

# Body image and its relation to obesity for Pacific minority ethnic groups in New Zealand: A critical analysis

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**Short title:** *A critique of body image research on Polynesian groups*

**Key words:** *ethnic minority, culture, obesity, adolescents, body image, Pacific, Polynesian, New Zealand.*

## **Abstract**

*The stimulus behind most of the early investigations into Pacific or Polynesian peoples' body image, particularly those that looked to compare with Western or Westernised groups, is the assumption that Pacific peoples valued and therefore desired very large bodies, and in relation to obesity-risk, this is a problematic cultural feature to have. This may be driven by popular anecdotes which are captured in the title of one such study "Do Polynesians still believe that big is beautiful?"*

*<sup>1</sup>To the author's knowledge, no research in Pacific peoples' body image has been conducted in the New Zealand (NZ) context by Pacific researchers. This study makes a contribution to the literature gap and more importantly through an emic viewpoint. A critique of the current literature is provided below which calls into question the initial catalyst behind earlier investigations which have led to the perpetuation of particular types of body image research for Pacific groups.*

*Using mixed-methods, the specific objective of this study was to describe the behaviours, beliefs and values of Pacific adolescents and their parents, that are related to body image. A self-completion questionnaire was administered to 2495 Pacific students who participated in the New Zealand arm of the Obesity Prevention In Communities (OPIC) project. Sixty-eight people (33 adolescents and 35 parents) from 30 Pacific households were interviewed in the qualitative phase of the study. This study found Pacific adolescents and their parents did not desire obesity-sized bodies but desired a range of average-sized bodies that met their Pacific-defined view of health. It is not clear whether body image research makes any meaningful contribution to obesity prevention for Pacific people, given the cultural-bounded nature of the concept "body image" which sits at opposite ends of societal worldviews and value-systems. These differences pose substantial threats to*



*communication and understanding between obesity interventionists and all healthcare workers generally and Pacific communities.*

*For obesity interventions to be acceptable and useful for Pacific people, they must be responsive to the beliefs and desires of these communities.*

## **Introduction**

### **Obesity and Pacific groups in New Zealand**

The South Pacific region has the highest rates of obesity in the world<sup>2</sup>. New Zealand's obesity rates are the third highest in OECD rankings<sup>3</sup> with more than half of the adult population (62.7%) and approximately a third (31.1%) of children (ages 5-14 years) classified overweight and obese<sup>4,5</sup>. However, of particular concern is the higher prevalence observed in Pacific minority population groups domiciled in the New Zealand environment. The Pacific ethnic grouping comprises peoples who affiliate to South Pacific countries of origin, which includes Samoa, Cook Islands, Tonga, Niue, Fiji, Tokelau and Tuvalu islands.<sup>1</sup> Pacific adults (63.7%) and children (23.3%) have an almost three-fold higher risk of being obese compared to the general population (26.5% for adults; 8.3% for children).

Social factors are considered the most important influence on the prevalence of obesity although, despite the rhetoric in the literature, few investigations have examined the associations between socio-cultural variables and obesity-risk behaviours related to eating and physical activity<sup>6</sup>. Potential socio-cultural (or socio-environmental) determinants of obesity include social circumstances, such as economic and material wealth, but also social norms regarding body weight, body size, physical activity and eating. The disparate obesity prevalence by ethnicity in the New Zealand environment calls for socio-cultural studies to examine these factors for Pacific adolescents and their parents.

This paper outlines findings of a socio-cultural study which investigated the social norms, values or beliefs about body image. The key hypothesis was to examine whether Pacific adolescents and parents valued bigger body ideals and then explored the consequences of these ideals particularly in relation to nutritional and physical activity behaviours that may promote obesity.

### **Body image, obesity risk and ethnicity**

It is hypothesised that cultural variations in social norms regarding body weight and the importance of appearance may also be significant in translating cultural values into weight-related behaviours<sup>6</sup>. The disparate obesity levels between particular ethnic and minority groups are suggested to be linked to the differential body image between groups. The most popular in the literature are comparisons from the US between African-American women who are said to have positive feelings and are more tolerant towards fuller bodies, with adolescents desiring larger body image ideals than their white European counterparts<sup>7</sup>. The theory posits that these particular body image attitudes may increase the risk of obesity in African-American girls and women (who already have the highest prevalence rates of obesity in the US) and such body image ideals may be counterproductive to engaging in weight loss behaviours<sup>8</sup>.



Several reviews have examined the empirical evidence for a link between “African-American females” body image and their higher risk for obesity and have found conflicting results, with methodological problems, such as variant body image ideals depending on the definition of ethnicity used, the methodological tools employed, the study samples “heterogeneity and the lack of physiological data”<sup>9-11</sup>. On the other hand, there is a plethora of consistent literature on White women’s and adolescent girls body image, more than there is for men and boys, stating that high levels of body dissatisfaction amongst White European females is the social norm, with strong desires for smaller body ideals fuelling their higher rates of eating disorders like bulimia and psychological conditions like anorexia nervosa, depression and anxiety<sup>12,13</sup>.

The empirical evidence linking body image and obesity risk is lacking and little evidence exists to refute or support any influence. Some investigations into the relationship between negative body image and greater body dissatisfaction found adolescents engaged in harmful weight control behaviours that actually increased their weight over time and presented more obesity-risk<sup>14,15</sup>. Other studies suggest a positive association between weight satisfaction and positive body image with personal motivation to engage in weight-control behaviours<sup>16</sup>. For example, adolescent girls with high body satisfaction received greater environmental support to eat healthily and participate in physical activity<sup>17</sup> while adults with higher body size satisfaction engaged in more physical activity than those with lower body satisfaction, irrespective of actual body weight<sup>18,19</sup>. This suggests that positive perceptions of the body may be more important regardless of body size. This point may be essential for adolescents who have reported greater body dissatisfaction and engagement in weight-loss behaviours like dieting despite being of healthy weight<sup>20</sup>. To the author’s knowledge, no study has examined Pacific adolescent or adult body image and its affect on behaviours leading to obesity-risk within the New Zealand context.

