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CULTURAL ASPECTS OF INFANT UNDERNUTRITION
AMONG THE LUJERE PEOPLE OF PAPUA NEW GUINEA
A NURSING PERSPECTIVE

A THESIS PRESENTED IN PARTIAL
FULFILMENT OF REQUIREMENTS FOR THE DEGREE
MASTER OF ARTS (SOCIAL SCIENCES)

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ABSTRACT

A field study of five months has been undertaken to determine the causal or predisposing factors related to the prevalence of undernutrition in the Lujere infants and children of Papua New Guinea. Strategies used in the field study include:

- . visiting eight venues and weighing infants from fifteen villages at regular intervals, variation in the weighing schedule occurred and are discussed
- . participant observations which incorporated unstructured interviews and ethnographic recordings.
- . the maintenance of a daily journal, in which all activities and cultural interactions related to the study were noted, has been used as a basis for the descriptive sections of the field study.

An anthropological and a nursing perspective has been combined into a "transcultural" nursing approach.

The results obtained through these field work strategies show: of 477 infants regularly weighed 27.25% of the infants were seen as well nourished and 72.75% suffered from undernutrition in varying degrees. 19.25% of the undernourished infants were deemed to suffer from severe undernutrition.

Causal factors for the high percentage of undernutrition were seen to be related to:

- . insufficiencies in subsistence patterns mainly due to climatic factors which govern when hunting, gathering, fishing and gardening activities take place.

- . the well developed cultural patterns which determined what portion of the available foods were given to infants and children, and when it was culturally acceptable for them to be given

- . incongruity in relation to health care delivery between the care givers and receivers. The dominant features here were the two different philosophies of causality and treatment of disease. This incongruity generally tended to prolong the duration of undernutrition experienced by Lujere infants and children.

These factors need urgent attention and it is recommended that, together with health care givers, the Lujere people need to become aware of and encouraged to use community self care. This self care should amalgamate salient aspects of their own care ideas with prominent aspects of the western health care system.

PREFACE

This study stems from personal experiences the author has had as a missionary nurse in various provinces of Papua New Guinea from 1962 to 1972. One of the major concerns the author had during this period was with the nutrition of children under five years of age.

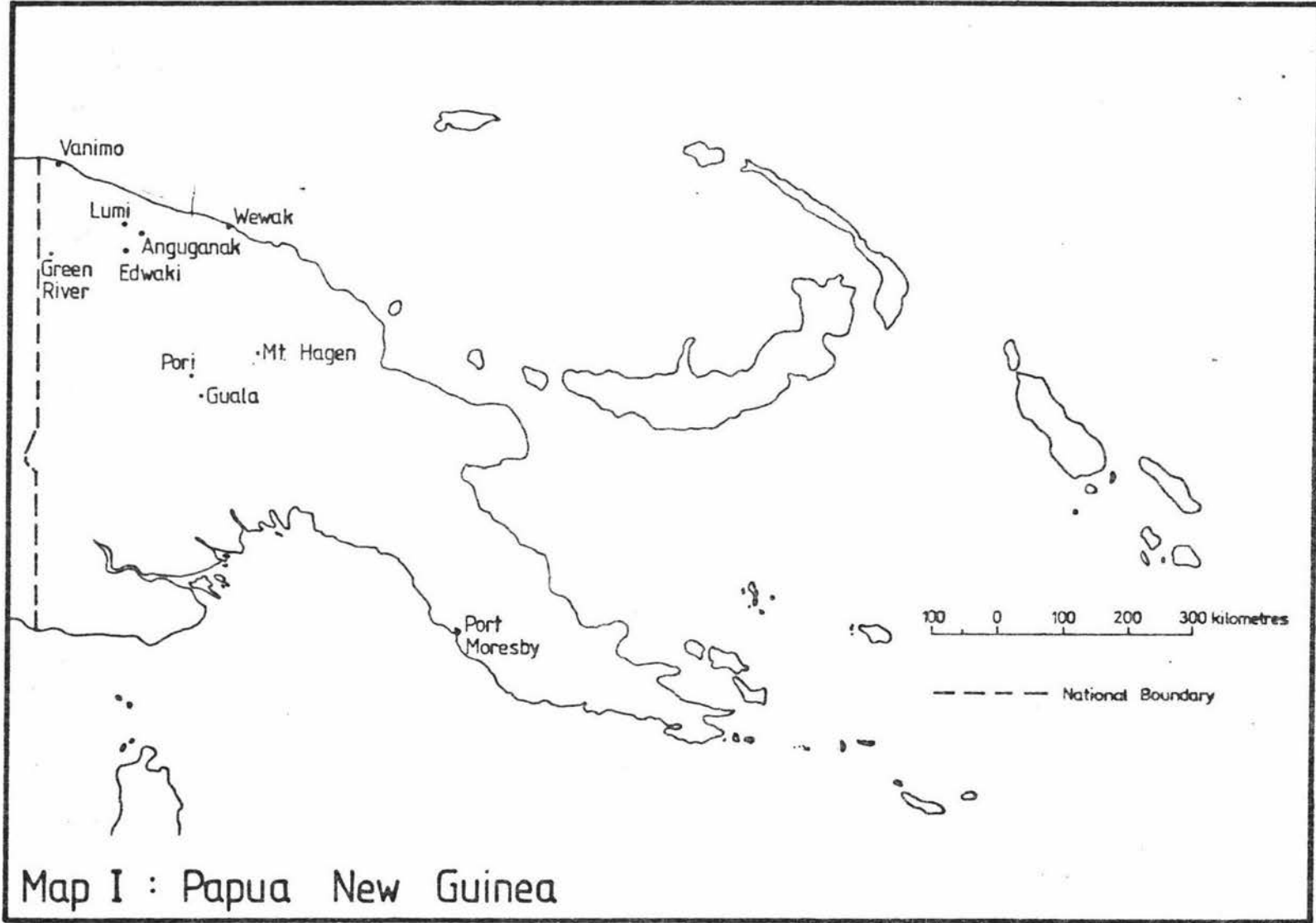
In Papua New Guinea, work was undertaken as a nurse with the Christian Missions in Many Lands, a missionary organization which is an outreach movement of the Open Brethren Assemblies. As a missionary nurse, monthly patrols were made to villages in remote areas of the Western Sepik and Southern Highlands provinces, giving Christian instruction and conducting infant welfare clinics. The latter activity was carried out under the guidance of the Department of Health, Papua New Guinea. During these ten years work was based at Anguganak, Green River, Yellow River (Edwaki) and Lumi in the West Sepik Province and Guala and Pori in the Southern Highlands Province. Map 1 gives the locations of these settlements.

