

A 'water only' school nutrition policy: impetus, implementation and impact – views from the Principal

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ABSTRACT

Introduction: Yendarra primary school is located in Ōtara Auckland, New Zealand and is comprised of Pasifika and Māori students aged from 5 – 11 years old. The school is notable for its prioritisation of nutrition in its curriculum and policies.

Methods: Here, we describe the reasoning for, implementation of and impacts of the policy from interviews of staff. Implementation of the 'water-only' policy in 2006, was primarily to address behavioural problems. Almost immediately, significant improvements in behaviour were observed.

Findings: Following this positive experience, school leadership then focussed on improving school nutrition. Initially, most students did not bring lunch or brought unhealthy processed foods. The leadership team undertook a process including clearly communicating with the school community, using positive reinforcement, valuing student agency, and role modelling preferred behaviours to promote water-only and healthy-kai (food) practices in the school.

Conclusion: This enabled a transformational change in the school and communities' values and culture where water and *healthy kai* became a norm. Fifteen years on the benefits of these policies are wide-ranging, including improved behaviour, better achievement, happy students, better oral health and improved well-being.

Key words: water-only, school nutrition

INTRODUCTION

Yendarra primary school is located in Ōtara Auckland, New Zealand and is comprised of Pasifika and Māori students aged from 5 – 11 years old. The school is notable for its prioritisation of nutrition in its curriculum and policies. Here, we describe the reasoning for, implementation of and impacts of the policy from interviews of staff. Implementation of the 'water-only' policy in 2006, was primarily to address behavioural problems. Almost immediately, significant improvements in behaviour were observed. Following this positive experience, school leadership then focussed on improving school nutrition. Initially, most students did not bring lunch or brought unhealthy processed foods. The leadership team undertook a process including clearly communicating with the school community, using positive reinforcement, valuing student agency, and role modelling preferred behaviours to promote water-only and healthy-kai (food) practices in the school.

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What do we already know about this topic

Policy for water-only school's is promoted by both Ministries of Education and Health due to the benefits it can have in improving oral health, concentration and energy levels, as well as reducing risk of unhealthy weight, type 2 diabetes and reducing absenteeism. Despite the government recommendation for this policy most New Zealand schools do not have water-only policy.

How does your research contribute to the field?

This paper details insights of the principal and deputy principal regarding the impetus for a water-only policy in a primary (elementary) school in New Zealand. It also describes how the policy was implemented highlighting challenges and enablers that influenced the process, and finally describes the impact of the policy.

What are your research's implications towards theory, practice, or policy?

This paper provides detailed information that can inform how a school can work together with its staff, students and community to implement a water-only policy. Further, considering the benefits of the water-only policy - this paper raises the notion as to whether such policy should be mandated rather than recommended by government ministries to increase uptake.

This enabled a transformational change in the school and communities' values and culture where water and *healthy kai* became a norm. Fifteen years on the benefits of these policies are wide-ranging, including improved behaviour, better achievement, happy students, better oral health and improved well-being.

Nutrition in schools is an issue that has received much attention in various parts of the world.³ In New Zealand, most schools have an on-site canteen where students can purchase lunches either from a pre-defined packed-lunch menu or by selecting individual food items. The government does not subsidise lunches.⁴ In June 2008, in Aotearoa New Zealand the government introduced clause 5 into the National Administration Guidelines that required all schools 'to sell only healthy food and beverages.'⁵ The 2008 legislation saw high sugar soft-drinks along with other unhealthy foods removed from school canteens. However, following the 2008 election, the newly appointed government revoked this clause as one of their first policy actions, enabling the return of sugary drinks back into school grounds in 2009.⁵

