

Evaluation of an intervention to train health professionals working with Aboriginal and Torres Strait Islander people to provide smoking cessation advice

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Tobacco use accounts for 12% of the total burden of disease for Aboriginal and Torres Strait Islander people.¹

Health professionals who work with Aboriginal and Torres Strait Islander people play an important role in encouraging tobacco cessation,^{2,3} so it is important that they are appropriately trained to address tobacco use among their clients. While there has been little research directly examining the effectiveness of brief intervention among Aboriginal and Torres Strait Islander people, brief intervention has been shown to be effective in general populations⁴ and is considered to be effective for Aboriginal and Torres Strait Islander people if the intervention is applied in a culturally appropriate manner.³ Aboriginal and Torres Strait Islander-specific smoking cessation training, such as the SmokeCheck program, has been intermittently available in some of the states and territories of Australia, with some positive results observed.⁵ However, this program was de-funded in the early 2010s, which led to a renewed need for culturally relevant smoking cessation training in Australia.

The Quitskills course for health professionals working with smokers in the general population has been available since the 1990s in Australia, and the course aims to give participants the skills to assist their clients quit smoking and to enhance their

Abstract

Objective: To investigate the effectiveness and cultural relevance of Quitskills training tailored for health professionals working with Aboriginal and Torres Strait Islander people who smoke.

Methods: A retrospective analysis was conducted with data collected from 860 participants (54% Aboriginal and Torres Strait Islander participants) in tailored Quitskills training from 2012 to 2016. Course participants took part in a survey at pre-training, post-training and four-six weeks post-training to assess confidence in skills to address tobacco, and perceptions of the strengths, areas for improvement and cultural relevance of the training.

Results: Confidence in skills and knowledge to address tobacco increased significantly from pre- to post-training (all indicators of confidence in skills increased $p < 0.001$) and remained high at follow-up. Tailored Quitskills training was perceived as being culturally relevant by Aboriginal and Torres Strait Islander participants, and the training facilitators were the most commonly cited strength of the training.

Conclusions: Quitskills is an appropriate course for increasing skills and confidence among health professionals working with Aboriginal and Torres Strait Islander people who smoke.

Implications for public health: Training courses that are tailored for Aboriginal and Torres Strait Islander people can build the capacity of the health workforce in a culturally relevant manner.

Key words: Aboriginal Health Workers, smoking cessation, training program

community and workplace engagement with tobacco-related issues. The Quitskills program has been shown to increase skills and knowledge to address tobacco with clients.⁶ The mainstream Quitskills training program was adapted in 2012 into a three-day course specifically for health professionals who work with Aboriginal and Torres Strait Islander people who smoke. Cancer Council SA designed the amended program with the assistance of the Aboriginal Health Council of South Australia. The modifications to

the Quitskills course included employing Aboriginal people to deliver the training, ensuring Non-Indigenous trainers were culturally sensitive, inclusion of Aboriginal and Torres Strait Islander-specific course content, increasing the use of visual and interactive materials, and adopting a flexible approach to delivery to allow for different English language capabilities and allow time for story-telling/yarning. These modifications align with strategies that have been identified as critical to optimising training for Aboriginal

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and Torres Strait Islander people, such as flexibility in course content and delivery,⁷ and ensuring training reaffirms Aboriginal and Torres Strait Islander identities, cultures, knowledge and values.⁸

Facilitators from Cancer Council SA have delivered the adapted course across Australia free of charge since 2012, funded by the Australian Government as part of the Tackling Indigenous Smoking Program. The Quitskills program aimed to be a culturally relevant program to increase health professionals' skills, knowledge and confidence to assess and discuss smoking behaviour and support Aboriginal and Torres Strait Islander people to quit smoking. Participants who successfully completed the program and passed assessment received three Statements of Attainment: 'Assess readiness for and effect behaviour change' [HLTPOP014], 'Provide information on smoking and smoking cessation' [HLTPOP015], and 'Provide interventions to nicotine dependent clients' [HLTPOP016].

