

Acknowledgements

Thanks are extended to the kaiako, tamariki and whānau of Arowhenua Māori School, South Canterbury who responded to surveys about the Toothbrushing Programme Pilot – Te Hā o Aoraki - implemented at the school in Term 4, 2020. With thanks to New Zealand Dental Association and Colgate for their support of this project.

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Introduction

Late in 2020, a Toothbrushing Programme – Te Hā o Aoraki - was implemented at Arowhenua Māori School in South Canterbury. As part of the evaluation of the programme piloted in this setting, a decision was made to capture the initial experiences of the kaiako, tamariki and whānau participating in the programme during Term 4 of 2020.

Methods

The evaluator planned to offer kaiako and whānau at Arowhenua Māori School an opportunity to co-construct their preferred evaluation approach with the evaluator. The possibilities included face-to-face interviews (at school or at home), online surveying, pen and paper surveys, or attendance at focus groups. For a variety of reasons, including the complexities introduced to the project by the potential for COVID-19 infection in the community (a threat which significantly delayed the implementation of the project), it proved necessary to adopt a pragmatic approach to the gathering of feedback from kaiako, tamariki and whānau.

The school recommended using surveys tailored to each group. To that end, the kaiako were emailed a link to a SurveyMonkey survey by the school principal, tamariki were supported to complete a pen and paper survey (data from the junior and senior paper-based surveys were collated in an Excel document by the evaluator), and CPH-based health promoters interviewed whānau at the school whilst completing a pen and paper survey questionnaire. These responses were subsequently entered into SurveyMonkey by CPH Timaru staff before being shared with the evaluator.

Survey methods

Each survey was tailored to the intended recipient group. In order to reduce any potential for survey burden, wherever possible, statements with 5-point 'strength-of-agreement' Likert scales (i.e., Strongly disagree to Strongly agree) were used with the option of adding a free-text comment. The remaining questions in each survey invited free-text responses and junior students were also invited to draw a picture of themselves brushing their niho (teeth).

Analysis

Each survey was considered and analysed independently of the others. Graphs were created for each question where this was possible, and a simple content analysis of each question's free-text responses was undertaken. Where possible, similar comments were coded and grouped together, to allow any themes to be identified. Once the responses for each survey had been analysed, the results were compared to identify any similarities and/or differences across the different respondent groups surveyed.

Limitations

Although there are high response rates for the kaiako and tamariki surveys, it is important to note that absolute numbers of respondents are low which may affect the generalisability of the findings.

Please also note, that a response rate for Arowhenua whānau survey respondents has not been determined, as whānau encompasses a broad group of potential respondents beyond those of a nuclear family unit.

Results

The results of four surveys are presented by respondent group i.e., Arowhenua kaiako, tamariki (results of a survey for Years 0-4 and a survey for Years 5-8 students), and whānau.

Kaiako Survey

Three of five kaiako responded to the invitation to complete the SurveyMonkey survey, providing a response rate of 60 percent. Despite this high response rate, absolute numbers are low, and it is possible that those kaiako who did not complete the survey had different perspectives from those who did respond. The kaiako survey included eight strength-of-agreement items, which also invited free-text comments, and one item inviting free-text only.

Kaiako were asked to indicate how much they had valued the support of the toothbrushing programme pilot team. All three respondents strongly agreed that they had valued the support provided to them and noted that the team had been *'extremely supportive, always checking in with school staff'*. One respondent noted that the programme was an *'awesome initiative'* and another that the instructions had been clear and *'driven by evidential health research'*.

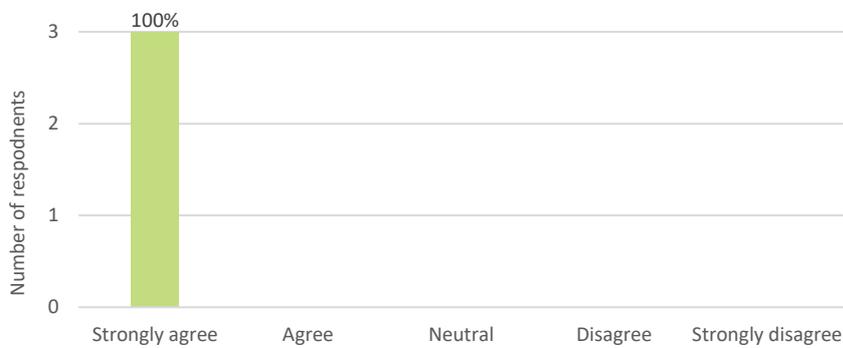


Figure 1: I value the support provided by the toothbrushing programme pilot team (n=3)

