



## Evaluation of the pilot TAPUAKI Pacific pregnancy and parenting education programme.

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### ABSTRACT:

**Background:** The TAPUAKI programme aimed to improve Pacific women's, their partners and families' knowledge and confidence about pregnancy and parenting so they can make informed choices about their health and that of their infants. The programme consisted of six two-hour blocks of antenatal classes run over six consecutive weeks.

**Aim:** To evaluate the TAPUAKI programme for the effectiveness and delivery of its curriculum to pregnant mothers.

**Methods:** Both paper survey questionnaires and focus group interviews were used for the evaluation. Of 32 participants who attended the TAPUAKI programme, 13 agreed to take part in the evaluation (a response rate of 41%). There were three sites from Auckland, New Zealand (from 2013-2014) where the programme was piloted: Henderson, Onehunga and Otara. The 13 participants were Samoan, Cook Islands Māori or Tongan ethnicity, all aged between 17 and 40 years old. In addition, there were two female facilitators at each site who delivered the curriculum. All six facilitators agreed to take part in the evaluation.

**Findings:** Participants reported that their knowledge about pregnancy and parenting had increased as a result of the programme. Specifically, these topics were nutrition, giving birth, breastfeeding and safe sleeping practices. The programme helped to change some incorrect practices and beliefs that were held by those participants who already had children.

**Conclusion:** The women in the TAPUAKI programme were positive about it and felt there were benefits to it.

**Key Words:** Pacific, pregnancy, maternal health, antenatal education, parenting programme

### BACKGROUND

Pregnancy and parenting education typically referred to as 'childbirth education' or 'antenatal education' is a key component of antenatal services. Health professionals consider it to be integral to successful pregnancy and birthing experiences.<sup>1</sup> The evidence suggests that women who attend antenatal education have "less false labour admissions, less anxiety and greater partner involvement" than those who do not;<sup>1</sup> although they also have more labour interventions such as labour induction and epidural use.<sup>1</sup> Nevertheless, the benefits of antenatal education remain largely unknown.<sup>2</sup>

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Received: 19.06.2016; Published: 30.12.16

Citation: Gentles D, et al. Evaluation of the pilot TAPUAKI Pacific pregnancy and parenting education programme. *Pacific Journal of Reproductive Health* 2016; 1(4):180-187. DOI: 10.18313/pjrh.2016.913

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The effects of antenatal education are dependent on a number of factors: namely, the characteristics of the people attending the classes, the skills of the educator or teacher and the programme objectives.<sup>3</sup> The teacher's cultural knowledge and understanding of the population being served is also important.<sup>4</sup>

In 2013, Pacific people made up 7.4% (or 300,000 people) of the New Zealand population (4.2 million).<sup>5</sup> They are the fourth largest ethnic group behind European (74%), Māori (14.9%) and Asian (11.8%).<sup>5</sup> Samoans make up roughly half of the Pacific population followed by Cook Islands Māori (21%), Tongan (20%) and Niuean (8%). Also, Pacific have the highest proportion (35.7%) of children (aged 0 to 14 years) of any ethnic group (compare European 19.6%).

Almost two-thirds of Pacific people were born in New Zealand. Most live in New Zealand's largest city Auckland (66%) and 12% in Wellington the capital city, meaning at least 80%-90% live in an urban setting.<sup>5</sup> Only 7.1% of Pacific live in the South Island, with most settling in Christchurch (12,723 or 4.3% of all Pacific people).<sup>5</sup>

Except for having some famous sports people, Pacific people remain a largely marginalized group within New Zealand. Their median income is the lowest of any ethnic group in New Zealand and they have a high unemployment rate along with Māori the indigenous people of New Zealand (**Table 1**).<sup>6</sup> Furthermore, Pacific people have many adverse health indicators including high smoking, obesity and hazardous drinking rates relative to European New Zealanders (**Table 1**).