## **A critique of body image research on Polynesian groups**

A review of literature that used Pacific samples from the South Pacific also found conflicting trends. Some studies found small body ideal differences between Pacific and Western populations<sup>1,21,22</sup>, whilst others found similar body image ideals particularly between Westerners and Pacific men<sup>3,24</sup>, Pacific women<sup>25</sup> and Pacific adolescents<sup>26-29</sup>.

One such study comparing Island-based Tongan men and women body image ideals with white European Australian men and women, found Tongan women tended to slightly underestimate their weight (by 1.5kg) while white Australian women tended to overestimate their weight by almost twice as much (by 2.3kg); while Tongan and Australian men both overestimated their weight by 1.5kg. Furthermore, Tongan men and women desired larger ideal body sizes (BMI measurements 28kg/m<sup>2</sup> and 26kg/m<sup>2</sup> respectively) than Australian European (men 24kg/m<sup>2</sup> and women 22kg/m<sup>2</sup>) but physiological measurements showed Tongans had more lean body mass and lower percent body fat at the same BMI levels compared to European Australians. The authors went further to state that “When these preferred body sizes were compared with weight categories “adjusted” to equivalent BMIs on the basis of %fat as presented in this paper, the Tongan body preferences for both females and males were reasonable and realistic”<sup>30</sup>. The authors suggesting that the Tongan’s preferred body sizes were in fact physiologically healthy sizes to prefer and attain.

Studies also found Pacific samples generally showed less pre-occupation with their bodies compared to Western counterparts, and desired functional bodies while aesthetic appeal was important for Westerners



<sup>28,31</sup>. Pollock's<sup>32,33</sup> work in the Pacific suggests beauty ideals for women were related to their gender based functionality which was based on fertility and procreation, which was particularly important for cultural systems underpinned by kinship relations. Fattening practices that took place in the Pacific for example, whereby young Polynesian women were given the choicest foods and discouraged from laborious work was part of addressing this, with attempts to preserve the fecundity and successful pregnancy and lactation of women<sup>34</sup>. A woman with body shapes that were "full-bodied", "wide hips", "strong legs" that could bear many children successfully were highly valued and deemed attractive and ideal. Interestingly, these beauty ideals for Pacific women also seem relevant for other non-Western ethnic groups<sup>10,35</sup>.

Body image trends for Pacific men and adolescent boys living in the Islands or in Western countries tended to find more agreement in body size ideals with Western men. That is, all men irrespective of ethnicity tend to rate average mesomorphic bodies as their preferred ideal<sup>23,36</sup>. Pacific men also valued functional bodies rather than attaining aesthetically pleasing bodies. For Pacific men, their bodies' functionality was related to clearly defined gender roles within traditional Polynesian societies, as the warrior, the worker, the provider, the hunter-gatherer, the fisherman, the agriculturalist, the cook, amongst other things<sup>37</sup>. Strong bodies and bodies that were a by-product of completing this work were muscular, tall, agile, robust and were therefore highly valued for men.

Despite the conflicting nature of the findings from the available body image literature on Pacific or Polynesian peoples a popular hypothesis linking body image to disparate obesity levels between Pacific and non-Pacific groups exists. Much of the literature about Pacific people and body image tested body ideals in reference to non-Pacific ideals, using non-Pacific tools, worldviews and without specifying cultural definitions of key concepts like "obesity", "body size", "big", "large", "beauty" and "health". Undertaking etic approaches to culturally bound concepts can render unfortunate misrepresentations particularly if human behaviours which look on the surface to be universal are in fact undertaken and understood for entirely different reasons<sup>35,38</sup>. On reviewing the current literature on body image and Pacific or Polynesian samples, a scientific "fact" is touted stating that Pacific people valued bigger bodies and by reference of its relation to obesity, bigger is postured as fatness or of having problematic health adverse adiposity levels. The title of such a study "Do Polynesians still believe that big is beautiful? Comparison of body size perceptions and preferences of Cook Islands, Maori and Australians illustrates this point<sup>1</sup>. The authors of this article state in a factual manner that Polynesian societies' body image ideals valued very large bodies and then referenced earlier Westerners anthropological observations as the key evidence sources. Gould's<sup>39</sup> investigations into Polynesian body image warned about the limitation of contemporary cross-cultural body image studies which have all been derived from etic Western ethnographic, osteological and biological anthropological studies.

The critical question that arises from reviewing the current literature is what is meant by the word "big" and in what way did researchers define this term. Western anthropologists made observations on cultural groups using their normative standards and referenced "bigness" against their own bodies and current cultural ideals. In this regard, early European contact observations of Polynesian groups are probably correct in describing Polynesian people as being bigger. According to Gould's<sup>39</sup> historical analysis of Polynesian body sizes, in reference to the Western observer's own body, Polynesians indeed had bigger body sizes. However, bigger in terms of stature, in terms of muscularity, in terms of robustness, in terms of shape, wider shoulders, thick mid-sections, stout legs, well-proportioned. Early observations of the people relevant to this study, from Tonga,<sup>40,41</sup> Samoa,<sup>42,43</sup> and the Cook Islands,<sup>44,45</sup> were described as "tall", "strong", "muscular", "well-proportioned" "stout", were of above average size by European standards but quite definitely that



“no evidence of obesity was observed”<sup>39</sup>. A fundamental problem exists through the use of loaded terms like “big” and “large” used in the current literature interchangeably and without care to mean “obesity” or at most, the measurable health adverse adiposity. It must also be noted that early Western observers made subjective estimations of body sizes and did not actually complete measurements of early Polynesian body sizes, by weight or by height, nor do we have evidence of the standard referent body size measurements of the observing Europeans, used to make these subjective comparisons<sup>46</sup>. To use these early estimations therefore, to conjecture an ethnic group’s contemporary body size ideals is highly questionable science.

