ORIGINAL ARTICLE

Planning, Implementation and Problems of Breast Feeding and Infant Nutrition In North Sulawesi

by

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ABSTRACT

The effects of nutrition on infant growth and development are put forward. In Indonesia, there are variations in infant feeding practices. Government's nutrition promotional efforts are set forth. In North Sulawesi, there is no shortage of food. However, ignorance is prevailing. Shortage of Puskesmas program executors is another handicap. Lack of breast feeding and infant nutrition knowledge among mothers attending Manado's general hospital was ascertained. A better health and nutrition education program inherent to a particular community is deemed necessary. To gain success, the doctor must have sufficient background in public health and methods of organizing a primary care program. A devoted personnel is a must.The Village Community Health Development Program and Village Nutrition Program must grow from the community. Material assistance is equally important.

Received 10th November 1982
Presented at the Travelling Seminar on Breast Feeding and infant Nutrition, Denpasar, Bali, 2 – 3 September 1982.

We all agree that nutrition is the most important factor influencing infant growth and development and it follows inevitably that nutritional effects during infancy are of prime significance. More than half of the children of the world (Dogramaci, 1976), however, are undernourished and although the problem of inadequate nutrition is ubiquitous it assumes a far greater significance in the developing countries. It contributes to sickness and death, besides producing poorly functioning succeeding generations. Ignorance and poverty contribute to these adverse conditions and make their alleviation very slow. Protein Calorie Malnutrition is a huge subject of great importance but of vast complexity (Biddulph, 1978). In respect to the development of the nation, implications of malnutrition in early life are ominous.

In a country like Indonesia, consisting of more than thousand of islands, there are considerable variations in infant feeding practices from one region to another region and from urban to rural areas due to the diversity of ethnic, cultural and educational backgrounds of the population. Around 30 % of those underfive suffer from a mild to moderate degree of malnutrition and 3 % are found to be severely malnourished (Tumbelaka, 1981). In North Sulawesi, available data indicate a magnitude of 33% of those underfive being affected. Realizing its complexity, it is not a purely medical problem (Banik et al. 1973). However, one of the many reasons for malnutrition is faulty food practices.

We have to admit, that a characteristic set of variables causing malnutrition applies to each type of community. These variables are relative to the variances found in the different communities. The tremendous concern that has grown out of this ill situation at present in our country brings us together today to look for a solution rather than just looking to see where to place the blame.

Realizing the situation in this country, a Ministerial Decree (Surat Keputusan Menko Kesra) No. 12/Kep/Menko/Kesra/1979 was issued pertaining to a promotional campaign for breast feeding. During recent years, a variety of projects and programs aimed at improvement of community nutrition have been developed in our country. Both government and private agencies have been involved in the design, support, execution and evaluation of these efforts. Supplementary feeding programs, based on the mothercraft concept, with a heavy emphasis on practical nutrition education have been developed by the Nutrition Directorate of the Department of Health. Several approaches to the provision of simple health services through training of village volunteers (Indonesian: kaders) have brought primary health care to the neighbourhood level. As community motivation, participation and self help are common factors in all these approaches, it was decided to form an integrated village nutrition program on elements of each of these existing projects. Through the broader coverage of village nutrition and simple child health needs, envisioned by this new integrated program, it is hoped a more significant impact on nutrition, growth and development may be realized. Experience has shown that these desired results can be achieved in the setting of a well guided pilot project but extrapolations of the system to involve significant numbers of communities involves substantial operational uncertainties and efficacy is yet unproven.

The following is a discussion of the problems that exist with the present plan of

action and a suggested new approach to the development of organizations of PKMD (Village Community Health Development Program) and UPGK (Village Nutrition Program). All involved parties are invited to contribute ideas and suggestions that will aid the development of sound and effective programs.

The province of North Sulawesi is an eminent producer of carbohydrate and protein rich foods for its not too dense population. Citing a monograph on North Sulawesi (1972), rice, maize and cassava, previously cultivated in the traditional way, are assuming a commercial scale of production since the introduction of innovative agricultural methods. Legumes of various kinds are available for consumption throughout the year. Vegetables, in excess of local consumption, are being exported outside North Sulawesi. The National Survey on The Socio-Economy, carried out in 1964, found 21.32 kg/capita/year of fish consumed in areas outside Java, including North Sulawesi. Whereas the target to reach 2100 cal and 55 g protein/day was set at 29.5 kg/capita/year (Workshop on Food, LIPI – N.A.S., Jakarta, 1968). To illustrate this, taking the population growth into account, the demand for North Sulawesi for the year 1972 was estimated at 52.450 tons. However, in the year 1968 ± 74.600 tons were available for consumption. It was and still very hard to speak of a shortage of nutritive foods in North Sulawesi. A further note is that the average income per capita in North Sulawesi is around US$350,– which is higher in comparison with the national average of US$280,–. According to the 1980 demographic census, the population of the province of North Sulawesi was 2.115.384 in an area of 27.515 Km^2. The population density is therefore 7.688 persons/Km^2. Forty two % were in the pediatric age group i.e. below 14 years of age, and of these 32.7 % or 291.854 were underfive.

Health centers (Puskesmas) are suitable source of any community's health activities in Indonesia. The Puskesmas doctor and his staff are responsible for the Village Community Health Development and the Village Nutrition Program with their many specific activities among which is nutrition education. In Nor h Sulawesi, according to the most recent statistics, of 103 Puskesmas scattered throughout the province there are only 86 doctors. Many are in geographically isolated areas, where the problem of transportation inhibits communication. These doctors operate with a staff averaging 6 (i.e. nurse, midwife, secretary etc.), whereas ideally there should be 12. There are in some villages, presently, as many as 10 village volunteers trained and functioning as health workers. This is encouraging but still out of our goal. All this illustrates the shortage of medical personnel and their staff as program executors.

