal communities is still culturally inappropriate.

Often well-meaning people go into Aboriginal communities wanting to deliver health promotion. Often they already know the health topic and have the health promotion already developed, but it may not be a priority of the local Aboriginal community and it may not be how they want it delivered. Looking at the Ottawa Charter, Jakarta Declaration and the Helsinki Statement (2-4), for any health promotion to work the community must be involved and take ownership. There also needs to be appropriate language used, community engagement, local community consultation and involvement.

Aboriginal artwork

A local Aboriginal artist, Terry Johnston, was commissioned to do some specific art for the program. Each piece of art had a story which was relevant to the local Aboriginal community e.g. dolphins are important in Worimi culture (Figure 1). The art was used in all the sessions on PowerPoint slides, booklet, DVD and promotional material. The art was bright, traditional and used relevant stories, and all the participants connected strongly with the art, this facilitated community ownership and belonging.

Figure 1: Dolphins



Artist: Terry Johnston

Support

The health promotion had great support from Tobwabba Aboriginal Medical Service staff and management to implement the program. The program also had support from Forster Hunter New England Health, Aboriginal Health Education Officer; who helped with organisation and provided some equipment, and also participated in practical demonstrations. Aboriginal football teams (men and women for Aboriginal rugby league Knockout) coordinators, who acted as liaison to coordinate the program. The National Indigenous Television (NITV) came to film the program in progress. This network of wide support from different Aboriginal individuals, groups and organisation is essential and played a huge role in the success.

Baseline

The focus of the assessments was to evaluate each individual's risk of injury, which could prevent those individuals from being active and playing sport. The assessment also recorded current smoking status, alcohol consumption, fruit and veg intake, past and present injury, and current levels of activity and weight. The Aboriginal art below (Figure 2) represents injury to bone.

Injury assessments - In the past 2 years there were a total of 27 injuries, 6 knee, 10 ankle and 11 back injuries, which were evenly spread between males and females. Females had 5 ankle, 3 knee and 5 back injuries. Males had 5 ankle, 3 knee and 6 back injuries. Bearing in mind that some individuals had an ankle, knee and back injury in the past 2 years, never the less, this is a very high rate of injury, and back injury was very similar prevalence to research studies in a rural Aboriginal community (21). What is surprising is the very high rates of ankle injury at approx. 42% which is approx. 40 times high than a study in 2004 (17).

Figure 2: Representation of injury to bone



Artist: Terry Johnston

Foot health assessments - The art below (Figure 3) represents foot injury and pain in the community. One important screening was arch height i.e. low, normal and high. Low and high arch have been associated with different foot injury and complications (27-35): 57% of participants had a high arch, and this has been associated

with ankle instability, strain and pain (36). Ankle range of motion (ROM) was tested by a qualified podiatrist. Limited dorsiflexion ROM at the ankle can precede foot, lower leg pain and injury (37, 38), but has also been associated with athleticism in young people (39). Those people with less than 10 degrees of dorsiflexion are considered to have equinus of the foot (37). This has also been further categorised to stage 1 <10 degrees and stage 2 <5 degrees, with stage 2 putting the individual at great risk of foot complication (37, 38). The participants had their ankle joint dorsiflexion measured with an accurate and reliable device (41). The assessments showed all Aboriginal men had less than 10 degrees of ankle dorsiflexion but 83% had less than 5 degrees (stage 2), 27% of women had less than 5 degrees (stage 2) but the remaining 73% had a very healthy average of 25 degrees. Indicating the Aboriginal men who participated in this health promotion about injury are at greater risk of foot complication. The findings are extremely interesting and do put these people at risk of the injuries mentioned above in future, but fortunately the health promotion program did educate on how to prevent these types of injury.

Figure 3: Representation of foot injury and pain in the community



Artist: Terry Johnston

Results

Only 1 participant that reported back at the 4 month follow up (sixteen participants) had a musculoskeletal injury in that period and all stated that they had better knowledge of how to prevent and treat injury. Of the 16 participants that gave feedback at the 4 month follow up, 6 out of 16 had lost between 1 and 3kg, even though advice in education sessions was not specific about weight loss, 5 out of 16 had attempted or have now quit smoking, 3 out of 16 had reduced or quit drinking alcohol and 3 out of 16 had increased their intake of fruit and veg.

Participant compensation

It is extremely important to compensate Aboriginal participants for the time to attend sessions, it is respectful and reciprocity is important in many Aboriginal cultures. The funds from the project did enable the health promoters to provide good quality shoes which protect and prevent foot strains and pain, and were

good general shoes for activity. Basic inserts which are able to prevent injury e.g. lateral wedges to put in shoes to prevent ankle instability and sprain. Also arch supports (orthotics) were provided for those who had low arch (flat feet) to prevent or treat plantar fascia strain. Heel lifts were provided for those participants who had reduced range of motion at the ankle to reduce and prevent calf muscle and Achilles tendon strain. Health promoters need to be aware that when any testing or assessments are conducted, if any health issues are discovered, treatment needs to be provided. The compensation provided in this health promotion was ideal in many ways, it provides something participants valued, and will improve health and prevent complication in future.

Sustainability

Sustainability of health promotion is extremely important, Aboriginal people and communities don't want 'one off' projects, they want continuity and 'on going' projects that they can provide themselves. A poster and booklet/pamphlet was produced and provided to all participants, which has all the relevant educational information for the project, which could be provided to any Aboriginal community anywhere in Australia. A DVD was also provided to all participants with all the education sessions, this also gives participants another option other than reading material. This is important as many Aboriginal people are visual learners and have been learning orally for thousands of years. Although literacy and numeracy is improving in some Aboriginal communities there are still issue with literacy. Providing this material also empowers the Aboriginal community to build their own capacity to learn and share skills and information.

Feedback

Participants were required to give feedback on the program's education sessions 4 months after they had been delivered. All participants who gave feedback at the 4 month follow up, reported having more knowledge about the effects of smoking, alcohol, diet and correct training, on their health and performance in sport and activity. The personal feedback about the program from participants and other community members who observed the program was very positive. Most importantly participants said they had a better understanding about the musculoskeletal system and how to identify an injury.

Conclusion

The Aboriginal health promotion program was successful for the following reasons. The local Aboriginal community was asked what type of health promotion they would like, on what topic and how would they like it delivered. No one should go to an Aboriginal community with their health promotion already prepared. It

is paramount to consult, engage and involve the Aboriginal community, ask the community, the what, when, and how, they need to have ownership for it to be successful. Another reason this health promotion was successful was a local Aboriginal advisory group was set up to represent the community for advice and liaison. Humour is a big part of Aboriginal society, it is advisable to make any health promotion light hearted when possible. It is ideal to make the health promotion message straight forward, use simple language, with not too much reading material. Use Aboriginal art, music, colours, language and slang, Aboriginal people will affiliate more with the program. Try to use a local Aboriginal person, preferably with some connection with the health issue, and well know, as others will connect. Make it as practical and hands on as possible. Some compensation should be provided to the Aboriginal participants/community for their time. Ideally it would be something health related, that may help or improve health in some way. Involve other Aboriginal organisations, groups and individuals. Often Aboriginal people are very competitive by nature, and very good at games and ball sports, so a good strategy is to incorporate games, challenges and other activities into health promotion. There needs to be a follow up, not just to evaluate the effectiveness of the health promotion but also follow up with participants to give them the opportunity to give feedback on the program.

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Core funding
is provided by the
Australian Government
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