

# Letters to the Editor

## Linking medical workforce planning and training

### Sexual abuse legislation in Samoa

With regard Dr Moran's query in Pacific Health Dialog, 1994; 1(2): 79-80, I wish to advise that at present Western Samoa does not have specific legislation regarding sexual abuse and domestic violence other than provisions in the Crimes Act allowing for a complaint to be laid under certain sections, for example:

- Section 47 - rape
- Section 48 - attempted rape
- Section 49 - incest
- Section 50 - sexual intercourse by man with young related girl living in his family
- Section 51 - sexual intercourse with girl under twelve
- Section 52 - indecency with girl under twelve
- Section 53 - sexual intercourse or indecency with girl between twelve and sixteen
- Section 54 - indecent assault on women or girl

All these sections deal with sexual abuse of young girls. There are also provisions for laying a complaint where there are acts of indecency between men and women, between males, sodomy, etc. The majority of cases that we have dealt with relate to incest between men and young girls, commonly these have been brought up within the family as an adopted daughter or step father/step daughter relationships.

We advise that in August 1993 an organisation called Mapusaga o Aiga (Family Refuge) was established to address these issues. At present, we are carrying out research regarding the incidence of sexual abuse and domestic violence in Western Samoa. I am the present convenor.

We would be pleased to receive any relevant information or newsletters, from your office and readers, on this important, sensitive but largely neglected topic. Please do not hesitate to contact me.

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By the year 2000 over 400 new Pacific doctors are expected to graduate from the Fiji School of Medicine, University of Papua New Guinea, and the Pacific Basin Medical Officers Training Program in Micronesia. This is a dramatic increase compared to the numbers of doctors that have graduated from the Pacific during the 1970's and 1980's. This new physician workforce will join the many working medical registrars throughout the Pacific.

Traditionally, there have been limited educational and funding opportunities available to train all the Pacific doctors and the registrars interested in pursuing advanced degree or specialist programs. Such training offered in metropolitan countries, with its emphasis on tertiary medical care experience, is inappropriate for the technological and support workforce limitations of many of the island nations. Appropriate or not, too few registrars qualify, too few complete their studies, and those that do, too few return to work back in their home islands.

In 1990, as part of the redevelopment process at the Fiji School of Medicine (FSM), a Postgraduate Training Conference was convened attended by the Fiji Ministry of Health and medical educators from the Pacific. The rationale for the need to initiate Pacific based training was established and the type of postgraduate training schemes for Fiji and its neighbouring islands were debated. Arguments included developing offshore 'toned down' metropolitan programs versus innovative programs suited to the health care needs and technological realities of the Pacific.

**“ ... training offered in metropolitan countries, with its emphasis on tertiary medical care experience, is inappropriate for the technological and support workforce limitations of many of the island nations. ”**

The outcomes of the Conference included a consensus that postgraduate training in the FSM was feasible and recommendations were made to establish select Diploma and Master of Medicine programs. A postgraduate Studies Board was established within the FSM to affect these outcomes.

In 1991, the postgraduate training programs at the FSM started. Appropriate attention has been directed to the development of the 2-step (PCP/MBBS) undergraduate training program<sup>1</sup>. This is moving along satisfactorily. With the projections of over 400 new Pacific doctors by the Year

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2000, there is increasing pressure to not only determine the numbers of physicians needed for the Pacific but also the kinds of doctors needed to carry out the health initiatives within the region at graduate, postgraduate and specialist levels.

Now is the time to refocus on the educational process for step 3 - the development of appropriate postgraduate training and continuing medical education - and link this process with realistic health workforce planning. This is essential to develop the right types of training to produce the appropriate kinds of doctors and specialists for the Pacific to the end of this century and beyond.

I hope Pacific policy makers and your readers will consider postgraduate medical education and specialist training part of a continuum, of which the present innovative Pacific undergraduate programmes<sup>1,2</sup> is the prerequisite and a model. This is the only way to Pacifically appropriate specialists of world renown.

### References

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**“ Cultural rituals of fattening associated with skin lightening in several Pacific Island communities may have had a genetic base, but were developed from an aesthetic set of values (Pollock). Thus the cultural phenotype is hard to distinguish from the genotype. ”**

### The Thrifty Gene Symposium: concepts and evidence after 30 years

A meeting on the thrifty gene hypotheses was organised under the auspices of the Australasian Clinical Nutrition Society in conjunction with the Departments of Community Health, Anthropology and Medicine, University of Auckland on December 8 and 9, 1994. Neel's (1962 and 1982) thrifty genotype hypothesis was revisited by scholars from a wide range of disciplines including epidemiologists, human biologists, cultural anthropologists, nutritionists and medical specialists. While it was considered to still have

some explanatory value for the associations between obesity and diabetes through selective insulin resistance, several speakers argued that these associations have become more complex as we examine them closely.

