

Cultural elaborations of obesity - fattening practices in Pacific societies

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Fattening rituals in Pacific societies are examined within a discussion of the cultural aspects of obesity as a disease of modernisation. Those rituals contributed to a strong aesthetic value of large body size and light skin, while also incorporating the symbolic value of food. They may have enhanced survival value of a genetic potential in the face of irregular diet. Today with a more regular diet available only the negative aspects of large body size prevail.

Introduction

Obesity, or large body size, has been widely cited as a particular phenotype associated with the "thrifty" genotype in societies adjusting to Westernisation and a cash economy¹⁻⁴. These biological/ medical arguments omit reference to cultural factors such as fattening rituals that were integral in the past to the aesthetics of societies in the central and eastern Pacific. Thus we must re-examine the implications of Neel's argument that the over-production of insulin and fat deposition necessary in the past when food supply was irregular has had unfortunate consequences when a more regular food supply became available^{5,6}. This link between genetic and environmental factors underrates the cultural context in which a high aesthetic value was placed on large body size.

Obesity - a negative valence of body image

The term obesity in western literature refers to a body size, markedly larger than a norm, established by a number of measures such as body mass index or waist/ hip ratio, drawn up from ideal types in the western world, that is from mid-latitude, northern hemisphere, temperate climate, sedentary populations. Its suitability for populations in the rest of the world is being reassessed⁷.

Obesity, a western-centric term, has strong emotive connotations, suggesting lack of control by the individual over her/his own body⁸. But such an evaluation may not accurately represent other cultures' body image ratings, or even of those in the western world itself. In 19th century Europe obesity became negatively valued, as it was associated with the sin of gluttony; controlled bodies, brought about by restricted eating patterns, were hailed as a mark of civilised society⁹. Today sectors of western society adulate slim as beautiful, and reprove those that actively cultivate large body size.

The term large body size, used here instead of obesity, reduces these negative connotations and allows us to

consider the positive aspects of fattening practices in a number of societies around the world. In West Africa, the Annang have a fattening room in which women are beautified for their society's benefit¹⁰; in central Africa, Massa men are made to drink milk for three months in order to produce large glistening bodies that are a mark of beauty¹¹. And we are already familiar with the social recognition given to the size and cultural importance of Japanese Sumo wrestlers¹². Here we will discuss two Pacific societies, Tahiti and Nauru.

Fattening Practices - Tahiti

In Tahiti, the ritual process of ha'apori (literally, to make fat), was recorded by 19th century visitors such as Ellis, Moerenhout and others¹³⁻¹⁶. What they saw appeared to be bizarre customs, when contrasted with their own cultural perspectives. Selected men and women, usually young, and from high ranking families, underwent a purposeful fattening process. They were set aside in a special place to be fed by relatives and undertake little activity "in order to grow fat and lusty and high spirited"¹⁴. Prodigious amounts of breadfruit, both fresh and fermented, together with bananas and other fruits crushed and mixed in water so that they became almost liquid were fed daily. The breadfruit itself was considered to lighten skin colour¹⁵ but in addition they were covered in large amounts of tapa barkcloth, which when removed before the nobility of the community revealed just how much lighter the skin had become. The length of time any group stayed in seclusion depended in part on the supply of breadfruit.

The main purposes of the ritual were 'to enhance their sexual attractiveness'¹³ and "to grow fat and lusty and high spirited"¹⁴. But it is hard to know whether these were the values of the beholder or those of Tahitians

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themselves. Those who emerged from the ritual were seen to have enhanced beauty, not only in terms of their body size, but also of their lightened skin colour.

Thus these ha'apori rituals combined two aesthetic values, an enlarged body, covered with a lightened skin. This beautification process, I suggest, had a stronger symbolic message than the material aspects. That certain people were known to put on weight more quickly than others, and thus to respond readily to fattening may have added to their favoured selection. Today we can argue that the fattening process may have enhanced a genetic potential.

In the intervening 150 years, such rituals have been set aside though Tahitians continue to manifest large body size. Imported foods have been available since the 1880s and breadfruit is no longer a mainstay. The French body image today is of great concern in Tahiti, particularly to young women. Older women continue to grow large filling their loose fitting dresses. Obesity is a health concern of French Polynesian health authorities, with diabetes and coronary heart disease significant in the morbidity statistics.