Another limitation of historical references is that many of these early observational accounts emphasised the exceptional or the atypical “specimens” and gave insufficient accounts of the norm. Consequently, there are much more accounts describing the body sizes of Polynesians of high status or chiefly status, probably because early Westerners contact was in the company of high ranking Polynesians. In any case, Gould’s conclusions supported by others<sup>6,47</sup> stated: ...it is clear from the historical sources that the majority of Polynesian men and women (subject to an adequate diet) were of a tall stature, strongly muscled, and had robust skeletal frames compared to other populations. However, they did not have the high degree of adiposity characteristic of many contemporary Polynesian populations. The exception being those of high status, such as the royalty of Hawai’i<sup>39</sup>.

Scant early observations have gone on to state, that while high status or chiefly individuals may have bigger body sizes and one must be careful not to associate fatness with bigness as described here, the common people were considerably smaller and these atypical larger sizes were not attained for all<sup>41,42,45,48</sup>. It is the author’s understanding that current analyses that begin with statements “Do Polynesians still believe that big is beautiful?” have made an erroneous assumption, that if leaders of Polynesian groups had larger body sizes, then that would be the ideal for the masses. The supposition behind this analysis is that Western beauty ideals, body sizes included, are strongly influenced by the physical norms of the high status group in a society<sup>49</sup>. Concepts such as “beauty”, “ideal” and even the supposition that a cultural group would aspire for the body sizes of their higher classes are culturally-bound syndromes and current evidence on Pacific or Polynesian body ideals have never supported extreme obese body sizes as their ideal<sup>23-29,50</sup>. The following limitations must be noted on this current state of affairs:

There is no earlier evidence, that Polynesian people had idealised bigger “obesity-defined” body sizes for themselves. Although “plumpness” was valued, particularly for women, related to their function in traditional societies as child-bearers accountable for the continued existence and survival of the group, extreme obesity was most unlikely to have been valued *per se*, rather it was acknowledged, that large body sizes attained by chiefs were a *by product* of their high status, rather than an attained body for beauty’s value<sup>33</sup>. These chiefly body sizes therefore came to represent power, authority, *mana*<sup>2</sup>, high status or wealth<sup>35,51</sup>.

Secondly, previous studies concluded that their contemporary Pacific samples who did not choose the idealised bigger body sizes as expected, must be taking on Westernised ideals and an acculturation effect is observed<sup>23-29</sup>. The author is critical of the “taken for granted” application of Brown’s<sup>49</sup> Westernised theory of body aspirations mediated by higher classes to Polynesian or Pacific people and will address this limitation in the discussion section and in relation to the findings of this study.

Third, how do we know that Pacific populations had body image ideals at all? How do we know Pacific populations separated their physical self in their minds and made comparative judgements about it? Of what



purpose would having a body image be to peoples domiciled in South Pacific island environments?

Current empirical evidence does not answer these points with any clarity. Given the dearth of evidence and the lack of validation of some key contextual concepts, the current body of work on body image ideals about Polynesians or Pacific people must be treated with care.

The current study makes a contribution to a key literature gap in this field by testing whether these proposed body ideals exist for Pacific adolescents and their parents and whether it is a critical socio-cultural factor driving the disparate obesity rates of Pacific people in the New Zealand environment. The specific objectives of the study were to describe body image ideals, beliefs and values about body size and influences on body image. Furthermore, to test the application of these body image factors on obesity risk, the study compared the responses of obese Pacific adolescents and their parents to their non-obese or healthy weight counterparts.

## Research methodology and analysis

A mixed-methods research design including both qualitative and quantitative research methods was used. This study was an affiliated sub-study to the larger Obesity Prevention in Communities (OPIC) project. Further description of the OPIC study sample and quantitative methodology is available in other sources<sup>52,53</sup>. Given the lack of research on socio-cultural factors and obesity risk for Pacific populations in New Zealand, qualitative methods were prioritised to allow the topic to be explored in depth.

## Sample

### *Quantitative survey questionnaire*

Table 1 outlines the key demographic characteristics of the student and parent samples. Information was collected from 2495 Pacific students who participated in the New Zealand arm of the OPIC project. Analysis presented in this paper include results for obese and healthy weight students only ( $n=1518$ ). Students were surveyed at secondary schools. The questionnaire items included demographic variables, anthropometry, food and nutrition behaviours, physical activity and leisure time activities, body image and questions relating to family, home, school and neighbourhood environments. Anthropometric measurements such as weight were taken using an electronic scale (BC418 Body Composition Analyzer, Tanita, UK), and height was measured to the nearest 0.1 cm with a standard portable stadiometer.

This study compared prevalence of outcomes between comparison groups, which is appropriate for cross-sectional studies. Chi-square tests were used to determine the relationship in comparisons involving two variables and statistical significance was set at  $p<0.05$ . Statistical software SAS (v 9.1, SAS Institute Inc., Cary, NC, USA) was used to generate results. The Mantel-Haenszel method was used to adjust comparisons for possible confounding from covariates.