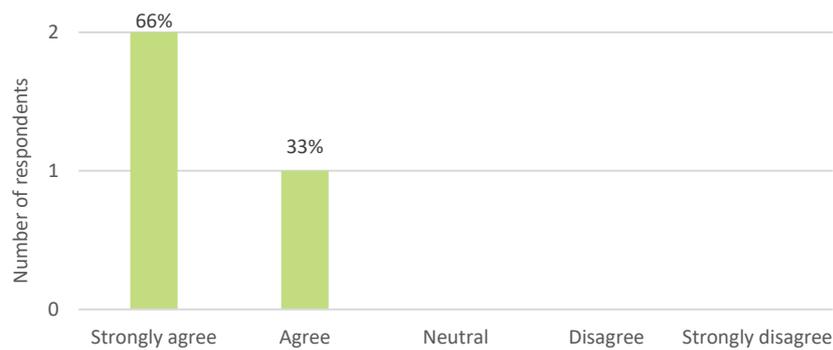


Figure 2: I found the kaiako manual about the toothbrushing programme easy to follow (n=3)

All kaiako agreed or strongly agreed (2 Strongly agree; 1 Agree) that the programme manual they had been provided with had been easy to follow. Similarly, all kaiako agreed or strongly agreed (2 Strongly agree; 1 Agree) that they had been able to manage the practical requirements of the toothbrushing programme easily.

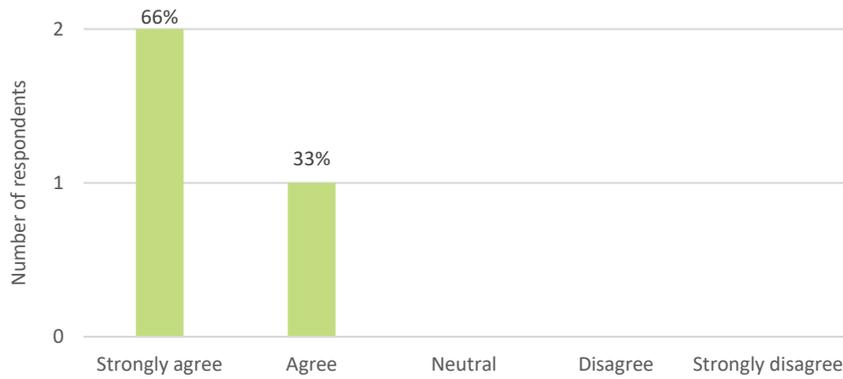


Figure 3: I am able to manage the practical requirements of the toothbrushing programme easily (n=3)

All kaiako agreed (2 Strongly agree; 1 Agree) that the tamariki had adapted well to the expectations of the toothbrushing sessions. One respondent noted that the students had enjoyed brushing their teeth after lunch and another that the tamariki had been, ‘able to independently manage the steps of the toothbrushing process’. One respondent recommended that,

‘this whole process needs to be driven by a BOT and Principal... dedicated time slot outlined in the school’s Policies and Procedures.’

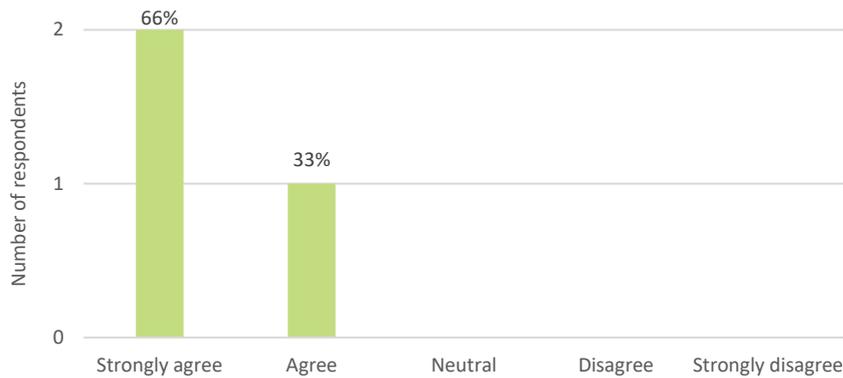


Figure 4: The tamariki adapted well to the expectations of the toothbrushing sessions (n=3)

All kaiako agreed (1 Strongly agree; 2 Agree) that the tamariki manage themselves well during the toothbrushing sessions with one respondent noting that, ‘they manage well, however, they do need guidance.’