Pre-workshop, post-workshop and four-six week follow-up feedback from participants was used for continual quality improvement purposes to ensure that the course material was received as intended with regard to cultural appropriateness. In line with the principles of continual quality improvement,⁹ feedback was considered by the training implementation team and incorporated into subsequent workshops to ensure that the training remained relevant and up-to-date. An evaluation component designed to measure course outcomes was incorporated into the feedback form. While these data were collected for quality assurance purposes and not a formal evaluation of the program, the reported top-level outcomes provided to funders were suggestive of a successful implementation of tailored Quitskills training. Recognising the potential contribution that this project could make to the existing tobacco control evidence base and to those seeking to design their own culturally relevant training courses, re-analysis of the full dataset was requested by the project team and carried out by researchers external to the project.

This paper aims to investigate the perceived effectiveness and cultural relevance of Quitskills training tailored for health professionals working with Aboriginal and Torres Strait Islander people.

Methods

Course content and delivery

Fifteen trainers delivered the Quitskills course at various times over the 2012 to 2016 period, typically in teams of two or three depending on course group size. Course topics included the historical and present-day context of tobacco in Australia among Aboriginal and Torres Strait Islander people, the health consequences of tobacco use, the social determinants of health, cessation methods and products/services, brief intervention techniques and motivational interviewing skills. The course content was consistent across states and territories and across the 2012 to 2016 period (except for minor updates e.g. with regards to new technologies, changes to legislation etc.). The training was not compulsory for health professionals working with Aboriginal and Torres Strait Islander clients to complete, but some organisations may have made it compulsory for their staff to attend.

Survey content

Participants completed a survey immediately prior to beginning the course (pre-course survey), immediately after completing the course (post-course survey) and four-six weeks after the course (four-six week follow-up survey).

Participants were asked at all survey time points to indicate their level of agreement with four statements regarding their knowledge, skills and confidence to address tobacco: 'I have the necessary knowledge to help my clients with tobacco related issues;', 'I am confident in my ability to address tobacco use;', 'I am confident undertaking a brief intervention with clients around quitting tobacco;' and 'I feel confident providing a referral to Quitline for clients who wish to quit using tobacco.' The post-course survey also asked participants if there were any strengths to the training, and if so, to comment on what they thought the strengths were (open response). Participants were also asked in the post-course survey to comment on the weaknesses of the course as well as any other course feedback. The four-six week follow-up survey assessed use of skills acquired through the course, tobacco-related changes made at an organisational level since the course, and participant views of the cultural relevance of the course. The question assessing use of skills acquired through the course was only asked in one iteration of the four-six week

follow-up survey, and hence responses were only available from 261 respondents.

Procedure

Participants completed the pre- and post-surveys on iPads via Survey Monkey. Paper pre- and post-course surveys were also used to supplement iPads for timely completion among large groups of participants. Participants initially completed the four-six week follow-up survey via phone with a trained research assistant (until 1 May 2014), and later online via Survey Monkey as a more cost-effective strategy.

Non-responders to the phone survey were followed up with two reminder phone calls; there were no follow-up emails sent to non-responders to the online survey.

Sample and response rate

The response rate to the surveys is reported as a proportion of course registrants as the number of actual course attendees was not recorded. Most participants completed the pre-workshop survey (n=787, 77% response rate), 765 participants completed the post-workshop survey (75% response rate) and 416 participants completed the four-six week follow-up survey (included in the evaluation from May 2013 onwards, 41% response rate). The response rate to the follow-up survey was 79% when administered by phone and 26% when administered online via email.

In total, survey data were available for 860 individual participants at one or more survey time points. Approximately one-third (31.5%, n=271) of participants provided data at all three survey time points.

Statistical analyses

All proportions were tested for differences by Aboriginal and Torres Strait Islander status and remoteness of workplace using Pearson's Chi Square test, and these have been noted where significant. Fisher's Exact Test was used where cell sizes were too small to use Pearson's Chi Square test (i.e. where >20% of cells had an expected count of less than five). Differences across time points were tested for using McNemar's test for paired data, and the Wilcoxon signed-rank test was used in cases where McNemar's test was not appropriate due to cells containing zero values. Pearson's Chi Square test was used to compare independent proportions within time points. Differences were considered significant at $p < 0.05$. Statistical analyses were conducted using *SPSS Statistics 24*.