Pacific peoples in New Zealand have poor uptake of antenatal education.<sup>7, 8</sup> The limited research indicates that less than 1% of participants attending childbirth education in 2009 were of Pacific ethnicity.<sup>7</sup> This is despite Pacific peoples' comparatively higher birth rate than for all other ethnic groups.<sup>9</sup> The reasons for Pacific peoples' low engagement in antenatal education are not known. Little research has been conducted in this area. However, that most antenatal education courses in New Zealand are delivered by non-Pacific peoples, with variable knowledge and understanding of Pacific cultural beliefs<sup>8</sup> may help to explain this. Similarly, the findings that social, financial and cultural factors hinder Pacific women's access to, and use of, maternity services generally.<sup>10</sup> These include their lack of understanding of the importance of antenatal care, language issues, a lack of transport, lack of family-based care and competing family priorities.<sup>10</sup> Antenatal programmes that are

attractive to this group and meets their specific needs are considered a priority.<sup>7,8</sup>

**Table 1:** Pacific Indicators

	Pacific	Māori	European
Median Income (2013)	\$19,700	\$22,500	\$30,900
Unemployment rate (2013)	15.8%	14.1%	5.3%
Smoking* (current) (2015)	24.7%	38.1%	16.6%
Obesity* (adults) (2015)	66%	46.5%	30.7%**
Hazardous drinkers* (2015)	23.4%	32.4%	17.7%**

\* Ministry of Health. 2015. *Annual Update of Key Results 2014/15: New Zealand Health Survey*. Wellington: Ministry of Health. \*\* All New Zealand.

Developed by TAHA Well Pacific Mother & Infant Service the TAPUAKI Pacific pregnancy and parenting education programme ('the TAPUAKI pregnancy and parenting programme', 'the programme') aimed to improve Pacific peoples' access to, and participation in antenatal education by alleviating some of the noted social, financial and cultural barriers. Launched in June 2013, the programme involved evidence-based and culturally relevant curriculum, materials and delivery strategies to support increased Pacific engagement and participation in antenatal education.<sup>8</sup>

The TAPUAKI pregnancy and parenting programme was piloted between November 2013 and April 2014 in three sites in the Auckland region to test its effectiveness in improving pregnant Pacific women's their partners' and families' knowledge and confidence about pregnancy and parenting. This was so any changes to support improved programme effectiveness could be made prior to the wider implementation of the programme. The pilot sites were across the Auckland urban region where two thirds of Pacific people in New Zealand reside: Onehunga in the Auckland District Health Board region; Henderson in the Waitemata District Health Board region; and Otara in the Counties Manukau District Health Board region. The key programme was developed in October 2012 and piloted in

November 2013. The programme included six modules and an introduction model. It was delivered over six weeks by facilitators and each session was approximately two hours long. The evaluation was undertaken approximately one month following each pilot.

The facilitators used a “buddy” approach to teaching, which is sharing content and cultural knowledge and expertise with the participants. This was of particular importance for those women who had strong cultural beliefs on pregnancy and parenting; limited awareness on “western thinking” in relation to this; were recent arrivals to New Zealand; or had limited English proficiency. In addition, it was the facilitators’ cultural knowledge and expertise that facilitated the selection of the relevant content and delivery methods (talanoa, personal stories and experiences). This, together with their warm, engaging and positive personalities positively influenced the women’s engagement and participation in the programme, and ultimately achievement of the outcomes.

The aim of this research was to determine the effectiveness of the programme in increasing pregnant Pacific women’s knowledge and confidence about pregnancy and parenting.