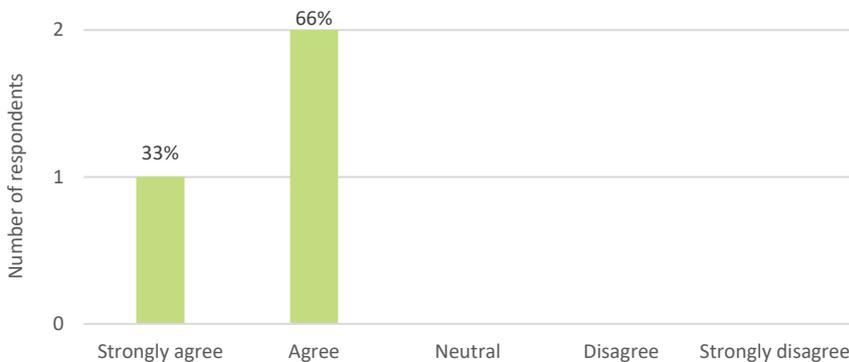


Figure 5: The tamariki manage themselves well during our toothbrushing sessions (n=3)

Kaiako were asked to share any tips they had for helping tamariki to focus on toothbrushing and self-management during the toothbrushing sessions. Suggestions included, re-iterating the importance of brushing teeth, and using YouTube clips on the potential outcomes of poor oral hygiene. One respondent noted that toothbrushing had *'become part of the class routine.'*

All kaiako agreed (1 Strongly agree; 2 Agree) that the toothbrushing programme was a valuable addition to the day at the kura, and all agreed (2 Strongly agree; 1 Agree) that the toothbrushing programme should be an ongoing part of each day with one respondent adding a free-text comment – *'Absolutely'*.

Additional comments by kaiako about the experience of delivering the programme noted that, *'it was pretty straightforward'* and that, *'the programme has become part of the students' and classroom routine'*.

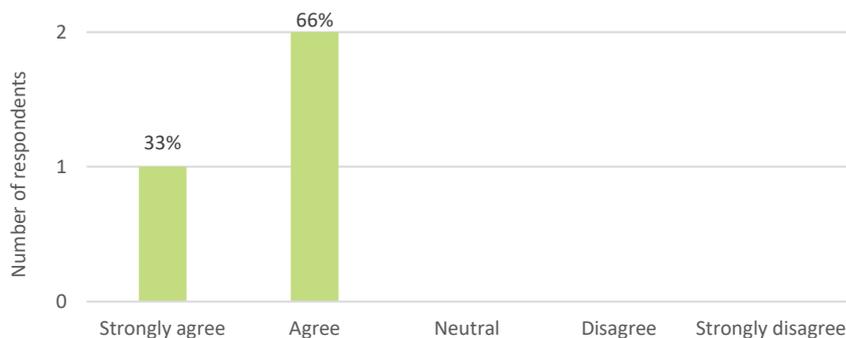


Figure 6: The toothbrushing programme is a valuable addition to the day at our kura (n=3)