Responses to open-ended questions were analysed by author KM and coded to reflect which aspects of the Quitskills course were most frequently mentioned as being a strength, an area for improvement or as being culturally relevant (or not) for Aboriginal and Torres Strait Islander health professionals. An Eora and Yuin Elder (author HS) reviewed the coding to ensure the responses had been coded in a way that is accurate and sensitive to Aboriginal cultural nuances.

Ethical approval

Permission was obtained (both ethical approval and project team approval) to retrospectively access the non-identifiable data obtained from the feedback forms in order to comprehensively analyse and report on the effectiveness and appropriateness of the program given the data available. Ethical approval was obtained from the Aboriginal Health Research Ethics Committee (Protocol number: 04-17-707).

Results

In total, 1,020 health professionals registered for 101 Quitskills courses between 12 February 2012 and 17 May 2016. The 101 workshops were delivered by 15 trainers from Cancer Council SA across all states and territories of Australia: 28 in South Australia, 21 in the Northern Territory, 16 in Western Australia, 14 in Victoria, 14 in New South Wales, four in Queensland, three in Tasmania, and one in the Australian Capital Territory. Workshops were delivered in metropolitan areas (29.5%), inner/outer regional areas (44.8%) and remote/very remote areas (25.7%), with remoteness of areas defined by the Australian Statistical Geography Standard.¹⁰

Quitskills training was delivered to groups ranging in size from two to 23 participants, with an average groups size of 9.8 (standard deviation=3.4).

Participant characteristics

Table 1 displays the demographic and employment characteristics of study participants. Pearson's Chi Square test showed that demographic and job characteristics were significantly different for participants who completed the pre-survey but not the four-six week follow-up survey, compared to those who completed the four-six week follow-up survey. This is likely

attributable to the reduction in missing data across all characteristics among participants who completed the four-six week follow-up survey.

Changes in skills, knowledge and confidence at pre-course, post-course and follow-up

There was a significant increase from pre-course to post-course in agreement (agree/strongly agree) with all statements (listed in Table 2), and all increases in agreement were sustained at the four-six weeks follow-up. This trend was also observed for all subgroups

by remoteness and Aboriginal and Torres Strait Islander status. At pre-course, there was significant variation in agreement by Aboriginal and Torres Strait Islander status with statements regarding confidence in ability to address tobacco use and providing referrals to Quitline. There were no differences by Aboriginal and Torres Strait Islander status or remoteness of organisation at post-course and follow-up, and there were no differences in response mode (email vs. phone) at follow-up.

Table 1. Participant demographic and employment characteristics

Demographic and job characteristics	Pre-survey (n=787) %	Post-survey (n=765) %	4-6 week follow-up survey (n=416) %	Completed pre-survey but did not complete 4-6 week follow-up survey (n=413)	Significance testing for 4-6 week follow-up vs. pre-survey that did not complete 4-6 week follow-up survey ^a
Aboriginal and Torres Strait Islander status					<i>p</i> <0.001
Aboriginal and/or Torres Strait Islander	48.8	48.5	59.4	51.3	
Non-Indigenous	24.0	23.9	33.4	22.0	
Missing data	27.2	27.6	7.2	26.6	
Job role					<i>p</i> <0.001
Tobacco Action Worker/Tackling Indigenous Smoking worker/Healthy Lifestyles worker/other tobacco-specific role	19.2	18.4	27.4	16.7	
Aboriginal Health Worker/Practitioner	8.5	9.0	9.4	9.0	
Social worker/support worker/counsellor/mental health worker	7.9	8.2	10.6	7.3	
Unspecified management/coordinator/project officer role	5.2	5.2	6.5	6.5	
Nurse	5.8	6.1	5.5	7.0	
Health promotion worker (other than the Healthy Lifestyles program)	4.7	5.0	7.2	4.1	
Alcohol and Other Drugs worker	3.6	3.8	5.8	3.4	
Missing data	30.6	30.2	10.8	30.5	
Organisation type					ns
Aboriginal Health Service/Aboriginal Community-Controlled Health Organisation	47.9	46.4	53.8	54.5	
Non-Aboriginal-specific health service e.g. government health region, public hospital etc.	21.6	21.8	24.3	22.5	
Drug and Alcohol Services	5.8	6.4	7.5	4.8	
Not-for-profit e.g. Cancer Council	3.7	3.8	4.8	3.4	
Missing data	16.3	16.7	3.1	9.4	
Organisation remoteness					<i>p</i> <0.001
Metropolitan	16.5	16.2	16.8	16.7	
Inner/outer regional	44.3	45.0	55.3	45.5	
Remote/very remote	25.5	24.1	26.9	30.8	
Missing data	13.6	14.8	1.0	7.0	