In 2012, a current affairs television programme asked students in classes from two Auckland schools at opposing ends of the socio-economic spectrum to show them what they had brought to school for lunch.⁶ For students of the 'decile 10' school, all had lunch, boxes that were packed with healthy items and most (90%) had a piece of fresh fruit. In contrast, for students from the 'decile 1' school - none had a lunch box, and nearly half (48%) of students did not have any lunch. For those that did, lunch consisted mostly of unhealthy items including packets of chips, fizzy drinks and biscuits. No children had fruit. This was an unsettling example of the reality that many children faced in low decile settings. Furthermore, Teevale et al also found that Pacific students are more likely to purchase their food from school canteens resulting in higher consumption of sugary drink and high fat high sugar snack foods.⁴

However, a very different picture is seen at Yendarra school. A journey that started in 2005 has reshaped their children's nutrition for the better and started with the introduction of a Water-Only policy. The benefits of which are far-reaching - in terms of health, education and behaviour. Anecdotal reports from staff identify vast improvements in many aspects of children's health, achievement and behaviour. These accounts have been supported by research that has looked at dental health. In an observational study, Thornely et. al. compared dental records of Yendarra children with eight surrounding schools from 2007 to 2014 and found that they had significantly fewer caries.⁷

The purpose of this paper is to describe the journey that was followed to achieve this nutritional policy change and outline from speaking to staff, what changes resulted from it. Information for this paper was gathered by in-depth face-to-face interview using a semi-structured interview guide that was carried out in 2017. The interview was carried out with the school principal who oversaw the development and introduction of the water-only policy. The interview has been supplemented by existing documentation obtained from school records. To ensure that an accurate account of the journey has been described this manuscript has been reviewed and contributed to by both the principal and deputy principal of the school.

METHODS

Rationale

Located in Otara, Yendarra school caters for students aged from 5 - 11 years old. The school has a proud history of serving the local community since 1968. Otara is a suburb of

Auckland with approximately 85,000 residents. Pasifika peoples comprise the largest ethnic group of 46% compared to 15.5% for Auckland overall or 8% nationally.⁸ Otago experiences some of the highest levels of socio-economic deprivation in New Zealand as indicated using a number of standardised measures.⁹ Higher deprivation impacts levels of student transience, reports have shown the highest levels of student transience are represented in South Auckland and decile 1 and 2 schools.¹⁰ In 2019, all but one of their 293 students, identified as either Pasifika (221) or Māori (71).¹¹ In March 2005, a new principal was appointed. On day one, with a fresh set of eyes, challenges were observed by the principal that included aggressive, niggly student behaviour and 'generally unhappy children'. The principal reported having to deal with a long line of students each day outside the principal's office awaiting disciplinary action. Truancy, absenteeism, relationship problems and generally poor student well-being were also observed to be problematic. However, the most compelling observation was the great potential of the students. On day two, a visit by the principal to the school canteen found an array of unhealthy options on offer being predominantly pies, biscuits, sweets and sugary drinks.

Move to become 'Water Only'