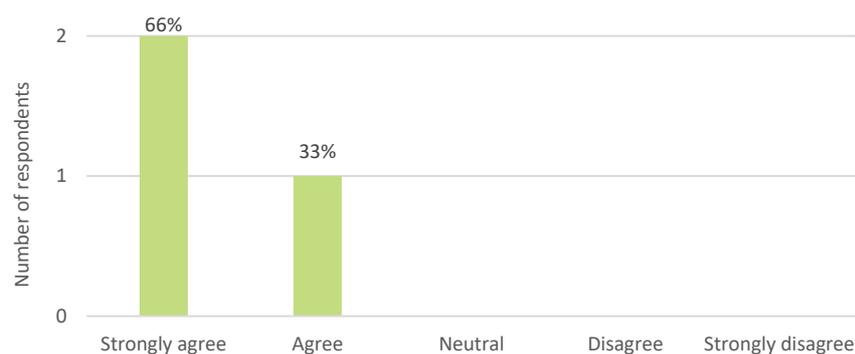


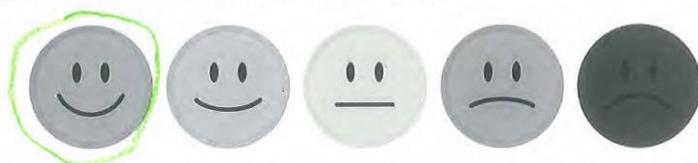
Figure 7: The toothbrushing programme should be an ongoing part of each day at our kura (n=3)

Tamariki - Junior Survey

Twelve students (of a Junior school roll of 12 – 100% response rate) completed the junior survey with assistance. There were three survey items including one strength-of-agreement scale, one question inviting free-text and one opportunity to provide a drawing. The first survey question asked tamariki to choose the face that represented how they felt when it was time to brush their niho/teeth at kura.

1. How do you feel when it is time to brush your niho at kura?

Please circle one of the faces to show how you feel.



Eleven students provided a response to this question which could be interpreted (one student selected two faces which meant their response could not be included in the findings). Of the 11 responses that could be interpreted, all 11 students selected

the most smiley of the smiley face options, indicating a very high level of positivity about the toothbrushing programme.

The second question in the junior survey asked tamariki, 'What is the best thing about brushing your niho at kura?'

All students offered a response to the question, with half commenting on the toothbrushes and the toothpaste and some made specific comments about what they particularly liked...

'Like having my toothpaste easy to use toothbrushes. I do it so far.'

'Toothpaste feels good on my tongue. Like design of toothbrushes - right size for me.'

'Feels good to brush your teeth. Feels like toothpaste likes me.'



Students also commented that they liked brushing their teeth and one noted that the best thing was 'Arowhenua Brush'.

'Brushing my teeth with my friends.'

'Making it clean so you don't get too dirty teeth.'

The final item on the junior survey invited tamariki to draw a picture showing them brushing their teeth along with their friends (see Images 1, 2 and 3)

Image 1



Image 2



Image 3

Tamariki - Senior Survey

Twenty-four students completed the senior survey, some with assistance. The school roll for the Middle School was reported as 10 and the Senior School as 14, indicating a 100% response rate for this survey.

The survey included three strength-of-agreement items and two items which invited free-text responses. The first item asked students to indicate if they thought the toothbrushing programme was going well. The majority of the students (88%) agreed that the programme was going well (9 Strongly agree; 12 Agree) with one selecting a neutral response and two disagreeing.

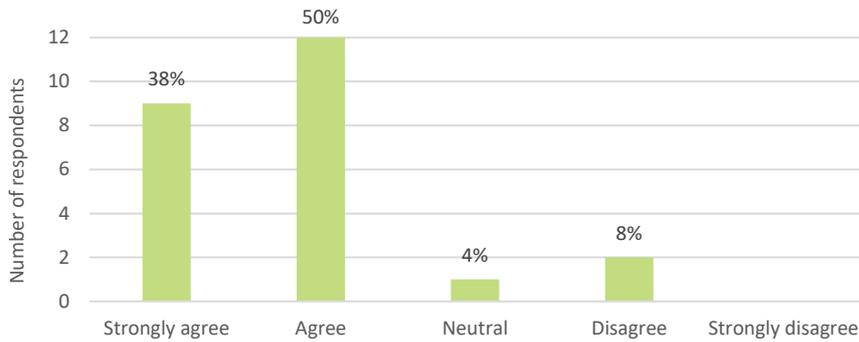


Figure 8: I think the toothbrushing programme is going well (n=24)

The next item invited the tamariki to indicate whether or not they liked brushing their niho/teeth at school. Once again, the majority (75%) of students agreed (11 Strongly agree; 7 Agree) that they liked brushing their niho at kura. Three students offered a neutral response to the statement, one student disagreed and two strongly disagreed.

