Embedding culture in co-designed chronic disease programs for Aboriginal and Torres Strait Islander people

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Programs for Aboriginal and Torres Strait Islander people for improving the modifiable risk factors of tobacco smoking, nutrition, alcohol consumption, physical activity, and social and emotional wellbeing can reduce the prevalence of chronic disease.[1] However, health promotion programs have typically focused on the individual level rather than broader actions, such as establishing supportive environments or reorienting health care services.[1] To facilitate health equity for Aboriginal and Torres Strait Islander people, these actions must take into account both the social and the cultural determinants of health and wellbeing.[2]

In this issue of the *MJA*, Dissanayake and colleagues assessed the effects on chronic disease risk factors of a novel dietary and lifestyle program that incorporates traditional knowledge and practices, the Hope for Health program, in a single-arm trial in a remote northeast Arnhem Land Yolŋu community.[3] The program was co-designed with a group of senior Yolŋu women, and had been successfully piloted. Strong Aboriginal ownership, governance, and cultural approaches were apparent. At the start of the trial, the 55 adult participants were overweight or obese (based on their body mass index [BMI] or waist circumference); by the end of the four-month program, desirable changes in chronic disease risk factors had been achieved, including in anthropometric (weight, BMI, waist circumference) and some cardiometabolic health measures (reduced low-density lipoprotein cholesterol and glycated haemoglobin [HbA_{1c}] levels). Median walking and moderate and vigorous physical activity also increased by more than 100 minutes per day for the 19 participants for whom analysable data were available. Some dietary improvements were also reported.[3]

The single-arm design of the study by Dissanayake and colleagues was appropriate for the co-designed program. A recent review found that the number of experimental studies of diabetes interventions including Aboriginal and Torres Strait Islander participants was low.[4] However, the authors could report changes in diet, exercise, and metabolic biomarkers can only as being associated with the program; a direct causal effect cannot be assumed. Randomised controlled trials may not be the optimal study design for interventional research involving Aboriginal and Torres Strait Islander people because of problems related to bias, sample size, and ethics.[5] This view is consistent with decisions described by Dissanayake and colleagues that revised the study from a randomised controlled trial to a single arm format because of community concerns that participants allocated to the control arm could be at risk of health deterioration, and the desire for inclusive family participation.[3]

A recent study found that wearable technology for measuring chronic disease risk factors in remote living older Aboriginal and Torres Strait Islander adults was feasible and acceptable in the short term, but problems impeding its use included heat and inconsistent digital connectivity.[6] In the study by Dissanayake and colleagues, usable physical activity data collected using wrist accelerometers were available for only nineteen participants,[4] indicating that this approach was not ideal. Device-based measuring of physical activity in remote populations is challenging. Despite the limitations of self-reported measures in health and wellbeing programs for Aboriginal and Torres Strait Islander people, they may be more viable measures.[7]

Embedding programs in traditional culture, knowledge, and practices is needed to achieve holistic health and wellbeing outcomes.[8] Programs that aim to prevent and manage chronic diseases and facilitate their evaluation must be authentically co-designed with Aboriginal and Torres Strait Islander people for two key reasons. First, self-determination and community leadership can only be achieved through co-design. Second, community and participant ownership in all aspects and stages of the program leads to better engagement and therefore better health and wellbeing outcomes.

In the study by Dissanayake and colleagues, the Hope for Health program was delivered over four months and focused on Yolŋu knowledge sharing, empowerment, and health coaching (*Goŋ-ŋayathanhamirr*), including an on-country (bush) retreat. The study was undertaken in a small, very remote community of fewer than 3000 residents, and the number of participants (adults aged 18–65 years) was small; primary outcome data (weight loss) were available for just 55 people, and secondary outcomes data for even smaller numbers.[3] Nonetheless, the study size was sufficient to examine the primary outcome, and the program could have considerable impact if more broadly implemented.

Program sustainability and long term behavioural change are problems for many physical activity studies, not just those involving Aboriginal and Torres Strait Islander people or undertaken in remote areas. Dissanayake and colleagues recommend embedding successful program elements into local services to optimise sustainability and health management. Aboriginal community-controlled health organisations holistically take the social determinants of health into account in service and program delivery, with strong cultural components.[9] For chronic disease prevention and management, cultural safety, patient–care provider partnerships, strengthening the chronic disease health workforce, primary care service accessibility, and clinical care pathways are essential.[10] Such actions, implemented with consideration of the local context and with community leadership, can best achieve health equity for Aboriginal and Torres Strait Islander people.

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