Fattening Practices - Nauru

Fattening rituals were also practised in Nauru¹⁷⁻²¹ where fattening was associated with beauty and fertility. Young women of the chiefly class were the central focus of deliberate fattening, particularly at the time of first menses¹⁸, such practices continuing past child-bearing into middle age. Some young men also participated in these fattening rituals, as preparation for boxing competitions between districts²⁰.

The young women were secluded in a special hut, each being fed and cared for by relatives. They were not allowed to do anything for themselves. When they emerged they were presented to the community wearing strings of lagoon fish, so highly prized in Nauruan culture. Such enlarged bodies together with lightened skin were considered hallmarks of beauty in which the whole Nauruan community took pride.

Nineteenth century European visitors described Nauruan people as powerful and well nourished, with bodies that were "inclined to be a little plump", one woman's weight "increased to 400 pounds" and several women bearing names meaning fat or plump¹⁸, "thin or bony people were the exception"¹⁷. Another writer described the women "in their middle years as perambulating lumps of fat"²⁴.

These fattening rituals are all the more remarkable on a raised reef such as Nauru with such a paucity of food resources.²⁵ Pandanus and coconuts were the only plant foods, and they were eaten with fish. Pandanus season was extended by preserving the fruit as edongo paste but for several months, or years they lived on only coconuts and fish. Furthermore the island is prone to long periods of drought, lasting some two or three years or longer. So Nauruans were well acquainted with food shortage. Feasts provided a welcome chance for indulgence in a focused food sharing event that drew everyone in the community to take part in whatever was available.

Such fattening rituals can be analysed as having both cultural as well as biological values. A woman's enlarged body and lightened skin, the hallmarks of beauty, represented the well-being of the community, the contributions of food supply and work capacity to the glory of their society.

Elsewhere I have suggested a biological interpretation of these fattening events⁷. The provision of an increased food supply to women, and particularly to young women at puberty, enhanced chances of conception, and thus contributed to the reproduction of this society. The investment of food supply and work by a family in one of their members represented their investment in maintaining the whole of the Nauruan community. She was not fattened as an individual but as a representative of the entire Nauruan population. For such a small population (of about 1000 in 1889) that was struggling to reach the magic figure of 1500 such an investment was vital to their survival as a community. Of all populations in the Pacific, the people of Nauru were most in need of the "thrifty" gene. Ability to store fat would have been of great advantage for both women and men in such stringent circumstances. The rituals enhanced the genetic potential.

Fattening rituals on Nauru ended some time in the 1920s¹⁹. New practices brought in by the large non-Nauruan population on the island associated with mining for phosphate introduced a range of goods including canned Alaska salmon, sugar, rice and ship biscuits, as well as tobacco and beer. But these new foodstuffs were available only to those few Nauruans who had the cash (from copra or mining) to buy them.

The immediate effects of this dietary change to a more regular food supply are not reflected in the health reports. Diabetes is not mentioned in the annual reports to the League of Nations and the United Nations (1921-1966) nor in Kirk's nutritional study in 1957²⁶. A sudden 'epidemic' of diabetes in 1976³¹ is thus all the more extraordinary and thus needs explanation. It has brought Nauru into the headlines of medical and popular journals, where this nation is now negatively characterised by the labels 'obese' and having an extraordinarily high rate of diabetes.

Discussion

The two case studies show that rituals of fattening the body and lightening the skin were an integral part of the aesthetics of these two Pacific societies. They were community events, carried out at the behest of the chief, and for everyone to share in the beauty of the participants. Such beautification was under the control of the whole community, not just the individuals taking part.

These rituals were widespread throughout the Pacific before contact, long before any period of modernisation in the mid-20th century. They had been developed according to local cultural rules and with their own local significance. That significance was poorly understood by visitors whose standards of body size were diametrically opposed, and who labelled these Pacific practices as uncivilised. Such rituals had to be set aside in favour of more civilised ones, such as eating three meals a day,

afternoon teas, and sitting in church²⁸. They did not see that both body fattening and skin lightening also required social control, particularly when food resources were in short supply.

Such condemnation of obesity as uncivilised and lacking in control is paralleled by twentieth century biological assessments of obesity as representing bodies out of control and contributing to diseases of modernisation such as diabetes, cardio-vascular disease and hypertension. Many studies have examined biological aspects of obesity, particularly in the western world, but cultural factors are only now beginning to gain significance^{eg 28,29}.