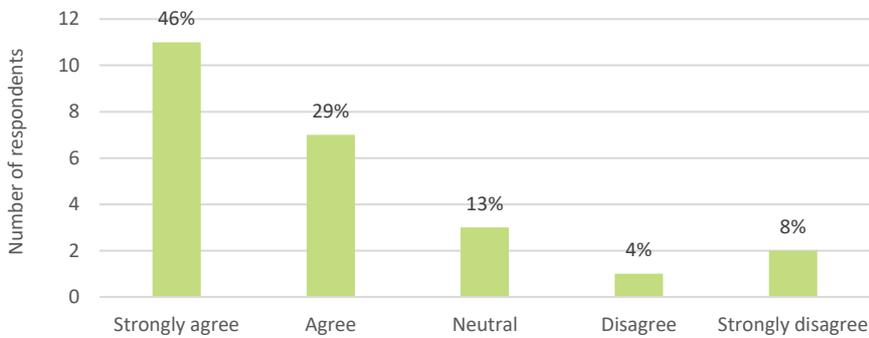


Figure 9: I like brushing my niho at kura (n=24)

The next item invited tamariki to indicate whether or not brushing their teeth at kura was helping them remember to brush their niho at home. Of the 23 tamariki who responded to this question the majority (74%) agreed that this was the case for them (15 Strongly agree; 2 Agree). Some students disagreed that brushing their teeth at school helped them to remember to brush their teeth at home (Disagree 3; Strongly disagree 2).

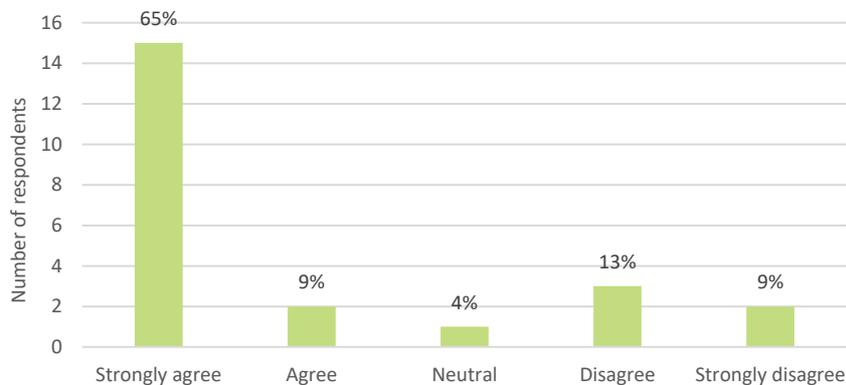


Figure 10: Brushing my teeth at school helps me remember to brush my niho at home (n=23)

The final items in the survey of senior students were a question asking them what they thought was the best thing about the toothbrushing programme and an opportunity for the students to provide their ideas for improving the programme.

Twenty-four students offered a comment in response to the question, 'What is the best thing about the toothbrushing programme?'. Most students mentioned that it helps them to keep their teeth clean and that it helped them remember to brush their teeth. Some tamariki also mentioned that they wanted to have clean, shiny teeth and others commented on the importance of brushing teeth to avoid bad breath and having one's teeth fall out. Having an established routine and brushing their teeth at school with friends and cousins was also mentioned.

'I liked brushing my teeth at school cause I forget to brush at home.'

'Good to brush your teeth cos it's important and your teeth don't fall out.'

'It makes my teeth clean and reminds me to brush my teeth.'

Three students reported that they hadn't liked brushing their teeth at school, and another that although they had liked the routine, their teeth hurt following brushing.

Thinking about options for improving the programme, tamariki suggested having better access to running water, having separate sinks, and clearer labelling of toothbrushes. A number of students made general comments about the routine being a good one (although one wanted a change of time and another wanted to brush more often). Three comments were about disliking the toothpaste with one reporting that the toothpaste was *'too minty'*. A few students commented that brushing hurt their gums/teeth and that they didn't really like the toothbrush or the length of time they needed to brush.

Overall, tamariki were positive about the programme and offered some useful and practical suggestions for consideration.

Whānau Survey

Nineteen whānau surveys were completed. The whānau survey included seven items – six strength-of-agreement items, which also offered the option to add free-text, and the seventh and final item invited respondents to add any further comments they wished to make about the programme.

Asked whether they had received good information about the toothbrushing pilot the majority (89%) of respondents agreed (Strongly agree 7; Agree 9) that this had been the case (Figure 11).

