Journal Abstracts

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Epidemiology as labeling: neurological diseases and stigma on Guam

Workman A, Quinata D. *Journal of Micronesian Studies*, 1996; 4(1):47-69.

A discussion of the problems associated with labelling persons diseased for amyotrophic lateral sclerosis and parkinsonism-dementia(ALS-PD) and the stigma associated with it, in the Chamorro community in Guam when undertaking epidemiological surveys in 1953 and 1987, highlights the need for sociocultural consideration in research studies. The article focuses on the sociological impact of local and scientific labelling of medical conditions and deviance on subsequent stigmatization in a small island community context. While Guam has one of the highest prevalence rates of ALS-PD in the world and the Southern communities are amongst the most studied, the level of confusion about the epidemiology, etiology and clinical presentation is high in the local community. Little information from the research over the past several decades has been communicated to the communities in which the studies were done. A thorough critique is made of the process with which the 1987 epidemiological survey of ALS-PD was undertaken. Problems included the use of local, stigmatized labelling of the conditions in the interview process, the use of non-medical personnel namely student and village volunteers with perceived potential for breach of confidentiality and significant interviewer bias, the negative impact of the media portrayal of the disorders on the community, the lack of use of consent forms, and the frank community opposition with a substantial proportion of refusal to participate. The article mentions the use of the community as a research lab by outsiders from a different group who intentionally took advantage of the confusion to undertake invasive blood drawing procedures without fully informing the community. Furthermore, little or no medical service or referral was provided for the newly diagnosed patients and therefore community members did not feel they benefited from participating in the 1987 research project. The authors mention that in order to alleviate and eliminate the methodological and ethical problems associated with the 1987 survey, more local involvement and control over research on ALS-PD in Guam is needed.

Editorial Comment: This well written and coherent article highlights several sociocultural, methdological and ethical aspects about epidemiological and other research studies that must be considered vital in the planning and implementation of any study. The importance of consideration for the local and medical labelling of conditions and the impact on the community perception of stigmatization is well stated in this article. Clearly, the apparent breach of standards of ethical conduct in the 1987 ALS-PD survey was inexcusable. Adherence to standard ethical practice in research, particularly confidentiality and informed consent are central to any study. Like any research study there is a need for attention to be given to cultural sensitization and communication with the community. The consideration of the ethical and sociocultural impact of medical research is vital for the success of research particularly in small island communities. This article should be read by all local and outside researchers intending to conduct studies in the Pacific so that mistakes made by the 1987 ALS-PD survey in Guam as documented by this article, are not repeated elsewhere.

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Problematizing impairment: cultural competence in the Carolines

Marshall M. *Ethnology*. 1996; 35(4):249-63.

This article discusses the concept of impairment within the sociocultural milieu of Namoluk community and the Caroline Islanders. Marshall contends that limiting the concept of impairment to those chronic or permanent conditions in which the person is socially isolated would be appropriate. In the Caroline Islands, specifically Namoluk, even serious physical impairment is not considered a disability if the person with the impairment can maintain social interactions and make significant contributions to household and community wellbeing. However, it is the psychological and mental conditions that affect a person's ability to contribute meaningfully to community life which are generally considered disabling. The lack of mental and social competence in such

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persons in some way vindicates them from being held morally and socially responsible for their actions; such individuals may even be children who have not yet developed a level of understanding and sophistication in verbal expression. Disabled persons include chronically mentally ill, old people suffering from senile dementia, and possibly deaf and mute persons. Behavioural conformity and control of aggression appear to be vital to successful living in these small island communities. Belief that diseases and such disabilities are the result of spirits or supernatural forces is still widely held in Namoluk and Chuuk atoll. Anecdotal examples are used to illustrate the concept of social competence and the labelling of disability within the Carolinian context. He notes that truely disabled persons in the Carolines are few and that the vast majority of the mentally disturbed are more likely to be male. A greater understanding of the gender differences is necessary for the development of culturally appropriate prevention and treatment programs.

Editorial Comment: This article documenting some of the cultural perpectives of disability and impairment in the Federated States of Micronesia is thought provoking and supports the tenet of the previous aforementioned article about the necessity for ethnocultural consideration when labelling persons diseased, impaired, disabled or incompetent. The article written for ethnologists and social anthropologists has particular relevance for health personnel particularly researchers in the field of disability in the Pacific. The community's view of a particular disease entity is paramount to shedding light on these disorders and can be incorporated through interdisciplinary research by transcultural psychiatrists, medical anthropologists and other medical researchers. While the article may be a little long for the average health practitioner, it is very interesting, well researched with literature from other anthropologists' interwoven into the script, and aptly discussed with factual examples from these local communities. Given that there are many similarities yet some vast differences between many small island Pacific cultures, it would be interesting to study the perception of disability and impairment in other Pacific communities. One suspects that the differences between the Carolinian perception and that of other Pacific island cultures will not be that vast at all.