**Table 1: Interview participants sample demographic variables**

Demographic variable	Quantitative Survey		Qualitative Interviews		Parents	
	Students		Students			
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>Gender</b>						
Male	729	48.0%	16	48.4%	6	17.1%
Female	789	52.0%	17	51.6%	29	82.9%
<b>Age range</b>						
13-15	1062	70.0%	15	45.5%	-	-
16-17	456	30.0%	18	54.5%	-	-
18-35	-	-	-	-	4	13.4%
36-45	-	-	-	-	14	46.6%
46-55	-	-	-	-	10	33.4%
56-65	-	-	-	-	2	6.6%
<b>Birthplace</b>						
NZ	1231	81.1%	24	72.7%	5	16.7%
Non-NZ	287	18.9%	9	27.3%	25	83.3%
<b>Weight status</b>						
Obese	806	53.1%	17	51.6%	-	-
Healthy weight	712	46.9%	16	48.4%	-	-
<b>Ethnicity<sup>a</sup></b>			<b>Ethnicity<sup>b</sup></b>			
Samoan	694	45.7%	17	39.5%	13	37.1%
Cook Island	326	21.5%	9	20.9%	8	22.9%
Tongan	352	23.2%	9	20.9%	5	14.3%
Niuean/Other Pacific	146	9.6%	3	7.1%	2	5.7%
NZ Maori	-	-	4	9.3%	4	11.4%
NZ European	-	-	1	2.3%	3	8.6%

Note: <sup>a</sup>Ethnicity measured as forced-one-choice question in Survey Questionnaire.

<sup>b</sup> Ethnicity-All-Count, students chose multiple ethnicities in Interviews, so total numbers & percentages do not add up to 100%.

## Qualitative interviews

Sixty-eight individuals (33 students and 35 parents) from 30 Pacific households participated in the qualitative phase of the study. Students were recruited for individual interviews if they had completed the OPIC baseline questionnaire. One of the key research objectives was to compare the socio-cultural influences on body image between obese and non-obese or healthy weight Pacific students; therefore students were sampled by weight status which was assessed using BMI measurements and international cut-off points recommended by the International Obesity Taskforce<sup>54</sup>.

Household location was deemed important for comparing equivalent environmental influences so families were recruited from the same catchment area of Mangere, in the city of Auckland which is a low-decile (low SES) neighbourhood. Interview sessions included at least one adult parent or primary caregiver and a separate interview was conducted with their child/student. Five parent interview sessions included both parents present. Interview sessions progressed until information saturation was reached.



Integral to the research process and in alignment with indigenous Pacific research principles, particular cultural processes and strategies were followed for interviews<sup>55</sup>. Written participant consent was achieved for all participants and the study met the University of Auckland's Human Participants Ethics Committee standards for undertaking research.

In the qualitative component, interview transcripts were transcribed and analysed using the grounded theory inductive approach described by Strauss and Corbin<sup>56</sup>. This technique enables the systematic identification, categorising and sorting of key themes and sub-themes running through text segments in the transcripts. Computer software programme NVivo7 was used to analyse, sort and code interview data.

## Interview and Survey Questions

Interview participants were asked to define healthy weight and body sizes and what influenced their "ideal" body weight/size. They were asked about their beliefs and values on idealised body weight/size, overweight and underweight bodies. They also identified body image influencers and discussed their (if any) current weight control behaviours. Survey questions related to the study objectives were also analysed to provide triangulation and contrast between survey and interview data. The OPIC questionnaire included three questions pertaining to body image. Students responded to questions which asked them to assess and rate their current body weight status, to indicate their level of satisfaction with current body weight, and last, to indicate if they were undertaking any weight control behaviours. Significant findings across key variables are presented here. Data were also analysed across student weight status and results comparing obese student and healthy weight students are presented.

## Results

### *Body Ideals*

Adolescents and their parents were asked to articulate their vision of an ideal healthy body size for themselves. Adolescents' body image ideals were mediated by gender and functionality. Girls reported smaller body sizes to fit within clothing sizes 12-14 as their ideal (see Annex 1 for equivalent international clothing size ranges), while boys generally desired to gain weight to attain male physiques that were competent in sporting activities. There were no differences in the healthy body size ideals between obese and healthy weight students.

Pacific mothers reported body image ideals at clothing sizes 14-16 was ideal for them. Parents valued functional bodies, rather than bodies for aesthetic reasons. For example, bodies that could achieve daily tasks like housework, childrearing and meeting the needs of the family were classed most desirable by Pacific mothers, as illustrated by the quote below.

*"For myself, I would prefer to be smaller, so I can fit into clothes, and so I am able to do housework. If you're big, just only sit there watching TV, waiting for the food to be cooked, that's all, that's why I don't want fat, cos I works at home for my kids and my family, but when you're big I can't do any housework. Size 16 is good, because that's the kind of size where you can still*





*move, still working. I know, if I eat [too much], I get up to those large sizes 20, 22, 24. I don't think so, about those sizes because you can't do anything, ay? The best size for me is size 16, to me that is healthy."*

Samoan/Niuean Mother of 5 dependent children, at-home parent.

Students' ideas about the cultural norms for ideal body sizes were mostly influenced by media portrayals of Pacific or African-American, Hispanic-American celebrities and New Zealand male sporting personalities. For girls, popular music and fashion model media celebrities like Beyonce, Jennifer Lopez, Tyra Banks and from New Zealand, singer Aaradhana were the most mentioned ideal body aspirations. For boys, NZ rugby stars like Tana Umaga, Carlos Spencer, and Maa Nonu were the ideal body size, weight and shape preferences. Both obese and healthy weight students identified the same ideal body size role models.

Pacific mothers were less influenced by external or media personalities but desired their own pre-marriage and pre-childbirth body sizes as their most influential standard. In most cases, parents alluded to being of a different, and in all cases, smaller body size at a younger adult age and based their body size and weight ideals on pre-marital and for the women, also pre-childbirth standards, as illustrated by the quote below.

*"Because I don't like getting fat. It's hard for me to do the housework. I feel lazy if I'm fat. Skinny is nice, I think size 16. But now I am getting fat but before I was skinny. I think it's because I got four kids that's why my body is [like this] [laughs]. When I had my kids, yeah I feel my body is mamafa (heavy), like my clothes are getting big... other times I tell my kids that I am getting fat, I want to go back to my normal size."*

Samoan Mother of 4 dependent children, at-home parent.

