Community Health

Joanne Y. Yamada, Herbert Yee, Maureen Fitzgerald, & Gary Okamoto

Community education on stroke

A programme of community education on stroke in Micronesia is based on the use of brightly illustrated posters with a limited content of written material in the native languages. This approach has been favourably received by the people.

Many Micronesians who once subsisted on root vegetables, coconuts, fresh fish and green leaves now purchase up to 90% of their food in the form of rice, bread, sugar and tinned meats with a high content of fat and salts. In the Marshall Islands, villagers who move into urban areas have little protection against poor nutrition. They are seduced by advertising, attractive packaging and the convenience of packaged foods. The adverse consequences for health are exacerbated by low incomes and the rapidity of population growth and urbanization.

The health of Marshall Islanders has declined since the Second World War. Obesity has become widespread and there have been increases in the prevalence of diseases related to poor life-styles, such as cancer, diabetes, and cerebrovascular and cardiovascular diseases. A similar situation exists in other Micronesian communities. Although ill health can, in part, be attributed to Western influence, there are also other factors. For example, heaviness has traditionally been viewed as an indication of health and associated with wealth and status. Furthermore, there appears to be a genetic propensity for Pacific islanders to store fat. It has been postulated that this was beneficial during their migrations because it protected them against famine during long sea expeditions or following hurricanes (1). However, this trait is now detrimental to Micronesians as they no longer experience periods of famine.

Poster initiative

Indigenous paraprofessional rehabilitation technicians, trained by the Pacific Basin Rehabilitation Research and Training Center, were the first to recognize the need for preventive action, and in 1989 they requested materials that could be used to educate patients and their families on the most common diagnoses. A pilot poster package on cerebrovascular accidents was
created by the Center for Majuro in the Marshall Islands. It consisted of 13 poster designs with texts written in everyday language. The subjects included the identification of the control zones of the brain, the signs and symptoms of stroke, differences between left- and right-sided strokes, and the rehabilitation process.

The materials were translated by a Marshallese, and the rehabilitation technician on Majuro was trained to use them in community presentations. An evaluation of the pilot scheme indicated a favourable reception because of the use of the indigenous language. However, as the evaluation was in English and required written responses it was incomplete and possibly inappropriate.

**Oral tradition**

The shortcomings can be linked to the oral tradition of Micronesian societies, which also affects other areas of health service delivery, such as data-tracking for persons with disease and disability. However, a grounding in data-tracking has enabled the rehabilitation technicians to establish a record-keeping system that helps to assess training requirements in relation to patients’ needs. In 1990 the records showed that 350 stroke patients had received rehabilitation treatment from the technicians; 75% of these patients were males with an average age of 43 years. The 1990 data confirmed the need for a low-cost community education strategy that was appropriate both culturally, with respect to people’s beliefs and behaviour, and environmentally, bearing in mind the existence of small villages without electricity.

Following the confirmation of need the 1989 materials were critically analysed. It was clear that culturally and linguistically appropriate materials helped towards creating a more successful presentation. In essentially oral cultures, written materials can give an impression of artificiality and may inhibit discussion (2). Innovative education for developing countries should take local cultures and contexts into account. In cross-cultural training the use of audiovisual materials is preferable to lecturing (3).

**Relaunch**

The analysis of the 1989 project suggested that maximum benefit would result if the materials were recreated using more illustrations and less textual content. Because electricity was not available in some remote villages it was decided to continue using posters in bright colours. However, the number of poster designs was reduced to six and a shorter text was translated by rehabilitation technicians. The translations were computer-generated, enlarged and arranged in a poster format along with the graphics produced by the Center’s staff.

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The posters give information on stroke, its causes and prevention, and the rehabilitation process. For example, one poster shows a man with partial paralysis, and the accompanying text, in the appropriate Micronesian language, outlines risk factors
such as hypertension, previous stroke, obesity, smoking and heavy alcohol use. Another poster shows a brain with an enlarged blood vessel. A third carries the words: “Some ways the flow of blood to the brain can be blocked”, and an accompanying illustration shows a blood vessel with a blood clot, another with atherosclerosis, and a third that is bleeding. A poster is devoted to the roles of local health practitioners in the clinical management of a patient.

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Another indicates the stages of recovery and rehabilitation of a patient who has had a stroke. The use of traditional foods, such as taro, and of alternative cooking methods is encouraged by means of culturally appropriate illustrations. The need for dietary change is explained in connection with the control of blood pressure. The final educational activity is the actual measurement and recording of people’s blood pressures, the object being to create awareness as well as to detect and refer individuals at risk.

The materials were presented by rehabilitation technicians on Chuuk (formerly called Truk), Pohnpei, Yap and Kosrae in the Federated States of Micronesia, on Ebeye in the Marshall Islands, and in the Republic of Palau. The technicians received guidance on the materials from staff attached to the Center and were provided with background information on stroke and its prevention. The presentations were announced a few days in advance on the radio. On Chuuk and Kosrae they were made at rehabilitation clinics. Twenty community members attended on Yap, 40 on Chuuk and 25 on Kosrae. On Pohnpei and Palau the programme was presented to about 90 people in village meeting houses. The local languages were used in all instances. The people’s questions, constant attention, and willingness to have their blood pressures taken indicated their considerable interest in the materials.

Although no long-term evaluation of the presentations has yet been possible, there are already indications that culturally and contextually appropriate poster material can be effective in increasing knowledge and may have an impact on short-term attitudes. It is to be hoped that the presentations will change behaviour and reduce the numbers of Pacific islanders suffering from stroke. The project could well contain useful lessons for communities in other remote areas.

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References