Whether these two societies developed similar rituals in response to social and/or biological pressures can never be directly established. We know that food habits throughout the Pacific were characterised by irregular eating and major feasting on vast amounts of food²³. Tahitians went for several days without eating, then when they did eat they consumed vast amounts, relaxed, and might not eat for another couple of days. That was not due to shortage of food, but by choice.

Similarity in the fattening rituals in the two islands discussed here is surprising if we consider environmental differences between the two islands. Tahiti is a high island, with plentiful rainfall, a variety of food resources only rarely limited by cyclones or other climatic damage. Nauru on the other hand, a small raised coral reef, had a very narrow food resource base, and was prone to extensive droughts. So whereas Tahitians experienced food shortages only rarely, for Nauruans they were an all too common feature of their way of life.

Dietary change is a major feature of Neel's hypotheses^{5,6}. The effects of a more regular diet in modern times is more complex than he originally proposed. A major change has been the regular availability of food, whether locally grown or purchased. But the normal diet for urban dwellers has reduced variety from the traditional eleven local starchy foods to rice and bread²³. And the quality of an urban diet is determined by the cash available. Thus the modern diet is likely to have reduced the range of nutrients formerly available.

The amount of food eaten at any one time was considered excessive by early writers but they did not appreciate that feasts alternated with periods when no food was eaten. This irregularity has been replaced by the three meals a day cycle, when food is eaten whether the person is hungry or not. The practice of emptying the stomach completely, rather than keeping it constantly full has health implications. A genetic advantage to survive on a low caloric intake, as well as on an irregular intake, must be considered.

Whether dietary change has resulted in more calories being consumed today is also hard to establish. With smaller populations more food was available to be consumed. We know that women bore seven or more children feeding them with more than adequate breast milk. Today shortage of cash in both Tahiti and Nauru determines foods consumed in a household, rather than the local supply. For Nauruans who do not like non-Nauruans visiting their homes, individual caloric intake is

hard to calculate. Dietary studies suggest major changes, but the baseline is not available.

So we must ask whether the total number of calories taken in a week or over a whole year is a more valid assessment of nutrient health than our current mode of calculating dietary intake by the day and by the meal? And should we not be considering how the peaks and troughs over a year impair children's growth³⁰? How does irregular intake affect fat deposition?

Energy expenditure is also a key variable used in evaluating obesity. Energy expenditure may not have decreased as much as some have argued^{31,32}, or may have taken on more intense forms. On Nauru and low islands there was no agriculture so major work activities included walking across the island, and fishing in unsheltered waters. These activities have been replaced by driving around the island, fishing and nightly volley ball games or track training. On high islands such as Tahiti, fewer people are cultivating agricultural plots, but those that are have to travel further, and break in hostile terrain. Those who are living in peri-urban areas may either not be able to afford transportation to work, or to market, thus having to spend energy to obtain food for their households. Or the middle classes have a busy schedule between work and home, including sport and increased social activity. Energy expenditure has changed with new activities and the day's length extended by electricity, but not necessarily been reduced.

Health issues

Both islands discussed here are characterised by appearance of NIDDM in the last twenty years. One explanation may be that life expectancy has increased due to lower morbidity and mortality, so more people are reaching an age when maturity onset diabetes is likely to occur. In the past, few elderly people survived but missionaries and medical care have contributed to the population not only living longer, but experiencing diseases associated with middle age. The current generation now in their 60s and 70s is the first set of direct heirs to parents who may not have reached an age at which to experience NIDDM. We need studies on the impact of menopausal syndromes on these new longer lived populations.

Conclusions

These points of discussion suggest the need to understand the obesity phenotype as a cultural as well as a biological factor. Previous history of dietary irregularities that Neel^{5,6} referred to must include the fattening and skin lightening rituals, along with food intake, as part of the aesthetic values of those societies.

I have provided evidence that large body size was positively encouraged within ritual practices in both Tahiti and Nauru well before Western intervention, and thus obesity cannot be associated with modernisation. It was culturally valued for the whole community within their aesthetic principles, not in terms of any material benefit for individuals.

Western values of controlled body size, and controlled eating habits introduced last century, have not taken these

local aesthetic values into account when examining obesity. Furthermore, the western medical model deals with changes in individuals' biological status, thereby overlooking the concern that an individual may not be in charge of her/his own body.

Neel stimulated us to address the association between obesity and dietary irregularities as these factors

contributed to the incidence of diabetes mellitus. The cultural elements of that association stressed here are important considerations alongside the biological and medical elements. Together the combined approach can answer questions raised about the past and about the present manifestations of large body size.

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