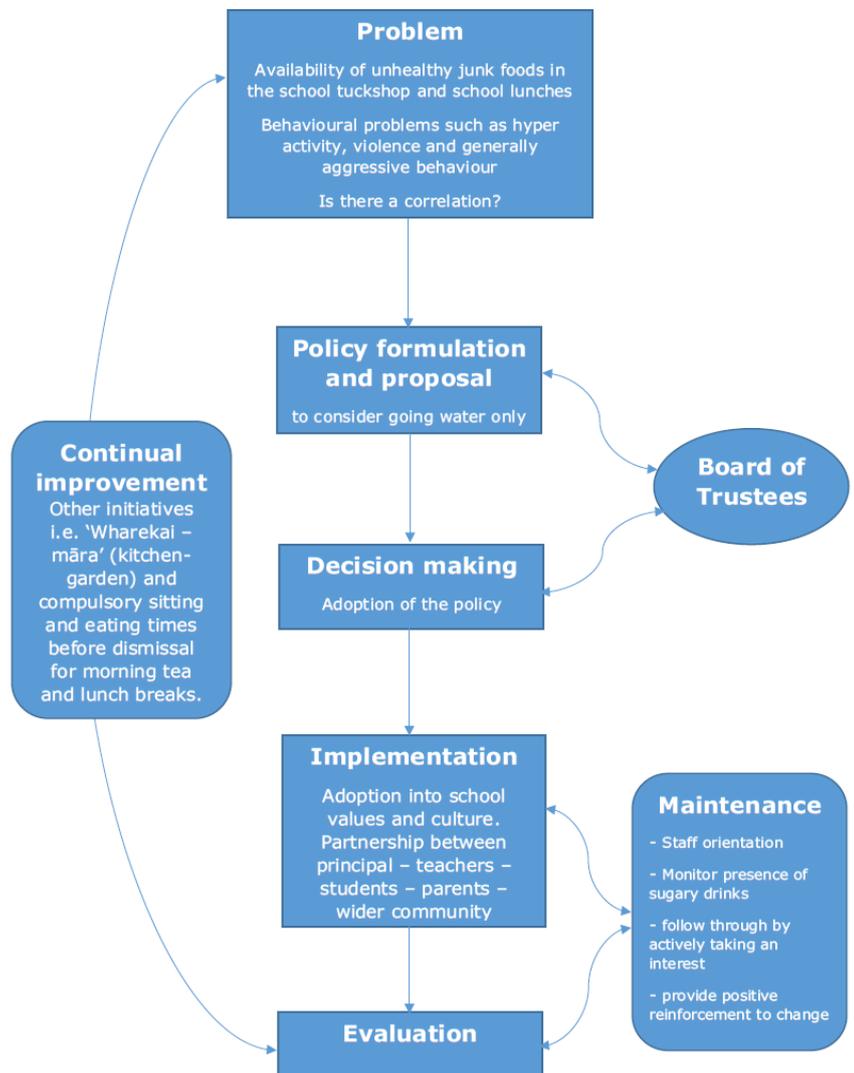
These observations by the principal prompted an approach to the school's board of trustees to request support for the school to become 'water only'. The proposal was supported by evidence-based reasons that identified the potential for this change to drive improvements in behaviour with hypothesised flow-on effects to improved student engagement and educational achievement. The board agreed in November 2006 for the school to become 'water-only', meaning that no other drink sources would be sold on site, and parents would not be able to send drinks other than water with students in packed lunches.

FINDINGS

It was anticipated that pushback relating to this new policy might occur from some parents, however, none eventuated. This was attributed to the comprehensive explanation that was communicated to parents about why the change was made - emphasising that better health and education for their children was the key driver

for the policy. Parents were supportive of the change and appreciated that the new policy was in the best interests of their children, associating

Figure 1. Flowchart of development and



implementation of nutrition policies it with showing love and care for their children. For the school, this link between the policy and 'care of the children' was thought to be crucial in earning the parents' respect and support.

A flowchart of how the policy was developed and implemented is presented in **Figure 1**.

Within the school, not all staff accepted the change initially, but like parents - once the benefits were comprehensively explained, staff supported the change quickly. If staff members didn't follow the policy, children voiced their concern at an apparent double standard. Teachers quickly learned to accept that they too had to model these new expected behaviours if they were to expect the children to follow them also.

The reasons for the policy were well communicated to students who adopted the change happily. All students were given a water bottle to mark this change and overnight the school became 'water-only'. When on the rare occasion a student brings a sugary drink or juice to school, it is looked at as an opportunity to positively provide education and awareness as to the reasons for the water-only policy.

Many parents and teachers have commented on the influence children have had on reinforcing this message and establishing a new norm at home making water displace sugary drinks.

Maintenance

Since adopting the water-only policy several factors have emerged and have been embedded to support and maintain this policy which is now a firm part of the school's values and culture. New learning modules were developed to enable students to explore the impacts that sugar/y drinks have on health (teeth, metabolism, learning). This local curriculum is linked to the core curriculum and integrated into teaching and learning for all students. These learnings have led to the composition of a school song that encapsulates these values in a culturally relevant way. The song is called 'Water is best for our brains and bodies'.¹²

Due to high student transience,¹⁰ messages around the water-only policy are regularly communicated to new children and parents. For new teachers the 'water-only' policy and the importance of positively role modelling the behaviour is explained as part of the formal staff orientation.