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Effectiveness of control for pneumonia among children in China and Fiji

Shimouchi A, Yaohua D, Zhonghan Z, *et al. Clinical Infectious Diseases*, 1995; 21(S3):S213-7.

This is a summary of the World Health Organization's standard case management program for pediatric pneumonia, specifically the control of acute respiratory infections, conducted in Fiji and China. The article discusses the success of the program in the Western Division of Fiji in training medical doctors in the case management of patients with a cough, in the education of mothers in early recognition of danger signs, and in the monitoring of antibiotic usage through case record review. The results noted that the percentage of patients with pneumonia with fast breathing and/or chest indrawing who presented to clinic early(<3 days) increased over the period of study corresponding to greater awareness by mothers of the need for early medical attention. Furthermore, the percentage of children with acute respiratory infections younger than five years who were treated with antimicrobials significantly declined over the three year period of the program with greatest reduction in antibiotic usage observed in the treatment of cough and cold, and an increase in antibiotics in those suffering from pneumonia. In China, a similar program was undertaken with additional monitoring of mortality through review of death records and interviews. The decline in total mortality rate, pneumonia-specific mortality rate, total mortality among children under five years of age and pneumonia-specific mortality rate among children under five years during the period of 1986 to 1990 in the three counties studied were statistically significant. Constant supervision improved the case management of acute respiratory infections and showed that the program can be implemented with an effective outcome even within the current existing health care systems of developing countries.

Editorial Comment: This succinct, easy to read article, focuses on the success of WHO's standard case management program for pediatric pneumonia in a local setting in Fiji and highlights the improvement in early medical care, decline in indiscriminate use of antibiotics for cough and cold as well as the decline in mortality associated with acute respiratory infections in counties in China. The article presents several compelling tables and figures, highlighting its statistically significant impact. While several other studies document the decline in mortality with the implementation of this program, few document the decline when there is passive casefinding using the parents of the children, highlighting the success of health education. Clearly, there has already been a significant impact on global well-being of children with the implementation of this WHO program, which has been coordinated in most member countries. Program managers must maintain a sense of momentum, awareness and devotion to ensure

sustainability of the program and long term impact on the health of all children in the region. Institutionalising the program within the curricula of the regional nursing and medical learning institutes also further facilitates sustainability in ongoing cohorts of medical personnel. Continuously implementing health education in all communities and among peripheral health workers in the regional countries would also aid the program's sustainability.

Prevalence of diabetes mellitus in New Caledonia: ethnic and urban–rural differences

Papoz L, Barny S, Simon *et al. American Journal of Epidemiology.* 1996; 143(10):1018–24.

Diabetes Mellitus screening was undertaken in both rural and urban communities in New Caledonia in adults aged 30–59 years of age. The first step involved screening of the target population to identify known diabetics as well as persons with blood glucose levels above 110 mg/dl for fasting subjects and above 140mg/dl for nonfasting subjects. The second step involved a two hour glucose tolerance test to verify diabetes diagnosis using standard WHO criteria. A total prevalence of 8.4% was noted after correction for false negative subjects with 219 previously known diabetics and 271 new cases of diabetes detected.

Large differences were noted between the ethnic Polynesians who had the highest rates and Melanesians and Europeans whose rates appeared more similar. Greater rates were observed in Melanesians living in urban areas than those living in rural areas even after adjustment for age and body mass index using logistic regression analysis. The article states that the diabetic screening service needs to be expanded because the level of the undiagnosed prior to the survey is high. The increased risk in migrants from Polynesia is well documented and the urban shift in Melanesians presents special problems of increase in risk factors. The article also noted that the prevalence level among Europeans living in New Caledonia is about three times the level of Europeans living in France.

Editorial Comment: This report of the epidemiological study to document the prevalence of diabetes in New Caledonia is well presented, precise and easy to understand. Statistical analysis is straightforward and results appear internally consistent. However, a diagrammatic algorithm may have helped better visualize the two step screening procedure and the sample sizes at the successive steps. It appears that the sensitivity of the initial step of the screening using blood glucose levels in subjects not previously diagnosed as diabetics is low, an estimated 43%. Although the authors corrected for the lack of sensitivity in the calculation of the prevalence rates, one may have felt more comfortable if this validation and correction was explained in more detail perhaps in the form of an addendum or in the body of the discussion text.