Whilst based at Anguganak 1963-1964, the author assisted Dr Sturt with research related to infant mortality. In 1968 Dr Sturt, along with co-author Dr Stanhope, published a paper "Mortality and Population Patterns of Anguganak", in The Papua New Guinea Medical Journal.

At Lumi 1977-1978 similar assistance was given to Dr Wark who wrote, with co-author Dr Malcolm, "Growth and development of the Lumi child in the Sepik district of New Guinea". This was published in 1969 in the Australian Medical Journal.

A transfer was made in 1973 to work for the Department of Health as a nurse tutor, at first at Mt Hagen Community Hospital and then at Mt Ambra Aid-post Training School.

1- Map 1 is adapted from a Map included in Sturt 1982



The purpose behind this change was to train others who could, in turn, help alleviate undernutrition and other health problems.

In 1973 the author published a paper in the Tropical Doctor, entitled "Beliefs of the Wapei people about conception, child birth and early childhood".

In 1974, after twelve years of monitoring the health of infants under five years the author returned to New Zealand. The author took with her a marked feeling of dissonance between:

- the nursing/health activities which were carried out to encourage families to improve the nutritional status of their infants
and
- the unknown variables associated with the incidence of undernutrition.

This deep feeling of dissonance promoted the desire to develop skills which could help the investigation of the nutritional aspects of infant rearing, and, as well, develop effective and appropriate nursing interventions. A desire to increase knowledge and understanding and, in addition develop research skills led to the commencement of studies at Massey University in 1975.

It was during university studies that the author came to understand the principles of the transcultural nursing which she ^{had} unwittingly, ^{had} been practising for many years. As nursing and anthropology were integrated while giving nursing care. Study at university made it possible to read much on the subject and to relate this knowledge to previous experiences.

A definition that has proved to have relevance in the author's understanding of transcultural nursing practice

is that of Brinks (1976):

Transcultural nursing is the fusion of nursing and anthropology in both theory and practice. Nursing is an active profession, it does things to, for and with people. It is the clinical component that makes transcultural nursing NURSING and the cultural component of clinical practice which makes it transcultural, both components must be present. (p. 182)

Following completion of undergraduate studies in nursing, plans were made for a programme of graduate research, specially focused on the problem of undernutrition in Lujere infants.

Locating the Research Area

During the year 1980 preparation began for a return to the West Sepik province of Papua New Guinea. By this time, the sense of dissonance experienced had turned to a compulsion to enquire into the hidden variables (now believed to be socio-cultural factors) that were affecting the nutritional status of Lujere infants under five years of age.

The Christian Missions in Many Lands, previous Papua New Guinea employers, were contacted regarding a study. In response they recommended that there was a need to do such research with the 3,000 Lujere people who lived in fifteen villages near the Edwaki Health Sub-centre. Map I shows Edwaki in relation to the Christian Missions in Many Lands head office at Anguganak, and ^{its proximity} to Wewak the nearest urban town of some size.

Arrangements were then made for the author and Ms Martin, an M. Phil. student from Massey University to spend five months, January to May 1982, surveying health and, in particular, the nutritional aspects of rearing infants

under five years of age. On December 19, 1981 the team flew into the Yellow River Mission airstrip, and commenced village visiting on January 4. There were fifteen villages in the study and by May 28 thirteen had had five visits and two had had four visits. Subsequently, a return was made to New Zealand via Australia. It is pertinent to note that this brief diversion to Australia provided the opportunity to discuss certain of the research findings with others who had experience in this field.