### **Body beliefs**

Adolescents and parents were asked whether they believed and or expected their own ethnic group to have an ideal body size that would be different to other ethnic groups. (i.e. "What do you believe is the acceptable body size for all Samoan girls (boy, woman or man) of your age?" "Are there any differences in ideal body sizes between different ethnic groups e.g., Palagi<sup>3</sup>, Samoan, Tongan, Maori etc." "Yes, No, why?") Most students and parents did not believe there was an ideal body size according to ethnicity but were aware that non-Pacific, particularly Palagi groups desired smaller bodies as their ideal. Some students and parents were able to reflect that Palagi groups were usually of smaller body sizes than Pacific groups in New Zealand, but that this was not due to natural tendencies but to Pacific people overeating, under-exercising, changes in New Zealand versus Island lifestyles, and changes in lifestyles, for example, marriage and having children. Comments below illustrate these points.

*"I think [Ideal size is] that's size 12 up to 18, but not more over than [size] 18... Yeah, when I came to NZ, because if you see that's my photos over there in the corner, I was size 14 that time. At that time I am not married I got no kids that time... When I got children, husband that's why I am like this [bigger bodied]."*

Samoan Aunty with 3 dependent children, at-home parent.

*"Maybe like 75 or 80 kilos [is the ideal weight]. I think for us Samoans and Tongan people, we eat too much beef but especially roast pork, I think that is the major weakness for Samoan and*



*Tongan people... Well, I am trying to cut down on eating roast pork."*

Samoan Father of 3 dependent children, at-home parent.

*"No, I reckon most Samoan boys are big and some are thin, cos everyone has different bodies, some eat healthily and most of them are skinny, but some just eat a lot and they get big... Yeah Daniel Carter (NZ rugby player), his body is just the right size, he is not too skinny not too fat but like just the right body and I think yup everybody [all ethnic groups] should have that size."*

Samoan student, Male, Age 16.

### ***Perceptions on overweight and underweight bodies***

Students and parents were asked to comment about what they believed was good or bad about bodies that were overweight and underweight. All students and parents perceived overweight and underweight bodies to be undesirable for adverse health consequences, suggesting they understand the link between obesity and health. For example, getting "heart attacks", "diabetes", "stroke", "lacking energy or strength", "early death", "anorexia and bulimia", and "becoming immobile or restricting movement" were the most stated health effects.

Some key differences were noted between obese and healthy weight students, with obese students noting "getting teased" or "getting mocked" as a negative consequence of having overly-large bodies. In addition, obese students believed there were no negative effects for being underweight, while healthy weight students believed being underweight or "skinny" was unattractive. Gender differences were also observed, with boys asserting that overweight and underweight bodies was undesirable for not "being able to run faster" or "for breaking bones" in sporting activities, and associating weakness particularly with underweight bodies.

Parents disliked overly-large body sizes because they saw the body as a functional entity, particularly in relation to the body fulfilling daily tasks like housework and childrearing.

A number of comments were made about body beliefs and its relation to spiritual health. Some parents (n=3) were not overly concerned about their own or their children's body weight, but prioritised their spiritual health, their happiness or their state of mind that was free from worries or mental stresses as a measure of a good state of health. Below is dialogue with a Tongan mother illustrating these points.

*"A nice body size for me is, if I stay healthy and happy, doesn't matter if you are skinny or fat as long as you are happy and healthy. .. And happy, that's the main thing, like my husband, he is a happy fella, he's not stressed and that's why I think his body doesn't get anything happening to him [doesn't get sick]...but Susana [daughter/student], like I think she is like that [big body] because maybe she is eating a lot, but she is happy staying here with mum and dad, she can do whatever she wants*

***[Interviewer] You are not really concerned about her [bigger body weight] or sometimes do you worry about her?***

*I do, for her health yeah, but fat doesn't mean...[pause], well I think if she is happy that is good*



*How would you describe your weight right now, do you think you are about right weight or slightly overweight or slightly underweight?*

*Overweight, yeah*

*And are you doing anything right now to change your weight?*

*No, I always fit and I am happy, I am just not worried about anything*

*Does anybody in your family or maybe your extended family or work colleague, does anyone says anything about your weight?*

*They do. My friends at work*

*What do they say?*

*“You get fatter”, and I say, “It doesn’t matter, even though I’m fat, as long as I am happy.”  
Tongan Mother of 4 dependent children, factory supervisor.*

**Weight perception**

The OPIC questionnaire included three questions pertaining to body image. Students responded to questions which asked them to assess and rate their current body weight status, to indicate their level of satisfaction with current body weight, and last, to indicate if they were undertaking any weight control behaviours.

**Figure 1: Pacific adolescents’ Perception of body weight, satisfaction levels with current body weight and weight control behaviours (%) by Obese and Healthy weight status (n=1518).**