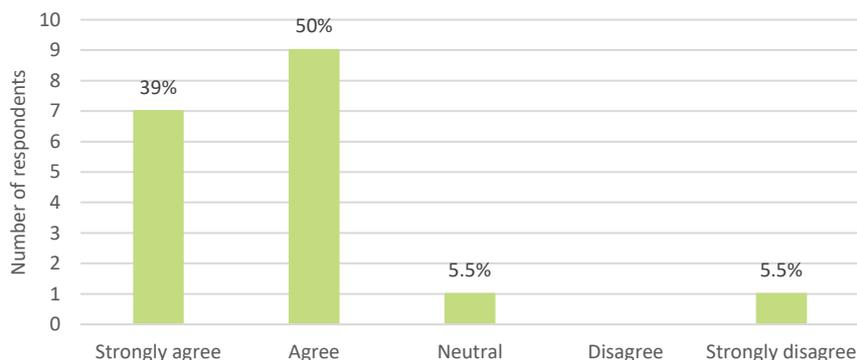


Figure 11: We received good information about the toothbrushing programme pilot (n=18)

Some respondents reported that they had found out about the programme from the kura (via panui or the whānau hui) and one noted that they were made aware of the programme through their child, and another through contact with a community nurse. One respondent reported having been unaware that there was to

be a presentation at the whānau hui and was disappointed to have missed the opportunity to hear about the programme.

Eighteen of nineteen respondents (95%) agreed (Strongly agree 15; Agree 3) that they were pleased the toothbrushing pilot was being held at the kura (Figure 12). One respondent selected 'Strongly disagree', in response to this question, but none of the free-text responses provided an explanation for this response.

Of the thirteen free-text responses to this question, all were either strongly positive of the programme itself or noted other benefits such as reinforcing the importance of brushing and oral health, offering continuity between home and school, and being helpful for the occasions when children left home in a rush or forgot to brush their teeth at home. One respondent noted that their children were encouraging each other to brush their teeth at home, and another that it was 'good for kids to understand'.

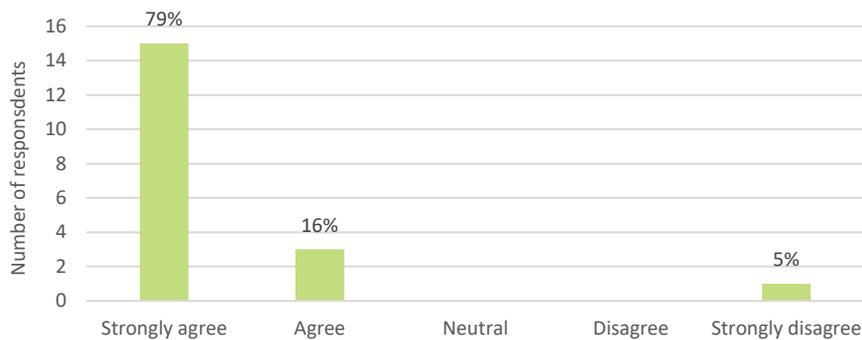


Figure 12: We are pleased the toothbrushing pilot is being held at our kura (n=19)

Eighteen of nineteen respondents (95%) agreed that the whānau pack provided had been useful at home (Figure 13). Of the 11 free-text comments, one said that they had got their pack from 'Community Health', one noted that although they agreed with implementing beneficial practices for students, they personally believed the ingredients in toothpaste were harmful, and another that their children had not used the brushes as they considered themselves to have 'graduated' to those designed for 'big kids'. Most comments, however, were positive about the usefulness of the pack, with several mentioning that the associated savings had been much appreciated.

'Yes, amazing pack. A lot of info. Toothbrushes and paste - very lucky to receive this.'

'Oh yeah, lots of brushes, toothpaste. Saved us from buying them.'

'Aware of product necessary for personal care, taking ownership and responsibility for caring for their products.'