Notes:

Some demographic and employment characteristics were not always collected due to changes in the characteristics collected as part of the participant registration process.

a: *P* values pertain to the Pearson's Chi Square test for each whole characteristic (e.g. organisation remoteness) between time points; bolded proportions show specific characteristics with adjusted standardised residuals ≥ 2.0 , indicating that proportions are significantly different between pre-survey (without 4-6 week follow-up) and 4-6 week follow-up survey conditions.

ns: not significant

Table 2. Participant knowledge and confidence for addressing tobacco use

Statement	All participants ^a			Pre-post paired participant data only				Post and 4-6 week follow-up paired participant data			
	Pre-survey (n=787) % agree	Post-survey (n=765) % agree	4-6 week follow-up survey (n=416) % agree	Pre-survey % agree	Post-survey % agree	Pairs (n)	p	Post-survey % agree	4-6 week follow-up survey % agree	Pairs (n)	p
I have the necessary knowledge to help my clients with tobacco related issues											
Total	51.7	98.8	99.8	51.3	99.7	606	<0.001	100.0	99.6	279	ns
Aboriginal and Torres Strait Islander status											
Aboriginal and/or Torre Strait Islander	54.5	99.5	100.0	53.3	99.7	349	<0.001	100.0	100.0	168	ns
Non-Indigenous	49.7	99.5	99.3	52.0	100.0	173	<0.001	100.0	98.9	94	ns
Missing	48.4	97.1	100.0	41.7	98.8	84	<0.001	100.0	100.0	17	ns
Organisation remoteness											
Metropolitan	52.7	99.2	100.0	52.2	100.0	113	<0.001	100.0	100.0	55	ns
Inner/outer regional	50.9	100.0	100.0	50.5	100.0	317	<0.001	100.0	100.0	152	ns
Remote/very remote	53.7	99.5	99.1	52.7	99.4	167	<0.001	100.0	98.6	72	ns
Missing	49.1	93.8	100.0	44.4	88.9	9	ns	-	-	-	-
I am confident in my ability to address tobacco use											
Total	54.5	98.6	99.3	54.2	99.2	605	<0.001	100.0	99.3	279	ns
Aboriginal and Torres Strait Islander status											
Aboriginal and/or Torre Strait Islander	60.5	99.2	99.2	58.7	99.1	349	<0.001	100.0	99.4	168	ns
Non-Indigenous	49.7	100.0	99.3	50.9	100.0	173	<0.001	100.0	98.9	94	ns
Missing	48.1	96.2	100.0	42.2	97.6	83	<0.001	100.0	100.0	17	ns
Organisation remoteness											
Metropolitan	50.4	100.0	100.0	50.4	100.0	113	<0.001	100.0	100.0	55	ns
Inner/outer regional	55.9	100.0	99.6	54.7	100.0	316	<0.001	100.0	99.3	152	ns
Remote/very remote	58.0	97.8	98.2	56.3	97.6	167	<0.001	100.0	98.6	72	ns
Missing	48.6	93.8	100.0	44.4	88.9	9	ns	-	-	-	-
I am confident undertaking a brief intervention with clients around quitting tobacco											
Total	61.8	98.0	98.3	61.0	98.8	602	<0.001	98.6	98.6	276	ns
Aboriginal and Torres Strait Islander status											
Aboriginal and/or Torre Strait Islander	65.6	98.7	98.4	63.6	98.9	348	<0.001	99.4	98.2	167	ns
Non-Indigenous	56.8	99.4	99.3	58.3	99.4	168	<0.001	98.9	98.9	92	ns
Missing	59.4	95.7	93.3	55.3	97.6	85	<0.001	100.0	88.2	17	ns
Organisation remoteness											
Metropolitan	64.1	97.6	98.6	64.3	98.2	112	<0.001	94.5	100.0	55	ns
Inner/outer regional	60.5	99.4	99.1	59.4	99.4	315	<0.001	99.3	99.3	150	ns
Remote/very remote	64.6	99.5	96.4	63.0	99.4	165	<0.001	100.0	95.8	71	ns
Missing	58.1	92.0	100.0	40.0	80.0	10	ns	-	-	-	-
I feel confident providing a referral to Quitline for clients who wish to quit using tobacco											
Total	75.1	98.2	99.3	75.0	98.5	603	<0.001	98.6	99.6	278	ns
Aboriginal and Torres Strait Islander status											
Aboriginal and/or Torre Strait Islander	80.9	98.1	99.2	79.6	98.0	348	<0.001	100.0	98.2	167	ns
Non-Indigenous	66.7	100.0	99.3	65.9	100.0	170	<0.001	100.0	98.9	94	ns
Missing	72.2	96.7	100.0	74.1	97.6	85	<0.001	100.0	94.1	17	ns
Organisation remoteness											
Metropolitan	82.9	99.2	100.0	83.2	99.1	113	<0.001	98.2	100.0	55	ns
Inner/outer regional	75.3	98.5	99.6	74.1	98.4	317	<0.001	98.0	100.0	151	ns
Remote/very remote	71.2	98.9	98.2	69.9	98.8	163	<0.001	100.0	98.6	72	ns
Missing	72.4	94.7	100.0	90.0	90.0	10	ns	-	-	-	-