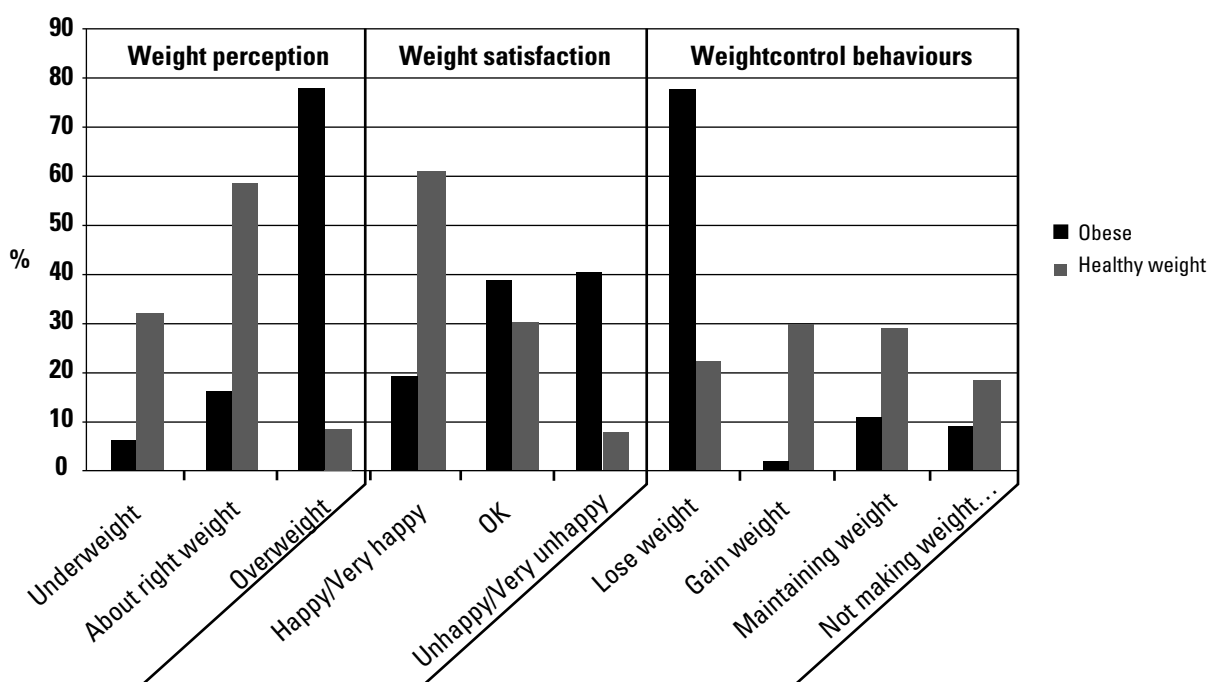


Figure 1 shows that obese and healthy weight students correctly perceived their weight status, (i.e., obese students rated themselves as overweight, healthy weight students as “about right weight”). Obese students were more likely to be dissatisfied with their current weight status and were more likely to undertake weight control behaviours, particularly to lose weight, than their healthy weight counterparts.

Results from the qualitative interviews mirrored those found from the quantitative sample. Fourteen out of 17 obese students (or 82%) wanted to lose weight but only 8 out of 16 healthy weight students (50%) wanted to change their weight, 1 student to decrease weight and 7 male students wanted to increase weight.

### *Weight control behaviours*

Pacific adolescents and parents rated each other as the most influential person in the encouragement to make changes to body size. Pacific parents are more vocal on encouragement when their children’s body size increases, which indicates that Pacific parents hold ideal body image standards for their children. Parental influence was put upon both girls and boys with clear messages about parental expectations for ideal body sizes or weight that are not too skinny and not too big. Students were encouraged to be of a certain size, either to lose weight when body size is deemed too large or to bulk up in size when body size is deemed too small. Bulking up in size was particularly important for boys and having functional bodies related to sports performance. Other males like brothers and fathers would encourage boys to have stronger and bigger-sized muscular bodies.

## **Discussion**

Results of the study matches previous research showing Pacific adolescents and their parents idealised average-sized bodies, that there were no differences in ideal bodies between obese and healthy weight students and no cultural expectation or desire for obese bodies by Pacific people.

### *Pacific students’ body image:*

Pacific adolescents were aware that bodies that are too big or too small can result in health conditions like diabetes, heart attacks or early death, but the most important motive for a desirable adolescent body type was in relation to what their bodies could do for them now. For boys in particular, this meant having a body that is strong and skilful in sports. Interestingly, cross-cultural literature on male body image finds this body type is valued and idealised amongst both Western and non-Western men and boys, with the sporting context a key environment for displaying these elements of masculinity<sup>57,58</sup>.

### *Pacific parents body image:*

Results on Pacific adult body image found Pacific mothers (all of the interviews bar one, were with the mother present) reported body image ideals at clothing sizes 14-16 was ideal for them. Parents valued functional bodies, rather than bodies for aesthetic reasons. For example, bodies that could bear children and achieve daily tasks like housework, childrearing and meeting the needs of their families were classed desirable.



The following section will explain that the existence of traditional but relevant Pacific social structures and Pacific cultural values can be applied to explain Pacific people's body image findings. A useful starting point to contextualise the following discussion points are to apply current scientific understanding of the body as "part of a society's cultural order" embodying the value systems of each society<sup>32</sup>. The author contends that as has been found with other non-Western groups, particularly minority groups in Westernised countries, who showed very little concern or preoccupation with their bodies, body image concepts or body image as an abstraction is not well understood<sup>59</sup> nor does it have traditional or contemporary relevance for Pacific groups. The author further contends that body image, which involves an individual making a subjective perception and evaluation of the physical attributes of his or her body, and how closely this fits to its cultural group's ideal, is not a *modus operandum* of Pacific people as it does not fit within traditional but still relevant cultural structures and values.

### *Positing Pacific societal structures as an explanation on body image and Pacific peoples*

Traditional leadership arrangements still relevant today are different to Western standards<sup>37,60</sup>. For societies like Tonga and Samoa, leadership was (and still is in some respects particularly in Tonga) tied to blood lines with strict adherence to arranged marriages between families of higher social order which was undertaken specifically to bolster the power of royalty familial lines. This is to say, that social class by birthright ensured high status in these societies, and it was highly unusual for lower order classes or commoners to attain a higher position merely through enhancing beauty ideals like for example, altering body sizes to ensure this. Consequently, to desire what cannot be attained, that is, social class mobility, which must be noted is different to Westernised standards of economic mobility,<sup>37</sup> goes against the argument that lower order classes would desire the body sizes of higher order individuals. If we are to believe that the body is a reflection of a society's social order, then Polynesian leaders or high status individuals, who have a "sacred" mandate of leadership, were meant to have larger bodies and commoners were not. These traditional societal class orders mean that leadership rights are highly respected and communal respect is given by servicing royal or high status families. To be given the best quality foods, and to free these individuals from daily laborious work, are examples of the work of common people in honour and recognition of the "sacred" status of leading families.