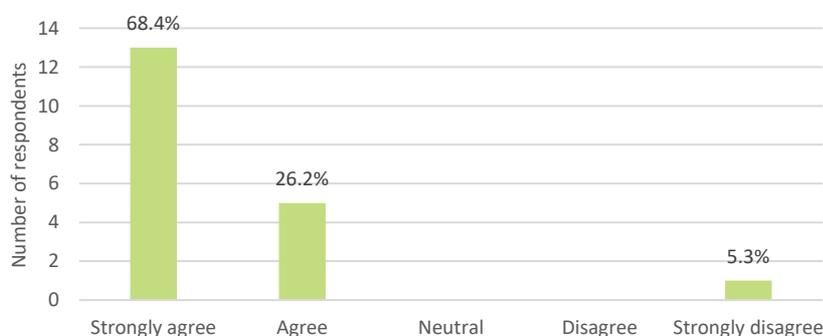


Figure 13: The whānau pack has been useful (n=19)

The next question asked whānau if tamariki had talked about the toothbrushing programme at home. Of the 16 who responded to this question, the majority (81%) agreed (Strongly agree 5; Agree 8) that their tamariki had talked about the programme with them, and three selected the neutral response (Figure 14). Most of the 10 free-text comments further qualified a ‘yes’ or similar response with such comments as,

‘Absolutely, openly discussed.’

‘Yes, novelty brushing with kids at school.’

‘Showing off to whānau. Quite proud.’

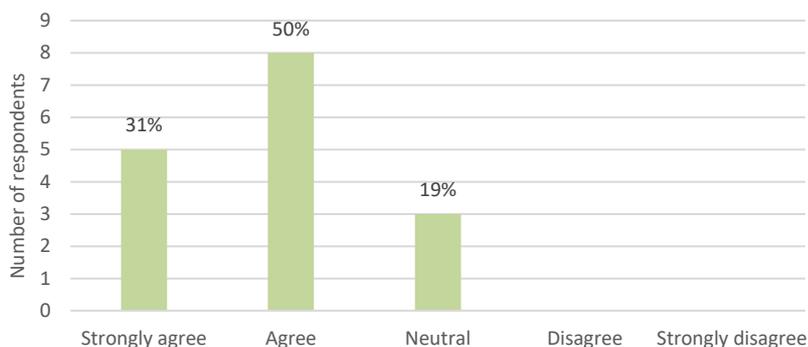


Figure 14: Our tamariki have talked about the toothbrushing programme at home (n=16)

When asked if the programme had helped tamariki to brush their teeth at home, the majority (88%) agreed that this had been the case (Strongly agree 8; Agree 7) (Figure 15). Two respondents disagreed, but this may be because they considered that they already had strong routines in place. Of the 11 respondents who offered free-text comments, most were a simple affirmative such as ‘yes’ or ‘definitely’, but others had further qualified their comment, reporting that the toothbrushing programme at kura had helped to ensure that toothbrushing at home was reinforced and more routine.

‘Doesn't like doing teeth at home, she forgets. Well ... mum forgets. Child becoming more aware of toothbrushing and its benefits.’

‘Helped him set into routine. Even though he hates it.’

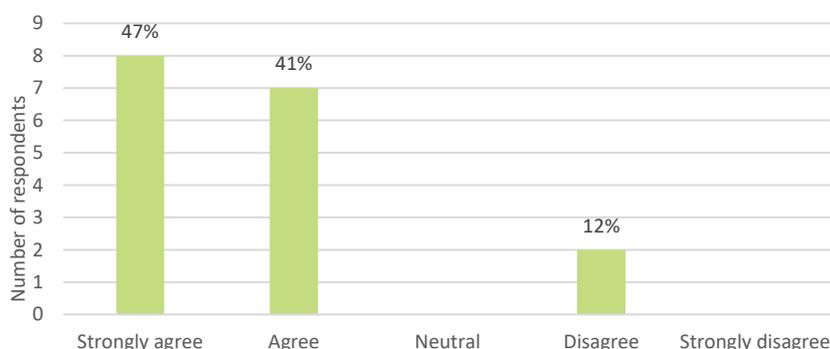


Figure 15: The toothbrushing programme has helped our tamariki brush their teeth at home (n=17)

All respondents agreed that the programme should become an ongoing part of each day at the kura (Strongly agree 12; Agree 5) (Figure 16).