## METHODS

### Evaluation Methodology

The adapted Center for Disease Control (CDC) and Prevention ‘Framework for Program Evaluation in Public Health’ was the conceptual framework used for this evaluation. The CDC framework describes the criteria an evaluation must meet in order to be effective, and meet the needs of the stakeholder groups. It is characterised by a continuous learning model, and includes participation and collaboration by stakeholder groups throughout the evaluation process.<sup>11</sup> This framework has been adapted for use with Pacific groups in the New Zealand context to ensure its cultural appropriateness.<sup>12</sup>

The adapted CDC framework was underpinned by the adapted Kakala model<sup>13</sup> to facilitate a richer understanding of the evaluation concepts within a Pacific context. Based on Helu-Thaman’s work,<sup>14</sup> the adapted Kakala model uses symbolic language to describe the evaluation process in a way that is meaningful for Pacific peoples. The adapted CDC framework and kakala model have

proven effective and culturally appropriate for process and outcome evaluations of Pacific interventions.

### Pacific talanoa methodological design

A Pacific talanoa methodological design was used to obtain a comprehensive understanding of the effectiveness of the TAPUAKI pregnancy and parenting programme. As noted in the preceding section, the Pacific talanoa methodology uses narrative to understand the truths and meanings of the social world. It is a conversation, a discussion whereby researchers (evaluators) and participants bring themselves, their past experiences and future aspirations, to engage holistically in an interactive and collaborative dialogue process.<sup>15, 16</sup> This involves creating and facilitating a ‘space’ and conditions for participants to share, question, challenge and re-think their views of the world.<sup>16</sup> This sharing of stories was considered crucial for understanding participant views and perceptions in relation to programme effectiveness, and the enablers and barriers influencing its success. By ‘enablers’ are meant any resources (including people) that empower a person to take positive action.

### Questions asked by the Facilitators

**Table 2** shows the questions that participants were asked.

**Table 2:** Questions given to participants for the effectiveness of the TAPUAKI programme

<b>PART A: Effectiveness of the Programme</b>
<b>Personal experience</b>
1. How useful did you find the programme and the information/materials that were shared? And why/why not?
2. Which topics in particular did you find useful? And why/why not?
3. Which topics did you find not as useful? And why/why not?
<b>Enablers and barriers</b>
4. What were the ‘good things’ about the programme?

5. What were the 'not so good' things about the programme?
<b>Improving effectiveness</b>
6. What changes are needed to make the programme better?
Any other thoughts or comments?
<b>PART B: Effectiveness of programme delivery strategies</b>
7. What were the 'good things' about how the programme was run?
8. What were the 'not so good things' about the way in which the programme was run?
9. What were the 'good things' about the facilitators, and the way in which she/he delivered the sessions?
10. What were the 'not so goods' things about the facilitators, and the way in which she/he delivered the sessions?
11. What changes are needed to make the programme delivery better?
Any other thoughts or comments?

## Data collection procedures

### Participants

The participant data was collected via two talanoa (focus group discussions). One of the TAPUAKI facilitators made the initial approach to all potential participants via phone calls on the evaluator's behalf. This was because of her established relationships with participants, and for privacy reasons (participants' personal information). Follow-up phone calls or texts were made to discuss the talanoa and finalise the dates, times and venues. Reminders were also sent to all confirmed participants prior to the talanoa dates.

The talanoa were held at the Langimalie Clinic, Onehunga. One session was facilitated by the evaluator, and the other by the TAHA programme manager on the evaluator's behalf. This was because of scheduling issues. The same procedures were used for both talanoa. They began with the evaluator or TAHA programme manager explaining the purpose of the

evaluation, survey and talanoa, and the ethical considerations relating to participants' participation. The direction of the talanoa was led by the participants, in keeping with the talanoa tradition.<sup>15</sup> The evaluator or TAHA programme manager only referred to the talanoa guide if a specific point was not raised.<sup>15</sup> Both talanoa was conducted in English; and recorded using an audio or video recorder. Participants were given a me'a'lofa (gift) in appreciation of their time and support. The recordings were transcribed verbatim.

### Facilitators

The facilitator data was obtained via talanoa (individual interviews). The evaluator made the initial approach to both potential participants via a letter of invitation. A participant information sheet was included. Follow-up emails were made to finalise the dates, times and venues. Reminders were also sent prior to the talanoa dates.