Pediatric Clinic of Gunung Wenang General Hospital, Manado, has conducted a study and inormative data have been complied on breast feeding and infant feeding practices in Manado which should serve as a stepping stone for further inquiry in an effort to improve the nutritional status of our children. Two hundred and eighteen childrearing mothers were interviewed from March 1980 to May 1980 according to a prepared questionnaire about breast feeding practice. It was observed that 95 % of the infants were breastfed for at least a few weeks. Around half of the mothers started breast feeding as a result of traditional parental advice, and another half did it for intentional birth spacing purposes. The role of professional medical personnel in promoting breast feeding turned out to have been very minimal. The duration of breast feeding varied considerably. It was noted that around 50 % of the infants were breastfed up to the age of one year after which the frequency showed a gradual decline to 15 % at two years of age. The mean length of breast feeding period was 11 months. The reasons put forward by mothers for stopping breast feeding were many. The most notable being: the child was too big to be breast fed, the breast milk had become sour and on doctor's advice. Lack of breast feeding knowledge was reflected by the above reasons. The duration of breast feeding was found to be a definite inverse relationship to the age of the mother, her educational level, and the economic status of the parents. Questioning another group of 414 mothers, from February 1981 to August 1981, with infants between the ages of 6 and 24 months in another study on artificial feeding and supplementary foods disclosed the following. One third of the infants were given milk formula for a variety of reasons, whereas nearly one fifth did it on doctor's advice for which reasons were not known. Scanty milk secretions, working mothers, refusal by the child and pregnancy were other reasons given. The use of inappropriate milk formulas and faulty preparations were frequently practised. In one fifth of the cases, weaning with semi-solid foods was done below the age of three months. The addition of solid foods was delayed in one fifth of the cases beyond the age of one year which was the chief reason for the occurence of starvation at the breast. In more than half of the cases, rice alone formed the commonest solid food given. This information indicates an erroneous knowledge of the nutritive value of diets and child rearing practices which necessitated us to implement a better health and nutrition education program.

An infant feeding program could hardly be set up to hold true for the whole country, but instead particular programs should be generated for particular regions suited to the local situations and conditions. Some foods will have more importance than others because of culture and traditions, local beliefs and customs.

It is worthrecalling, that the use of the National Family Nutrition Program as a practical tool for the implementation of these more specific programs needs continuous supervision and evaluation of its work, if so, that it does not only exist as a structure. A program where a doctor is the only person who completely understands the concept of Breast Feeding and infant Nutrition Program is one built on a very tenuous foundation. Seeing how most doctors do not have sufficient background in public health or methods of organizing a primary care program, it cannot be automatically assumed that a new doctor will carry on with the program. The program tends to deteriorate after the doctor has left his post. Doctors are recommended to initiate health education programs on the importance of breast feeding and protein rich foods, for health personnel, village volunteers, mothers, fathers and school children (Mordi, 1974). Stress should be laid on the fact that the devoted personnel with sufficient knowledge in all aspects of breast feeding and infant nutrition are needed for the achievement of these objectives. In spite of its great importance, nutrition has unfortunately been greatly underemphasized in medical education, both at the undergraduate and postgraduate level. Furthermore, education in medical sdhools should vary with the magni-

tude and specific nature of the nutrition health problems in the relevant community. It should also be an integral part of postgraduate training programs.

Summarizing the local situations as mentioned above, some suggestions could be put forward. Since the desired goal of Village Nutrition Program is the development of a training, supervisory and evaluative capacity on the part of the provincial health service that will allow for the promulgation of primary health care throughout the province, the Village Community Health Development Program and the Village Nutrition Program must remain a community based effort that grows out of a community desire to improve the level of health. Thus, for its success, it must be a program that grows from the community and is not imposed on the community. While the community can supply the desire, some degree of resources (primarily human resources) and the willingness, it remains for the health service to provide training, technical advice and support.

No health program, no matter how basic, can exist without some degree of material assistance. Most programs suffer from too little material support. However, it is possible to destroy a program's validity by oversupplying it, especially when we are looking at the prog am as a replicable for other province. It is hoped that through the development of Village Community Health Development Program and Village Nutrition Program in a constructive fashion, the concept of primary care will become more understood and acceptable. Hopefully, we can cope and solve these problems within the near future. Only through hard work can such an effort succeed. We readily accept this challenge and together with all parties involved look forward to the day when there truly is "Health For All".

REFERENCES

1. Banik; Datta N, N.D.; Nayar, S; Kreshnan, R. Lila Raja : A study of epidemiologic basis of malnutrition in pre-school children in slum areas in Delhi, Indian Pediat. 10 : 19 (1973).
2. Biddulph, J. : Present problems of protein calorie malnutrition - A perspective. Kongres Nasional Ilmu Kesehatan Anak ke-IV, Yogyakarta, 21 – 25 Mei, 1978.
3. Biro Pusat Statistik, Kantor Statistik Propinsi Sulawesi Utara, 1981 : Penduduk Propinsi Sulawesi Utara 1980, Hasil Pencacahan Lengkap.
4. Dogramaci, Ihsan : Curr. med. Res Opin 4 : 1 (1976).
5. Monografi Daerah Propinsi Sulawesi Utara 1972.
6. Mordi, W.T. : Infant malnutrition in Africa : the role of artificial milk feeds. Environ. Chld. Hlth., Oct. 1974.
7. Tumbelaka W.A.F.J. : Peranan Air Susu Ibu (ASI) dalam pembangunan manusia Indonesia seutuhnya. Pidato Pengukuhan, Fakultas Kedokteran Universitas Indonesia, Jakarta, 22 Agustus 1981.

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