Serum lipids and modernization in coastal and highland Papua New Guinea

Hodge A, Dowse G, Erasmus R, *et al. American Journal of Epidemiology.* 1996. 144(12): 1129–42.

A study of the lipid profiles in Melanesian communities in coastal and highland Papua New Guinea was undertaken to determine whether serum lipids levels were worsening in parallel with the increasing emergence of Coronary Heart Disease. Previously, serum lipid levels were noted to be low in Melanesian persons living in Papua New Guinea. This population-based health survey was performed in 1991 in adults older than 24 years residing in three coastal and highland villages at different phases of modernization. Blood lipid levels were measured, body mass index calculated and interview information collected on degree of modernity. Results reveal that the total cholesterol was consistently highest in those residing in urban coastal Koko village and lowest in those residing in the rural and most traditional highland villages. The prevalence of hypercholesterolemia was 16% in rural highlanders and 56% in urban coastal dwellers. HDL levels were highest in the most traditional coastal village of Kalo. Diagrammatic figures reveal that total cholesterol and triglyceride levels increased signficantly with tertiles of body mass index in the subgroups of coastal and highland men and women. Similarly, the cholesterol levels also increased significantly across tertiles of the modernity index in coastal and highland men and women. Total cholesterol levels were significantly higher in those with less physical activity among coastal men and women and highland men. In analysis of variance, age, body mass index and village were the most predictive of lipid profiles. This study suggests that the modern living Melanesians in Papua New Guinea may be at increased risk for cardiovascular disease. Coronary heart disease appears to be emerging as a significant cause of morbidity and mortality in Papua New Guinea as the nation undergoes epidemiological transition and increasing modernization. The authors state that the earlier hypothesis that Melanesians might be genetically protected from dyslipidemia is no longer sustainable.

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Editorial Comment: This article documents detailed results of the study which are displayed through several clearly presented tables, interesting figures and internally consistent

text. The statistical analysis appears appropriate, namely the ANOVA for normally distributed variables, the nonparametric Kruskal-Wallis for medians of physical activity, the log transformation of the triglyceride distribution and the multivariate analysis. Given that parallelism assumption is satisfied, then the analysis of covariance also would be appropriate. Rural highland men had a response rate of 66% which would be a problem of those that did not respond were consistently different in their lipid profiles and other risk factors compared to those that did. Also it is unclear to me whether using fasting blood glucose for lipid analysis in those residing in coastal areas and post-glucose tolerance test samples for lipid measurements in those from coastal areas would present a problem in terms of reliability of data, as ideally one would like the samples to be as comparable as possible. However, despite these, it is interesting that although the subgroups sample sizes are small, there are still several statistically significant results highlighting the importance of these results. This excellent article should be read by all those working in the field of Diabetes in the Pacific, particularly researchers and program managers.

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Medical education reform in South East Asia: WHO perspectives

Rafei U. *Medical Education*. 1996. 30:397-400.

This article was written by the Regional Director of WHO, South East Asia Region, on the South East Asian Regional Conference on Medical Education: Pattaya, Thailand, on February 7-9, 1996. Recognition was made of the mutual dependence of medical education and health services in the region and the role that medical schools must play in shaping the development of the health services in each of the member countries. There were four different areas of concern which appear to shape the health services. The demographic transition with aging of the population and the decline of communicable diseases with increasing urbanization will put strains on the health care infrastructure. Economic changes with rapid globalization and privatization of health care will marginalize the poor; therefore, medical schools are being urged to encourage the health for all concepts through their medical education movements. The interference of the natural environment and the rapidly developing sophisticated technology are resulting in vast changes in health care practice. A brief history of the development of medical education and WHO's involvement is made. The meetings and significant efforts undertaken for reorienting medical education towards making it more appropriate for the countries local health needs appear to have resulted in dramatic positive change. A major achievement highlighted was the development of community-based activities and problem-based learning with competence-based designs, using priority health problems including content from social sciences, epidemiology and health services research. Major concerns are maintaining relevance and usefulness in a rapidly evolving health care system, and the importance of consideration to medical ethics. The author urged medical schools to train doctors who are more holistic in their approach to health care; ie clinicians with a sense of leadership and developmentalism. The author also urged them to encourage the team approach and the importance of medical schools developing partnerships with health professional organizations and managers/policy-makers. The article stated that the doctor of the future will need to be a general practitioner who is basically a clinician, practising in the social epidemiology context, who will provide continuing comprehensive health care to individuals and communities, and be able to manage the health care system as required.