Are these traditional societal structures still relevant today and practised in the New Zealand environment? The structure of Pacific Island churches maintains very much, these traditional social orders and high status leadership is vested absolutely in church Ministers or Pastors<sup>61,62</sup>. According to Meleisea, for Samoans the divinely-inspired "sacred power of the old chiefs was transferred to the pastor who was given the chiefly form of address of "*Susuga*"...The pastor was termed "*o le feagaiga*" because of his covenant with the village, and in recognition of the covenant between God and man."<sup>37</sup> The structure of Pacific Island churches mirror traditional societal order, with the Minister as the head of the congregation and its members are ordered according to seniority by age and traditional rank. National census data confirm the salience of the church in New Zealand-based Pacific populations, particularly for Tongan and Samoan groups 83% of Pacific people are affiliated with at least one religion,<sup>63</sup>. Students and parents interviewed for this study mirrored the statistics rates. Eighty-two percent of the study sample (52 out of 63) attended church regularly and church events and religious practices, such as daily family evening prayers still practised in Island homelands are still very much conducted by Pacific families in the New Zealand environment.

In relation to body image, outside observers may note that generally Pacific church Ministers and Pastors



have larger bodies than members of its congregations. Some Pacific researchers have examined the role of the unique Pacific-derived churches and the leadership structures within it. According to Setefano 64 the wealth and the status of church Ministers manifested through obvious signs of having high status symbols like expensive cars and houses and personal effects as well as having a well-endowed body, is looked upon by Samoans particularly as a testament of the wealth and well-being of the whole community. For it is the role of the church community to provide service to their "sacred" leaders, who in turn looks after the spiritual well-being of members. In relation to body image, the expectation is for church leaders to have certain "chiefly" body types, which befits their divinely-ordained high status, symbolising the wealth and well-being of their whole community/congregation. Hence, when previous studies report unexpected findings of Pacific adults not idealising larger "obesity-defined" body types, it is very likely that their samples chose this because this was not the expected body ideal for lower order classes of people to have<sup>1,21,23-26,28,31,50</sup>. Previous samples chose bodies that suited their status and their daily functions and most importantly, and in relation to the critique of current body image research, the common person's idealised body size was of an average-sized body. In this particular study, when parents were asked who they would like to look like body-wise, they did not choose their ordained leaders or community members of high status as role models. They chose average-sized bodies and their own previous body sizes as their preferred model.

### ***Positing Pacific cultural values as an explanation on body image and Pacific peoples***

Pacific mothers in this study, who are mainly Island born migrants, confirmed the salience of functionality in their estimation of an ideal body. This is due to the traditional gendered identity of a Pacific woman as progenitor and their traditional role within the family. However this role, coupled with the lack of preoccupation for body size, may reveal that the quest for functionality is due to Pacific people valuing body sizes that can fit within their own definitions and worldviews of "health".

Pacific people generally have a holistic view of health that is different from Western biomedical definitions which generally emphasize physical health over other dimensions<sup>65-67</sup>. For Pacific people, the mind and body are not separate entities and spiritual elements are important. Pacific worldviews and understandings of key concepts of "health", "illness" and "sickness" have been described by Pacific researchers as being diametrically opposite to Western understandings<sup>68</sup>. The results of this study found that some Pacific parents were not convinced that body size alone was a sufficient marker of health status. Their explanation for this belief is that a healthy body is a body that can function and complete all of the obligations required of it for its extended family/community but also, that it must contain important markers of spirituality, which are positive emotional states like "happiness" and lack of mental stresses like "worries". Samoan, Tongan and Cook Islanders define health as being well in body, mind and soul and these three parts as a whole are interpreted as being healthy. So according to the Pacific women's understanding of health, the ideal healthy body size is the body that can function in this manner and therefore "average-sized" bodies of clothing sizes 14-16 is a reasonable estimation of the healthy body size ideal for them.

A key part to understanding definitions of health for Polynesian societies is to understand the foundations of Samoan, Tongan and Cook Island culture. Hecht, et al., provides a useful explanation of *faaSamoa*<sup>4</sup>: Samoan social relationships are grounded in the idioms of kinship. But the culture focuses on the political form and content of relationships, on concepts such as *fa'aaloalo* (respect), *fa'alupega* (proper address, order of precedence) and *feagaiga* (social contract).<sup>69</sup> Tamasese, Peteru and Waldegrave<sup>70</sup> go further to state that in the Samoan worldview there is no concept of self and Samoan identity will eventually return



to the connections between people. This could be generalised as the manifestations of interdependent communities. And all activities related to well-being are fostered in the group and one's relationship with others within that group, so that individual pursuits and undertakings such as making individual subjective judgements on one's body in relation to others just would not occur under these conditions<sup>71</sup>. Thus explaining why researchers may find, Polynesian samples general disdain and lack of preoccupation with their bodies.

The spirituality elements can be explained because "the understanding of health for Samoan and Cook Islanders is largely related to family, both living and dead"<sup>68</sup>. For example, Meleisea explains that pre-Christian "religious beliefs were an important factor in social control. For example, illness was often explained as a punishment by ancestral gods for behaviour which spoilt the honour of the family"<sup>37</sup>. Illness and sickness are therefore not perceived as a "failure of the body" but a "sickness of the spirit". Therefore a body that is big but can function within the family, its activities ensuring the well-being of the members of that family, is healthy; but related to this also, is that a body cannot be ill or sick due to large size, if it is happy spiritually.