John Allen argued that the thrifty genotype was once universal in human populations, so the problem is to explain the evolution of the “non-thrifty genotype in those populations in which it is no longer seen”. O’Dea identified four lifestyles in which the thrifty gene has been advantageous namely: hunters and gatherers such as Paleo and Australian Aborigines; Pacific canoe voyagers; and others who experienced periodic food shortages. She emphasized that selective insulin resistance may be closely linked to fat deposition, leading to non-insulin dependent diabetes (NIDDM) with Western diets. Swinburn amplified this point, based on Pima Indian studies, that insulin resistance attenuates rather than accelerates weight gain.

The thrifty genotype has been linked to a number of both genetic and environmental factors, rather than a single gene. Harding demonstrated that poor intrauterine nutrition may influence rates of growth in different organs, not just body size and height, based on studies in sheep. Adaptation to long cold canoe voyages was identified by several speakers as a basis for large body mass (Baker, Brewis, Houghton, and McGarvey). Cultural rituals of fattening associated with skin lightening in several Pacific Island communities may have had a genetic base, but were developed from an aesthetic set of values (Pollock). Thus the cultural phenotype is hard to distinguish from the genotype.

Ethnic differences have been a major factor in many of the thrifty genotype studies, with Pacific Island communities featuring strongly in this Auckland discussion. Simmons identified an emerging maternal history of diabetes as an important factor in the development of NIDDM in offsprings. Large body size, manifest in high body mass index was seen as advantageous to these populations in the past but became less so in recent times.

Whether it is the content of diet, frequency of eating and/or change in exercise patterns still remains unclear.

Body mass index (BMI) as a measure of risk of diabetes and cardiovascular disease may not be as useful as a distinguishing feature between ethnic groups as it has been treated in the past. The degree to which large body size is a phenotypic expression of the thrifty genotype is by no means clear, as it has been culturally promoted by fattening, regularised eating at meals and other cultural supports. Matangi showed that for older Cook Islanders large body size is still the ideal, whereas younger women are ‘thinking thin’. Swinburn demonstrated that Cook Islanders have less

body fat than Caucasians with the same BMI, so "BMI definitions may need to be altered for Polynesians". The thrifty genotype hypothesis is a multi-disciplinary topic that still continues to yield questions regarding the links between obesity, diabetes and other diseases.

It was a very thought provoking two days in which the thrifty gene was turned around, no longer to be seen as a marker of idiosyncratic populations, such as Polynesians, but rather to be widespread around the world, the only ones lacking it are Western Europeans! Swinburn called for an alteration in use of BMI as he is finding in his study that Cook Islanders with large body size have a leaner body mass than Europeans who are smaller. So Europeans are fat and obese, while Pacific islanders are large bodied but not fat. My paper stressed the fattening and skin lightening rituals that were part of Tahitian and Nauruan social customs at contact, so that obesity, or as I prefer it large body size is not a recent phenomenon, it is not a "disease of modernisation", rather it has been an integral part of the aesthetic values. The genotype for selective insulin resistance may underlay these cultural developments, but for me the cultural phenotypes are what need to be addressed, as many of the Symposium participants stressed the complexity of genotypes contributing to obesity, diabetes and cardiovascular disease.

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### Acute lymphoblastic leukaemia and intussusception

In a 6 month period we saw 2 cases of intussusception: the first who presented was found to have acute lymphoblastic leukaemia (ALL). This 22-month-old Fiji Indian boy had been referred for acute respiratory infection. Within one week, he developed abdominal pain and bloody stools. Rectal examination revealed a firm tender mass. He was also found to have an enlarged liver and spleen. The peripheral lymph nodes were also enlarged. Peripheral white cell count was 58000 and haemoglobin 7.0g, platelet count was 40000/cu mm. At laparotomy an ileoileal intussusception was confirmed. Post operative bone marrow aspiration confirmed acute lymphoblastic leukaemia. Unfortunately, the child died from overwhelming septicaemia.

The second patient was a 15 month Indian boy who initially presented with anaemia. Haemoglobin was 3.0g, white cell count 3800 with lymphocyte predominance, platelet count 30000. A bone marrow aspiration confirmed

acute lymphoblastic leukaemia. Because this fell into our poor prognostic group (L2 type), he was not treated. (This is because of scarcity of drugs and lack of facilities for irradiation). Subsequently after a bout of respiratory illness and acute diarrhoea he developed ileocolic intussusception. This was confirmed radiologically. Parents refused surgery and the child died 2 days later.

The questions we ask are: is there any association between leukaemia and intussusception? If so, what are the factors which predispose the leukaemia child to develop intussusception? Could the intussusception represent metastasis to the intestines?

We are aware that the literature contains scanty information on this subject in relation to children<sup>1,3</sup>. Could infection by agents affecting the gastrointestinal tract trigger and act as leading points in the intussusception? Intussusception in older patients with malignancies, particularly the elderly, has been described<sup>3,4</sup>. Is the mechanism the same or is our observation coincidental?

**“ So Europeans are fat and obese, while Pacific islanders are large bodied but not fat. ”**

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