Notes:

a: Significance testing of demographic differences was not able to be conducted at post-survey or 4-6 week follow-up survey as cell sizes were too small for Pearson's chi-squared test to be conducted

b: Significant variance by Aboriginal and Torres Strait Islander status at time point at p<0.05

ns: not significant

Strengths, areas for improvement and cultural relevance of Quitskills training

Most Aboriginal and/or Torres Strait Islander participants (87.7%) in the post-survey indicated that there were strengths, and the most commonly mentioned strength of the course was the facilitators. Other commonly mentioned strengths of the course are shown in Table 3, and significant differences by remoteness of workplace among Aboriginal and/or Torres Strait Islander participants are noted. A small proportion of Aboriginal and/or Torres Strait Islander participants (14.0%) provided suggestions for ways in which the training could be improved, with the most common suggestions for improvement listed in Table 3.

At four-six weeks follow-up, participants (n=408) were asked whether they thought the training had been culturally relevant for Aboriginal Health Workers, however,

responses were only reported for participants who identified as Aboriginal and/or Torres Strait Islander (n=244). Most Aboriginal and/or Torres Strait Islander participants indicated that they thought the training was culturally relevant (93.4%), 5.7% thought that some parts were relevant and others were not, and 0.8% did not think the training was culturally relevant. There were no significant differences in the proportion of Aboriginal and/or Torres Strait Islander participants who agreed the training was culturally relevant by remoteness or by follow-up survey response mode. The most commonly mentioned aspects of the cultural relevance of the training (in response to "please comment on the cultural appropriateness of the training") by Aboriginal and/or Torres Strait Islander participants, provided through open responses, are listed in Table 3, and differences by survey response mode are noted.

Participant satisfaction with the Quitskills course

Most participants who completed the post-course survey agreed that the training was useful (97.9%), that they found the facilitators helpful (98.8%), that they would recommend the course to others (98.6%) and that the course covered the information they were seeking (95.4%). There was significant variance in the proportion of participants who indicated that the course covered the information they were seeking by Aboriginal and Torres Strait Islander status (Aboriginal and/or Torres Strait Islander participants: 98.0%, Non-Indigenous participants: 91.1%, Missing Aboriginal status: 94.5%, $p=0.001$).