Editorial Comment: Efforts made for medical education reform in the SouthEast Asian Region reflect a global pattern that has swept other medical educators all over the world. The development of a programs that foster the growth of medical doctors who practise continuing comprehensive health care in their community, with a sense of sociocultural sensitivity and an awareness of medical ethics, is also a Pacific trend. The efforts made at the Fiji School of Medicine with the innovative, problem-based learning program of the new MBBS course is a strategy to ensure that medical doctors trained in the Pacific are the best doctors for the Pacific Island peoples. Similarly, the Pacific Basin Medical Officers Training Program of the University of Hawaii had the same mission. We need to maintain the momentum as well as strengthen our efforts and support to ensure that the type of medical doctors, trained at our regional medical institutes, reflect the needs of the health care systems of the nations as well as the communities in which these doctors will serve.

Gender in medicine: the views of first and fifth year medical students

Field D, Lennox A. *Medical Education*. 1996; 30: 246-252.

This article describes the results of a study undertaken amongst first and fifth year medical students at the University of Leicester Faculty of Medicine. It explored the role of gender in career choices of medical students and their ability to achieve career goals. While half of all medical students preferred to practise hospital medicine, females were more likely than men to choose general practice. The most influential factors affecting decisions regarding career choice were interest in their specialty and exposure during training. Both females and males rated time for family commitments equally important. Most students felt that gender did not affect their ability to achieve their personal career goals, although many students perceived a general effect of gender on the possibility of achieving goals. Being female was perceived as being a disadvantage in general among male and female students. Some females appeared to be affected by domestic responsibilities and the discrimination against them. Of students who felt their clinical exposure had a negative impact on their career choice, surgery was the most common cited by 40% of those females and 30% of those males. The authors stated that inequality in opportunity persists and that available specialized part-time training opportunities need to be publicized. The fact that both males and females considered time for family as important reflects changing expectations which need to be considered in recruitment and deployment.

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Editorial Comment: This qualitative research appeared to be conducted in an objective manner and analyzed with an interest in shedding light on gender issues that may need attention during medical training in all medical schools. The increasing number of females successfully completing medical school in the Pacific is encouraging. An analysis of current trends and patterns of practice after graduation as well as attitudes to practice by male and female students in the Pacific would be extremely interesting and may enable the development of postgraduate opportunities for both.

Cultural diversity in Australian medical education

Klimidis S, Minas I, Stuart G, *et al. Medical Education*. 1997. 31: 58-66.

This report documents a study which was conducted to investigate the importance and influence of cultural diversity on learning in medical students in Australia. A survey of 110 students in the fourth year of their studies involved a questionnaire with 78 items measuring cultural dimensions of individualism/collectivism, uncertainty avoidance, power distance and masculinity-femininity. Individualism/collectivism was a measure of the effect of one's actions on a group, suppression of extreme emotion to preserve group harmony, maintaining a public image and respect for group leaders or elders. Uncertainty avoidance was a measure of preference for structure, predictability and clarity. Power distance measured respect expected from patients and given to tutors etc. Masculinity-femininity dealt with aggressivity versus nurturance motives in actions. Results showed that Asian students had higher scores than Anglo-Australians on group affiliation and co-operation, expressed the need for structure and respect for superiors more than Anglo-Australians, and valued suppression of strong emotions to preserve composure and harmony in a group. Asians were more likely to report "achieve high social status" as a reason for enrolment. Scores also revealed that Asian students were having more difficulties with studies on a scale involving Unsuccessful Learning Practices. Specifically, they experienced greater levels of difficulty in achieving their learning objectives with greater expended effort, lack of adequate organization and lack of satisfaction with achievements. Asian student also appeared less confident in their patient interactions. In order to ensure a successful learning experience is achieved for medical students, cultural factors must be considered important in the educational setting.

Editorial Comment: The authors of this article clearly report this survey undertaken at the University of Melbourne which utilized an instrument based on Hofstede's theory of cultural dimensions. Its application to a medical education setting allowed the elucidation of a number of cultural factors affecting students' learning experience and relative success in the Australian setting. The methodology and statistical analysis appear sound, with significant efforts made to ensure adequate construct and validity of the instrument is achieved. Medical educators in the Pacific may find this article highlights a number of cultural themes that may be relevant to understanding successful learning experiences in Pacific-based institutes such as the Fiji School of Medicine and the University of Papua New Guinea Faculty of Medicine. □