They endorsed the need to put these findings on paper in the form of a research report.

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For their administrative support, help and unending practical support which made the sojourn in Papua New Guinea possible, my thanks are expressed to the

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GLOSSARY

- Ecology: The scientific study of the inter-relations of living organisms and their environment. (Miller & Kean 1962 p. 229)
- Ecosystem: The interaction of all living organisms, such as humans, flora, fauna, micro-organisms with each other and with the physical environment, and terrain. The important factor which governs the survival of all living organisms is the movement of food through the system.
- Ethnographic recordings: An ethnography is a factual description of the way of life of a specific group of people. (Leininger 1970 p. 12).
- Health beliefs: Health is situational that is, it is related to what a people believe to be fullness of life for them. It is an expression of qualities to which they give value. Health is evaluated by many criteria drawn from every corner of a people's life. (Wilson 1975 p. 55)
- Health-illness: Health is a word related to the quality of human life in ecological terms, that is, it is not just an individual quality, but is related to life lived together in harmony with the environment. (Wilson 1975 p. 60)
- Illness therefore, is related to a break-down in the quality of human life due to a measure of disharmony with the environment.

- Horticulture:** The science of gardening for the production of fruit vegetables and flowers. The Lujere use the rotation of soil method and is referred to as bush fallow, or shifting cultivation or slash and burn. The Lujere gardening technique involves - felling of trees, leaving the area to dry out, burning of the dried grass and timber, planting, caring by spirits, then reaping.
- Human relations dimension:** This dimension of care involves the nurse or any other health care practitioner being aware of the clients psychosocial needs and the cultural variables which determine illness behaviours.
- Hunting and gathering:** Hunting is the pursuit of wild game (animals and birds) by tracking, chasing or watching and waiting. The Lujere hunting tools are the bow-and-arrow with an occasional use of the gun.
- Gathering is foraging for wild foods. The Lujere use three types of activities, picking and digging fruit and vegetables and catching or digging for insects and lizards.
- Kwashiorkor:** The primary cause is a diet low in protein but which does contain some calories. The four constant features of kwashiorkor are - oedema, growth failure, muscle wasting with some retention of subcutaneous fat and psychomotor changes. (adapted from Jelliffe 1968, p. 122).

Marasmus: The primary cause is a diet low in protein and calories, often resulting from too early cessation of breast feeding. The two constant features of marasmus are growth retardation and severe wasting of muscles and of subcutaneous fat. (adapted Jelliffe 1968 p. 135).

Medicine man: 'Nakwaru' (Namie) 'Sanguma man' (pidgin)
In Lujere culture and Namie language, shamanism and witchcraft are combined in the person of the 'Nakwaru' whose dual status as a shaman-witch is expressed in his role of curing and killing. (Mitchell 1977 p. 7)

Nutrition: The sum total of all the operations when a living organism takes from the environment what is needed for fuel growth and repair of tissues (May 1974 p. 32). This implies a consideration of several phases:

- food science - the value of available food...
- nutritional physiology - nutritional requirements...
- and
- clinic nutrition - abnormalities resulting from improper food supply..
- public health nutrition - nutritional surveys, nutritional education and supplementary feeding (Wadsworth et al 1972 p. 1).

- Participant observations: These are performed by being in social settings where the researcher participates and observes for the purpose of gathering data relating to the interactions which take place.
- Patrolling: The organizational strategy used in Papua New Guinea for administering health and other services to urban communities. To patrol is to visit villages for routine inspections or infant welfare clinics as in this thesis.
- Silvaculture: A set of interrelated activities directed towards the establishment and maintenance of a permanent association of tree bearing edible materials in areas previously dominated by association of other plants (Rappaport 1967 p. 55).
In other words it means the deliberate planting of trees for food.
- Subsistence: An interaction with the environment primarily for providing for the living needs of oneself and one's family rather than for the purpose of marketing.
- Traditional values: This is any concept referring to a desirable or undesirable state of affairs (Spradley and McCurdy 1975 p. 47). The world has values including health and caring values. (Leininger 1978 p. 9)
- Transcultural nursing: This is the fusion of nursing and anthropology.

Nursing is the clinical component and is an interpersonal process with nurturing interactions by the nurse to the client. These interactions are ones of mutual acceptance and trust.

Anthropology is the cultural component. It is having an understanding of a community's beliefs, values, and attitudes which govern customs, and moves expressed by behavioural patterns.

World View:

This is a way a culture tends to look out on their world and the universe.... It can provide the nurse and other health personnel with a general overview of how people view life, health and illness and those who give and receive care. (Leininger 1978 p. 94)

Undernutrition:

This is the pathological state resulting from the consumption of an inadequate quantity of food over an extended period of time. (Wadsworth et al 1972 p. 49)

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