Use of course skills at four-six weeks follow-up

Participants who completed the four-six week follow-up survey were asked to comment on how often and in what ways they used the

Table 3. Aboriginal and/or Torres Strait Islander participants' reported strengths of Quitskills, suggestions for improvement, and cultural relevance of the course (all from open comment), total and by remoteness and 4-6 week follow-up survey response mode

	Total (%)	Remoteness of organisation			p	4-6 week follow-up survey response mode		
		Metropolitan (%)	Inner/Outer regional (%)	Remote/Very remote (%)		Phone survey	Email survey	p
Open comment on strengths of the course	(n=308)	(n=67)	(n=173)	(n=67)				
Course facilitators	33.8	35.8	34.7	29.9	ns	-	-	-
Knowledgeable and experienced	9.1	9.0	11.0	4.5	ns	-	-	-
Supportive and helpful to participant needs	7.5	10.4	5.2	10.4	ns	-	-	-
Multiple facilitators with different strengths	3.2	3.0	2.9	4.5	ns	-	-	-
Aboriginal facilitators	3.2	3.0	1.7	7.5	ns	-	-	-
Motivational interviewing	14.9	22.4	15.0	6.0	.022	-	-	-
Comprehensiveness/volume of information provided	12.0	7.5	12.7	14.9	ns	-	-	-
Interactive nature of the course	4.2	6.0	5.2	1.5	ns	-	-	-
Role-playing	5.5	10.4	5.8	0.0	ns	-	-	-
Cultural relevance/safety of the training	4.5	6.0	5.3	1.4	ns	-	-	-
Aboriginal content	3.9	7.5	2.9	3.0	ns	-	-	-
General positive comment	11.0	13.4	11.0	9.0	ns	-	-	-
Open comment on suggestions for improvement to the course	(n=49)	(n=9)	(n=22)	(n=17)				
Include specific content e.g. for remote workers, prisoners etc.	20.4	44.4	18.2	11.8	ns	-	-	-
Improve training venue/food	12.2	11.1	13.6	11.8	ns	-	-	-
Training was too long/information was repeated	10.2	11.1	18.2	0.0	ns	-	-	-
Training was too short/rushed	4.1	0.0	0.0	11.8	ns	-	-	-
Open comment on cultural relevance	(n=244)	(n=46)	(n=143)	(n=53)		(n=166)	(n=78)	
Facilitators were culturally relevant	46.3	52.2	44.8	45.3	ns	57.8	21.8	<0.001
Interactive nature of the course was culturally relevant	13.9	13.0	14.7	13.2	ns	20.5	0.0	<0.001
Aboriginal content was culturally relevant	11.9	15.2	11.9	9.4	ns	15.1	5.1	0.043
Story-telling/yarning was culturally relevant	10.7	4.3	12.6	11.3	ns	13.9	3.8	0.032
Needs more local language/simplified language	1.2	0.0	0.7	3.8	ns	1.8	0.0	ns
Content should be tailored by community/remoteness	0.8	0.0	0.7	1.9	ns	1.2	0.0	ns

Notes:

ns: not significant. Valid percentages reported for remoteness; cases with missing data for remoteness were N=1 at post survey and n=3 at 4-6 weeks follow-up.

Strengths of the course and suggestions for improvement to the course were assessed in the post-course survey. Invitation to provide open comment on the cultural relevance of the course was provided in the 4-6 week follow-up survey.

skills and knowledge they had obtained from the course, and most participants indicated that they used the knowledge and skills they had gained 'daily' (30.4%) or 'at least weekly' (53.4%). There were no significant differences in frequency of use of knowledge and skills by Aboriginal status, remoteness or mode of follow-up survey.

Participants (n=261) most commonly reported using their skills in their interactions with clients (70.1%), as part of community engagement (29.5%), in provision of NRT/information about NRT (10.7%), and with family, friends and colleagues who smoke (7.3%). There was significant variance in the proportion of participants who reported using their skills for community engagement by Aboriginal status (Aboriginal and Torres Strait Islander: 34.9%, Non-Indigenous: 19.6%, Missing Aboriginal status: 0.0%, $p=.022$). There were no significant differences by remoteness, and questions regarding how skills were used were only included in the phone version of the follow-up survey.