DISCUSSION

Challenges

Some external challenges have and continue to be observed. There was, and still is concern that these challenges could disempower the school, the children and parents to some degree.

In the media, there was and continues to be intermittent coverage of socioeconomically deprived schools having a raft of problems including unhealthy nutrition.¹³ In the political arena, there was and continues to be commentary regarding the need to focus on and 'fix' economically poor areas and the schools that serve these communities. This commentary focusses on problems rather than solutions.

In response to ongoing issues associated with economic poverty and its impact on the health and wellbeing of children, in 2019 the New Zealand government initiated and funded an opt-in school lunches program that provides free lunches for students in schools from low socioeconomic communities.¹⁴

When parents at Yendarra School were presented with this opportunity, there was unified agreement to not be part of this scheme. Parents felt it was their responsibility to provide healthy lunches for their children and took pride in doing so. It was felt that the 'School lunches programme' ignored the strength, tenacity and potential of any school and its community to find their own solutions. Staff described that the decision of parents to continue providing lunch for their children empowered them more and increased the resolve of the school's leadership to continue to promote positive change in the community.

Consequences

As immediate as the change to becoming 'water-only' in 2006, (practically overnight), so too were the noticeable improvements in children's behaviours, learning, concentration, and physical health. Teachers observations identified that students became more engaged in class, and as a result their achievement in all aspects of their learning improved. Anecdotal reports acknowledge increased achievement in formal academic learning, cultural learning, sport and athletic endeavours and attendance. To support these observations a study found that Yendarra children had significantly better oral health compared to the neighbouring eight schools when assessing dental records.⁷ This study looked at dental records that spanned the seven-year period following the introduction of the water-only policy from 2007-14. Another interesting observation by staff was a steady and gradual reduction in demand for the two largest sizes of school uniform. Staff report that these sizes are very rarely required today.

Staff have described students as being peaceful and that they have well-being or Hauora that can be seen as the students 'shining' from within or having a 'glow'. Again, this may sound difficult to imagine and one cannot truly appreciate it unless a visit is made. The children themselves are the best endorsement of the benefits of a 'water-only' policy.

The greatest strength that emerged from this initiative and what was not considered at the start of the process to become 'water-only' was the huge amount of support from family and whanau who rallied behind this measure.

The move to 'Healthy Kai'

Not long after becoming 'water-only' and with the benefits being quickly noticed, school leadership then considered how students' lunches could be improved. The situation at Yendarra regarding lunches in 2006 was similar to what was observed in the 2012 current affairs programme described earlier. Most children did

not have a lunch box and most did not bring lunch to school. Lunch for those who did consisted of packets of chips, biscuits, cake, sweets and mainly processed pre-packaged foods. There was a noticeable absence of fruit.

There was no ritual around eating lunch. When the lunch bell rang children that did not have lunch would run to the playground to play. For those children who did have lunch, they opted to not eat their lunch preferring to join their friends on the playground also.

To address this distraction compulsory eating times and an eating ritual was introduced into the school day where children (regardless of whether children had brought lunch) had to sit down together to eat. Designated eating times were 11:00 – 11:10am for morning tea or commonly referred to as 'kai time' and at the beginning of the lunch interval from 1:00-1:10pm and always started with a karakia (prayer). For those children who did not bring any food for morning tea or lunch, teachers would positively encourage them to bring something for the next day. Teachers would also acknowledge and celebrate the efforts of those students (parents) who did bring in food and talk about the healthfulness of particular foods. Positive reinforcement was the most useful tool that slowly but surely brought about significant change. These changes were not as immediate as was seen with water and drinks and initially lunches were not the healthiest. However, over time and with an eating ritual set in place and teachers positively reinforcing and celebrating efforts of children and parents significant change occurred.