This section therefore suggests that cultural values, encapsulated in Pacific people's view of "health", mediates body image ideals. Pacific adults want bodies that fit their definition of health which is related to the well-being of the family and important traditional spiritual elements. Health as defined by Pacific people mirror World Health Organisation (WHO) definition of health as "a state of social, mental, physical and spiritual well-being not just the absence of disease and infirmity"<sup>72</sup>. Finau confirms that for Pacific people this is "a state akin to satisfaction and happiness"<sup>65</sup>. The balanced combination of the health elements mind, body and soul/spirit are important markers of health status for Pacific people and measuring health by body size alone is therefore viewed as an insufficient indicator of 'Pacific-defined' health status.

### *"Is the Pacific 'ideal' body size the 'healthy' body size to attain?"*

The implication of this finding, is to ask whether the Pacific parental body size ideal is a healthy body size for Pacific adults to attain? It would seem that students and parents are already choosing healthy body sizes for them which are different to biomedical BMI-defined body sizes. The results of this study seem to mirror Craig *et al.*'s<sup>30,73</sup> findings which found that Tongan men and women preferred a body size slightly larger compared to their white Australian counterparts but these preferred sizes, if modified to reflect BMI equivalents to percent body fat would show that the Tongan body preferences was both reasonable and realistic. It is not clear whether body image research makes any meaningful contribution to obesity prevention for Pacific people, given the cultural-bounded nature of the concept "body image" which sits at opposite ends of societal worldviews and value-systems. The author challenges the basis of cross-cultural research in this area which began with problematic framing of the concepts "big" to equate to "obesity" as the foundation for Pacific people's body image. The general thrust of contemporary cross-cultural body image research has been to describe differences between groups so as to test this speculative hypothesis. The motivation was to create more body awareness in order to mitigate the effects of "Westernisation" or "acculturation" which bring problematic eating disorders. This seems like a highly a flawed argument when there is unprecedented persistent diminution of the ideal body concurrent with the relentless enlargement of the actual body. Craig<sup>35</sup> calls this the "ubiquitous presentation of the contrast" in contemporary Western environments, with the slim ideal images prominently displayed on magazines, in movies and on television, billboards, and on the side of buses, while obesity is obvious all around. Westerners idealise smaller body sizes and body image concerns have increased, but this has not decreased the current levels of population obesity prevalence<sup>74</sup>.



## Conclusions

Culture plays an important role in how health is viewed and defined by an individual and therefore, the concept of obesity needs to be placed in a socio-cultural context. Health is more holistic and this has relevant functional elements for Pacific people. These differences pose substantial threats to communication and understanding between healthcare workers and Pacific communities.

The body image results of this study found Pacific adolescents and parents did not desire obesity-sized bodies but desired a range of average-sized bodies that met their Pacific-defined view of health. Further research is needed to test whether the body image ideals Pacific adolescents and adults strive for are in fact healthy body sizes to attain. Current tools for measuring body composition using weight continue to obscure the relationship between health and body size for Pacific people. Evidence is mounting on the need for ethnic-specific healthy weight ranges that can be correlated with some confidence to mortality and morbidity.

Furthermore, the author predicts that the incongruent cultural worldviews that exists between Pacific and non-Pacific will not elicit much future body image research from etic viewpoints. Ritenbaugh states that Western researchers have an ethnocentric bias and generally “experience our own culturally derived diseases as real and have only closely questioned disease categories in other cultures which we cannot intuitively understand.”<sup>38</sup> This could similarly be applied to Pacific researchers, who, if they cannot find cultural relevance in the concept of “body image” will not pursue its further exploration through our own ethnocentric biases.

1. This paper uses the ethnic term Pacific which in the New Zealand context is used commonly than the race-based Polynesian term. The term Polynesian is more widely used in previous international literature and will be used throughout this paper when referring to it.
2. New Zealand Maori word mana means prestige, authority, power, influence, status, spiritual power, charisma.
3. Palagi is the Samoan term used to describe white European people in New Zealand.
4. *faaSamoa* means Samoan customs or way of life.

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## Endnotes

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- 2 New Zealand Maori word mana means prestige, authority, power, influence, status, spiritual power, charisma.
- 3 Palagi is the Samoan term used to describe white European people in New Zealand.
- 4 FaaSamoa means Samoan customs or way of life.



## Appendix 1

Woman's international clothing chart

U.S. named	U.S.	U.K.	France	Germany	Italy	Australia/NZ	Japan
X-Small	2	4	32	32	36	6	5
X-small/small	4	6	34	34	38	8	7
Small	6	8	36	36	40	10	9
Medium	8	10	38	38	42	12	11
Medium	10	12	40	40	44	14	13
Large	12	14	42	42	46	16	15
Large/ X-Large	14	16	44	44	48	18	17
X-Large/ 1X	16	18	46	46	50	20	19
1X/2X	18	20	50	48	52	22	21
2X	20	22	52	50	54	24	23
2X	22	24	54	52	56	26	25
3X	24	26	56	54	58	28	27

Note: [http://en.wikipedia.org/wiki/Clothing\\_sizes](http://en.wikipedia.org/wiki/Clothing_sizes), accessed 31 August, 2010. This is based on Wikipedia estimations as there are currently no absolute scale and mandatory standard size designation for clothes internationally.

*"In summer, the song sings itself."*

*William Carlos Williams*





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Postgraduate Diploma in Public Health

**231.705 PACIFIC HEALTH**

Semester 2, 2012 – Block Courses



OBJECTIVES OF THIS PAPER ARE TO:

- Provide information on the health status of Pasifikans in the Pacific and in Aotearoa
- Promote an understanding of Pasifikans' perspectives on health and well-being
- Discuss priority Pacific health issues
- Discuss models of Health Promotion for Pasifikans
- Discuss community development for Pasifikans
- Discuss the principles and processes of Pacific health research
- The focus will be Pasifikans in Aotearoa



BLOCK COURSES:

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