The talanoa were held in Botany and Onehunga. They began with an overview of the evaluation, survey and talanoa. The participant information sheet and consent form were explained, and the signed consent forms collected. The facilitators led the direction of the talanoa, in keeping with the talanoa tradition.<sup>15</sup> The evaluator only referred to the talanoa guide if a specific point was not raised.<sup>15</sup>

### Data analysis

Both sets of data were analysed using Miles and Huberman's qualitative thematic approach and procedures.<sup>17</sup> The data was coded separately by stakeholder group, and according to construct (programme effectiveness, enablers, and barriers). The data was sorted and examined by construct to identify key themes. The themes were coded and the data further reduced to identify the most-frequently cited themes. Preliminary conclusions were drawn and these conclusions verified by revisiting field notes and raw data to ensure verification.

There were 13 female participants who agreed to take part in the evaluation. Of these, 7 were Samoan, 4 Tongan and 3 Cook Islands Māori. They ranged from 17 to 40 years old. All 6 facilitators took part and were either Samoan or Tongan ethnicity except for one who was non-

Pacific. The participants attended 3 different sites (5 at Henderson, 3 at Onehunga and 6 at Otara). Nearly all the participants were pregnant (except for one support person) and all had little or no previous antenatal education. The response rate was 41% (13 participated out of 32 persons invited).

## FINDINGS

### Increasing knowledge

The participants reported that their knowledge about pregnancy and parenting had increased because of the programme. They increased their knowledge on key topics such as being healthy during pregnancy, giving birth, breastfeeding and safe sleep than they did prior to attending the programme. This feedback was consistent across the group, regardless of whether they were first-time parents or already had children.

*...taking these classes... really educates you on things... like just giving birth... sleeping on your left side, and like how to bath your baby... To me, it [the programme] was really educational... You learn new things that you didn't know before... It just helps you to be a healthy mother... it was the best class I ever took.*

- Onehunga Woman

The facilitators also felt the participants' knowledge about pregnancy and parenting had increased as a result of the programme. They believed the participants' ability to recall key learnings from previous sessions and discuss key learnings at length demonstrated this.

*They [participants] said it [the programme] was really helpful... that they had learnt a lot... But you could also tell... in the preview from the past classes... because they remembered... and shared what they had learned...*

- Onehunga Woman

### Increasing confidence

The participants reported that they felt more confident about pregnancy and parenting because of the programme. This was not only because of the breadth and depth of the information they had learnt – including the “good and bad things” - but also the positive impact the facilitators had had on their self-

esteem. As one participant noted, they (the participants) were treated like “VIP”, with everything focused on them and meeting their needs. Examples included the facilitators and nurses making them snacks and cups of tea, listening to what they had to say, and being positive and supportive. The participants enjoyed being “treated nice”, and believed it helped build their confidence.

*She [lead facilitator] makes you feel like you can open up to her... someone you can trust and ask anything personal about being pregnant... you're not shy to hold back and say “Ah, nah. I don't wanna ask her that... I might sound dumb... I'm not comfortable...”*

- Onehunga Woman

Some participants felt so confident that they were now sharing what they had learnt with their family and friends – even if the information challenged their “island myths and beliefs” on pregnancy, childbirth and parenting. Educating their family and friends so that they can make better decisions about their health and that of their babies was important to these participants.

*Like when you go home, you take that information and you share it with your cousins... They're already mothers, but they didn't know little things like “do you know you should sleep on your left because, you know...” So you educate them... Anything you get, you like to tell your family or your friends so they know... And it's exciting! And it's useful information.*

- Onehunga Woman

The facilitators also believed the participants felt more confident about pregnancy and parenting because of the programme; and for the same reasons as those expressed by the participants.

### Course Topics

The participants considered the relevancy of the topics covered in the programme sessions an enabler. Everything they had wanted to know about pregnancy, childbirth and parenting was covered in the sessions.

*Everything was important and useful.*

- Henderson Woman

The topics participants found most useful were labour (giving birth), what happens post-delivery, breastfeeding and the “brain one” showing the effects of alcohol and smoking during pregnancy on a child’s development. This was also consistent across the group, regardless of whether participants were first-time parents or already had children.