Organisation-level changes since participation in the course

Participants (n=380) who completed the four-six week follow-up survey were asked whether they had observed any changes related to tobacco in their organisation since undertaking the training; 41.3% reported there had been changes, 40.0% reported no changes and 18.7% were unsure if there had been changes. Among those that reported changes in relation to tobacco at their organisation (n=157), the most commonly reported changes were that smoke-free areas had been introduced or extended and/or a reduction in visibility of staff/client smoking (21.7%), staff have quit smoking or cut down (12.7%), and the organisation has made addressing staff smoking a priority (10.8%). There were no differences in organisation-level changes by Aboriginal status, remoteness or follow-up survey mode.

Discussion

The data obtained from the Quitskills course feedback demonstrate that the program has increased the confidence of health professionals across Australia to address tobacco with their Aboriginal and Torres Strait Islander clients. The increase in participants' confidence in their ability to address tobacco with clients, provide brief interventions and

provide Quitline referrals after undertaking the course, is particularly important given the role of self-confidence in driving health professionals' provision of tobacco interventions to Aboriginal and Torres Strait Islander smokers.^{3,11} Similar increases in confidence were observed in the evaluation of the SmokeCheck program⁵, therefore, the Quitskills program appears to be similarly effective for increasing confidence. The comparatively low pre-course confidence to address tobacco highlights the need for tobacco-specific courses for this population of health professionals. These improvements in confidence were not diminished at four-six weeks follow-up, which demonstrates that the confidence gained from the training was accessible upon returning to their work with clients. Further research is needed though to determine whether these improvements in health professionals' confidence translate into improved quitting outcomes for clients.

Participants had largely positive views of the course, with the majority of participants indicating that the course was useful, covered the information they were seeking and was something they would recommend to others. The course facilitators were consistently identified as being a strength of the course, particularly that the facilitators were approachable, supportive and highly knowledgeable. The course facilitators were also frequently mentioned as being highly culturally relevant. This feedback demonstrates the value in recruiting and investing in experienced Aboriginal and Torres Strait Islander facilitators and culturally sensitive Non-Indigenous facilitators for optimal delivery of training targeted towards Aboriginal and Torres Strait Islander people. Participants in the SmokeCheck program appeared to not focus as strongly upon the role of course facilitators when defining the strengths of the course, but this may be because participants in Quitskills spent much longer with the facilitators (three days) compared to the participants in the SmokeCheck program (one day).

The comprehensiveness of information provided over the three-day period was noted as being a strength of the course, and the use of Aboriginal content was noted as being culturally relevant to participants. The use of visual materials and interactive nature of the course sessions was also appreciated by participants, as was the use of storytelling and yarning by both facilitators and participants, which has been noted as an

important part of making training culturally relevant to Aboriginal and Torres Strait Islander people.⁸

While suggestions for course improvement were typically minimal, a common suggestion was to tailor the course to each community, particularly to account for remoteness and differences in language. Indeed, courses aimed at Aboriginal and Torres Strait Islander people should tailor content and delivery to be inclusive of regional cultural and language differences as much as is practically feasible.^{7,8} However, it should be noted that overall the course was considered to be culturally relevant by Aboriginal and Torres Strait Islander participants. Aboriginal and Torres Strait Islander participants were also more likely than Non-Indigenous participants to agree that the course provided them with the information they were seeking, which indicates that the course was successfully tailored to Aboriginal and Torres Strait Islander cultural and informational preferences.