It is important to note that role modelling from teachers was again important. Many children were keen to discuss the contents of their lunch boxes with teachers and were interested to see and discuss what the teachers had brought for their lunch.

Children were soon able to critique their own as well as their friends' lunches. At the start of this process teachers were not concerned what lunches were brought to school as the initial goal was to encourage children to develop the habit of bringing lunch to school every day. Teachers would reward those students who brought lunch in especially if they brought in a new and particularly healthy-looking item. During the first year of this initiative lunch boxes were given out as prizes to students who had been regularly making the effort to bring in their lunch. In that first year approximately 25-30 lunch boxes were awarded to students to acknowledge their efforts.

These efforts were also promoted through the school newsletter. A photo of the winning lunch would be included as part of the regular school newsletter that was sent home to parents and posted on the school website.

A 'Ka Pai' (well-done) certificate was created and awarded to students who had been making noticeable efforts. The winner would also receive a loaf of whole grain healthy bread to take home and share with their family to recognise the great job they were doing.

The use of positive reinforcement and opportunity for children and parents to see healthy lunches and acknowledging these efforts with awards and in school newsletters allowed for a cultural change in and around kai to become embedded into the school. This meant that all children would soon be bringing to school healthy kai on a regular basis that was prepared at home. Adopting student agency was essential to this change.

Continued improvement

Building on this work a new 'Wharekai – māra' (kitchen-garden) initiative was launched in 2017. This involves children digging, planting, nurturing and harvesting a number of herbs, fruits and vegetables as well as preparing and creating meals to share with each other.¹⁵ This experience has enabled children to gain a deeper understanding the value of food. It has also fostered stronger community links with volunteers who help supervise work in the garden and kitchen.

Political influence/support

In 2008, the government introduced a new clause to the National Administration Guideline 5 that required all Boards of Trustees to sell only healthy food and drink options in schools.⁵ This change in government policy positively reinforced what the school was already working towards and saw many of the unhealthy foods removed from the school canteen/tuck-shop. Later that year the contract for the school canteen/tuck-shop expired and the school opted to take back total control. Instead of using the school canteen/tuck-shop as an income stream it was run not-for-profit (run at a loss) with a focus on health. This complimented the work the school had already undertaken regarding 'water-only' and healthy lunch boxes.

The school sourced a local bakery that had an 'A' grade health rating to be a supplier and worked with them to finalise a healthy menu for the school. School preferences were met with small changes such as only using grain breads and reducing fat and sugar content to make the foods

healthier. Orders were taken in the morning and delivered in for lunch.

Both the 'water-only' and 'healthy lunch box' policies are not formally documented by the school. Rather they are embedded in the values and kaupapa / culture of the school, staff, students and community. This is more important than having a written policy that may not be adhered to.

CONCLUSION

The 'water-only' policy introduced by Yendarra school initiated transformational change in the school's values and culture. It also provided a vehicle for which the potential of Yendarra students, staff and families were empowered and enabled the community to flourish.

Critical aspects that fostered this transformational change include:

- Empowerment of individuals and communities
- Acknowledging children as change agents
- Providing clear reasoning for decisions
- Clearly and respectfully communicating to students, staff, parents, community
- Meaningful community engagement
- Valuing well-being and doing the very best for our children
- Pursuing a strengths-based approach
- Enhancing mana (honour) of children, parents, staff and communities
- Positive reinforcement
- Dedication to maintenance of cultural values
- Acknowledging it is essential to role model behaviour
- Written policy is less important than embedding the right values and culture to affect practice

The factors above together with the determination and drive of initially a few and grew to encompass an entire community, has resulted in amazing social, physical and educational change. This change has broadened existing values and culture to include the importance of how school nutrition (drinks and kai) is critical to well-being. Although there is objective evidence to show improved dental health⁷ in this school the anecdotal accounts described here that refer to improved behaviour, achievement, healthy weight and general well-being would benefit from further research.

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