The facilitators considered the prescribed nature of the programme curriculum to be an enabler. The topics and information to be covered each week were clearly set out. All they had to do was ensure the information was communicated in a way that was appropriate and understandable for the participants.

*We were completely green [in delivering antenatal education]... it [the curriculum] was easy to follow; and we just talked to how it was prescribed in the curriculum.*

- Henderson Facilitator

### Medical and cultural based content

The medical and cultural-based content in the sessions was considered an enabler by the participants. The cultural content acknowledged their cultures and the different beliefs they held in relation to the topics covered. The medical-based content, on the other hand, helped explain “things” their cultures and cultural beliefs did or could not. This was particularly in relation to how to care for themselves and their baby during pregnancy, the labour process; and what they (the pregnant women), their partners and families could do to ensure positive birthing and parenting experiences. “Both sides” (of information) were considered crucial by the participants for increasing their knowledge about pregnancy, childbirth and parenting; and their confidence in these areas.

*... the cultural and medical beliefs was pretty interesting, because most of us we actually believe our culture instead of going to the medical understanding. So I reckon that was pretty good.*

- Otara Woman

### Personal Relationships

The personal relationships established within the group were considered an enabler by the participants. They felt confident and able to ask

questions and share their personal stories or experiences of previous pregnancies because of the relationships they had developed with the other participants in the group. For some participants, meeting and getting to know the other participants was a highlight of the programme.

*It's really good... you get to know the other ladies...*

- Henderson Woman

### The Facilitators

The participants believed the facilitators were an enabler. They had “lots of experience and knowledge” on pregnancy, childbirth and parenting. They also used basic, simple language to explain things; and if the participants did not understand what was being conveyed, they kept simplifying and explaining things until they did.

*... they [health sector] have those words we don't understand... like we follow using simple English words, but they have the technical words, like kiwi words... they [the facilitators] come and explain what these words mean. Like, for 'baby' they [health sector] have the other name... and for midwife...*

- Henderson Woman

The facilitators’ warm, engaging and positive personalities were also considered key. According to the participants, it was these qualities which kept them coming back to the sessions. Their being of Pacific ethnicity meant they knew and understood what the participants’ needs were, and could communicate effectively with them in a way that was genuine and appropriate.

*It's a blessing to be a Pacific. You know in your heart what you tell people and what they need... and you make them feel so comfortable and they listen to you... We have that relationship. They can feel our love for them... and they keep coming [to the sessions].*

- Henderson Woman

One facilitator thought that the curriculum was only as good as the person delivering it:

*... the curriculum was really well planned out. But I think it's up to the facilitator (s)... on how they deliver... I think that's the*

*core thing of everything. Because you've given us the curriculum – so it's easy just to give it to them [the participants] to read word by word.... but you know, it all comes down to the facilitator and the person that's doing it, and how they gonna do it.*

- Facilitator

## Barriers

The participants felt that their husbands or partners not attending the sessions - even the one specifically scheduled for them (the fathers) - was a barrier. They felt their husbands or partners did not know or understand what was happening with them and their baby. Similarly, the participants felt they did not know what their husbands or partners were going through. Their attending the sessions was considered important for addressing these gaps.

*... we know also that not only do we hurt them, but they need to be patient at the same time... because pregnancy is not an easy thing...*

- Henderson Woman

Most of the participants felt that too much time in the sessions was spent sitting down. They recommended more "movement" and exercise be incorporated into the programme.

*... would be good one day to have class, talk about, and then another day go out and exercise together.*

- Henderson Woman

## DISCUSSION

The TAPUAKI pregnancy and parenting programme was effective in increasing pregnant Pacific women's knowledge and confidence about pregnancy and parenting. The women in the pilot knew considerably more about pregnancy, childbirth and parenting than they did prior to the programme. They also felt more confident about pregnancy and parenting because of their increased knowledge and self-confidence. This was consistent for all women, regardless of whether they are first, second or in some instances, fourth-time mothers. However, the level of change in the women's knowledge and confidence is not known because of the lack of baseline survey data.