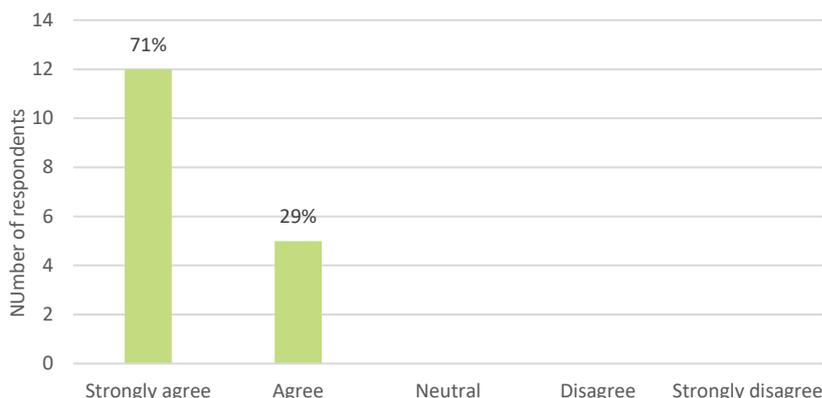


Figure 16: The toothbrushing programme should be an ongoing part of each day at our kura (n=17)

Eleven free-text responses added support for the programme with respondents agreeing that reducing tooth decay as well as building habits and confidence in tooth brushing was beneficial.

'If practical and making an impact on their oral health.'

'Yes, to help children, and good for children to realise how important it is to look after their teeth.'

'Encourages all to brush teeth more regularly...group interaction supports child to do as others are doing.'

'Good routines initiated through this programme. Would be ludicrous not to continue.'

The final question invited whānau to add any other comments they wished to make about the toothbrushing programme. Seven respondents offered a comment. Generally, respondents expressed appreciation for the programme with one respondent noting their child's increased brushing confidence, and another that it can be tricky to establish routines when moving between different households. One respondent reported preferring to provide their child's toothpaste, whilst another respondent noted that their child had liked the minty taste of the toothpaste provided.

'It is strongly welcomed.'

'If not picking up in home, getting picked up in school.'

'Good and positive step to support great personal hygiene.'

'Nga mihi kia koutou katoa.'

Summary

The survey findings from each respondent group – kaiako, tamariki and whānau – were overwhelmingly supportive of the toothbrushing programme. Both kaiako and whānau respondents agreed that the toothbrushing programme should remain as an ongoing part of the school day.

Kaiako appreciated the evidence base for the programme, had found the programme manual easy to follow, and had valued the support offered by the toothbrushing programme pilot team. They also reported that they had managed the practical aspects of the programme with ease and felt that their

students had adapted well to the programme and managed themselves well during the toothbrushing sessions.

All tamariki who answered the junior survey selected the most positive answer option (smiley face) when asked how they felt when it was time to brush their niho/teeth at school. In addition, all offered a positive comment about the toothbrushing programme – these comments mainly focused on the toothbrushes, the toothpaste, and how they liked brushing their teeth.

The majority of students who answered the senior survey were also positive about the toothbrushing programme with most students agreeing that the programme was going well and that they liked brushing their niho/teeth at school. Most students also agreed that brushing their teeth at school helped them remember to brush their teeth at home. Students responding to the senior survey also offered some improvement ideas, including some practical suggestions.

Those responding to the whānau survey were overwhelmingly supportive of the programme, had appreciated the whānau pack and reported that their tamariki had talked about the toothbrushing sessions at home. They also agreed that the programme had helped their tamariki to remember to brush their teeth at home.

For consideration

Analysis of the free-text comments made by kaiako, tamariki, and whānau respondents resulted in a number of suggestions for consideration. These suggestions may prove useful in informing not only the day-to-day running of the programme at the kura, but also any plans to implement the programme more widely in education settings in South Canterbury.

- Ensure panui and hui introducing the toothbrushing programme are widely socialised.
- Ensure information about the evidence base for the programme – including the importance of fluoride toothpaste to the programme’s success – are widely available to all in the community.
- Consider supporting education settings to develop a policy/procedure (including a dedicated timeslot) to help embed the programme and ensure programme longevity.
- Check in with students who are uncomfortable brushing their teeth with others – consider offering a more private option.
- Seek advice on how best to support toothbrushing for those students experiencing ongoing discomfort (e.g. bleeding of gums/pain) when brushing.
- Explore options for the provision of running water, separate sinks, different toothpaste flavours, and ‘better’ labelling of toothbrushes.
- Explore options for enhancing the programme’s home-school links, particularly for tamariki moving between households e.g. consider offering a whānau pack per household.