There are limitations to the data on which this paper reports. Demographic and job role data were missing for some participants (and at times a substantial proportion of participants) due to changes in the data fields collected during the course registration process, and smoking status of participants was not collected at all. Routine collection of these variables likely would have provided additional insight into participant views of the strengths of the program and areas for improvement. The use of a continuous improvement evaluation model also has the potential to make overall program evaluation results over a four-year period less useful, as suggestions for improvement tend to be addressed on an ongoing basis. However, given that the content of the Quitskills program remained consistent over time and adjustments to delivery style in response to feedback were only minor, the results from the four-year period are still likely to be reflective of the Quitskills program overall. The response rate to the follow-up survey also greatly decreased when the survey mode transitioned from phone to online. While a continuation of the phone-based follow-up survey was not possible for budgetary reasons, continuation of this likely would have generated a higher response rate at follow-up. There is also a potential for phone surveys to yield more positive responses than anonymous survey methods due to social desirability bias, but participants in this

study appeared to provide more detailed information (both positive feedback and suggestions for improvement) in the phone survey, which may reflect a preference for verbal communication as opposed to online. It is also possible that participants with less favourable opinions of the course may have been less likely to agree to four-six week follow-up. A longer follow-up period (such as that utilised by the SmokeCheck program)⁵ would likely have yielded useful insights as to the long-term effects of the course, as would data regarding quit rates of clients receiving intervention from health professionals trained in Quitskills.

Conclusion

The available data have demonstrated that the Quitskills program is a culturally acceptable training package that effectively increases health professionals' confidence in their skills and knowledge to address tobacco with their Aboriginal and Torres Strait Islander clients who smoke. There is also evidence to suggest that the program had secondary benefits such as encouraging organisations to expand smoke-free areas and a reduction in visibility of staff smoking. The Quitskills program has made an important contribution to Aboriginal and Torres Strait Islander tobacco control by increasing the capacity of health professionals to address tobacco with their Aboriginal and Torres Strait Islander clients.

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References

1. Australian Institute of Health and Welfare. *Australian Burden of Disease Study: Impact and Causes of Illness and Death in Aboriginal and Torres Strait Islander People 2011*. Australian Burden of Disease Study Series No.: 6. Catalogue No.: BOD 7. Canberra (AUST): AIHW; 2016.
2. Robertson J, Conigrave K, Ivers R, Hindmarsh E, Clough A. Addressing high rates of smoking in remote Aboriginal communities: New evidence for GPs. *Aust Fam Physician*. 2013;42(7):492.
3. Johnston V, Thomas DP. What works in Indigenous tobacco control? The perceptions of remote Indigenous community members and health staff. *Health Promot J Aust*. 2010;21(1):45-50.
4. Stead LF, Buitrago D, Preciado N, Sanchez G, Hartmann-Boyce J, et al. Physician advice for smoking cessation. *Cochrane Database Syst Rev*. 2013 May 31;(5):CD000165.
5. Hearn S, Nancarrow H, Rose M, Massi L, Wise M, Conigrave K, et al. Evaluating NSW SmokeCheck: A culturally specific smoking cessation training program for health professionals working in Aboriginal health. *Health Promot J Aust*. 2011;22(3):189-95.
6. Kriven S, Miller C. Evaluation of Quitskills Training Courses. *Tobacco Control Research and Evaluation Report, 1998-2001*. Volume 1. Adelaide (AUST): Anti-Cancer Foundation South Australia Tobacco Control Research and Evaluation Unit; 2002. p. 41-50.
7. Robertson R, Sclanders M, Zed J, Donaldson H. *Working with Diversity: Quality Training for Indigenous Australians*. Brisbane (AUST): Australian National Training Authority; 2004.
8. O'Callaghan K. *Indigenous Vocational Education and Training: At a Glance*. Adelaide (AUST): National Centre for Vocational Education Research; 2005.
9. Australian National Training Authority. *Quality in VET: Principles for Vocational Education and Training*. Brisbane (AUST): ANTA; 1997.
10. Australian Bureau of Statistics. *1270055006C190 Postcode 2012 to Remoteness Area 2011* [Internet]. Canberra (AUST): ABS; 2013 [cited 2018 Jun 18]. Available from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.006July%202011?OpenDocument>
11. Martin K, Dono J, Rigney N, Rayner J, Sparrow A, Miller C, et al. Barriers and facilitators for health professionals referring Aboriginal and Torres Strait Islander tobacco smokers to the Quitline. *Aust NZ J Public Health*. 2017;41(6):631-4.