The evaluation findings reveal that the success of the programme is dependent on a number of factors. Arguably, the most significant factor is the facilitators: their medical and cultural knowledge and expertise, ability to connect with Pacific peoples, and their personalities. It is doubtful the programme would have been as successful as it was had it been delivered by facilitators who did not have this knowledge, skills-sets and personalities. This finding is consistent with the views expressed by Enkin and colleagues.<sup>3</sup>

Another key factor is the characteristics of the participants. This programme was all of the women's first experience of antenatal education, including those who already have children. Most of them also had limited proficiency in English. Thus, the targeting of the programme to achieve optimal outcomes was relatively straightforward. The personal relationships established amongst the women, and the willingness of those who were already mothers to act as "mentors" for the first-time mothers also contributed to the programme success. It is doubtful whether the programme would have been as successful, had these "mentoring" roles and relationships and roles not been encouraged and supported.

The prescribed nature of the programme curriculum is another key factor, albeit for the facilitators only. The curriculum clearly sets out the aims and objectives for the programme and individual modules (sessions). As noted in the findings section, this was of particular importance to the facilitators in this pilot because it was the first time either of them had delivered antenatal education. However, as also noted, the curriculum is a guide only, with facilitators required to develop their own lesson plans, resources and activities - which they considered a barrier to programme effectiveness.

Other key factors include the relevancy of the content for participants; and the use of appropriate delivery methods such as visual demonstrations, activities and talanoa (interactive discussions, sharing of stories) so participants can "see" what is being communicated, and share, question, seek clarification, challenge and re-think their views - a process consistent with the Pacific talanoa methodology.<sup>15, 16</sup> As noted, the presence of these factors was dependent on the facilitators: their cultural knowledge and understanding of Pacific

peoples and “what works” for them; and their ability to connect with this group in a way that is appropriate and meaningful for all involved. Learning from others within the group (vicarious learning) is also a key enabler. However, there is evidence to suggest that such learning is not always positive as participants may learn negative behaviours.

The evaluation findings also suggest that consideration needs to be given to a number of factors to enhance programme success. One is the programme target audience and focus. Extending the programme to Pacific peoples’ pre-conception could potentially support improved maternal and infant outcomes, by increasing peoples’ knowledge and behaviour earlier in the ‘life cycle.’

Structured lesson plans for each module, with supporting resources and activities is another factor that requires attention. This is considered crucial, given the variability in experience and expertise amongst facilitators. These plans will help to ensure consistency in the messages that are communicated. They will also support monitoring and evaluation activities.

The weighting given to some topics such as pain relief and “high risk” conditions is another factor that requires review. While these aspects are important, they are primarily the domain of lead maternity carers and doctors. This programme should focus on other, more positive aspects. How to get husbands or partners engaged and involved in the programme so that their knowledge about pregnancy and parenting is increased; and the financial and personal (time) cost of preparing the food (catering) for the sessions are other factors that require consideration.

The presence or lack of these factors influence the success of the TAPUAKI pregnancy and parenting programme and the women’s knowledge and confidence about pregnancy and parenting. Not surprisingly, the facilitators did not think the programme would have been as successful had it been facilitated by people who were not of Pacific ethnicity.

Our study has several limitations, it only involved a small number of participants, so there may be differences between those who participated in the study and those who chose not to – introducing bias. Another limitation was that the Facilitators were commenting on

themselves and may have given answers that exaggerated the success of the programme.

## CONCLUSION

The women in the TAPUAKI programme were positive about the programme and felt there were benefits in it.

## ACKNOWLEDGEMENTS

We would like to acknowledge the Well Pacific Mother and Infant Service team, and the pregnant Pacific women and facilitators of the TAPUAKI programme for their collaboration in this evaluation.

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