

Proceedings of Nutrition Society of India. Vol. 37. Kamala Krishnaswamy and Leela Raman, eds. Nutrition Society of India, National Institute of Nutrition, Hyderabad 500 007. 1991. 405+12 pp. Rs 250 or US \$ 50.

This volume is an outcome of the lectures and symposia arranged by the Nutrition Society of India, on the occasion of its Silver Jubilee, on the 1st December 1990 and the following days.

The Society has been sponsoring lectures and symposia frequently, as part of its main activities. These lectures, by eminent scientists, have provided the state of the art for researchers in the field. The present compendium is on the same lines, but is of greater significance, as it covers the entire gamut of nutritional science.

It is only natural that in such a collection, some papers stand out in content or treatment above others. Gopalan's review of the National Nutrition Scene, which is the first lecture in the series, is a hard-hitting and frank statement of the present situation in the country. Talking of 'hunger' in the country, Gopalan is frank in saying, 'these sterile debates as to ... the extent of the chronic hunger in the country ... have proved to be wholly counter-productive ... Even if we expect that only 20% of the population ... is suffering from chronic hunger, ... we end up with a staggering estimate of 164 million hungry people!' 'The time has come when nutrition scientists must turn their attention away from intellectual exercises, ... and ... concentrate on ... what is practical and feasible with current resources to mitigate the problem'. The paper is a masterly survey of the nutrition front, during the past four decades, its achievements, and the shortcomings.

J. C. Waterlow in his paper on 'Protein-energy malnutrition' discusses the present concepts of this much-debated problem. As to the remedies for overcoming this problem, he has posed the question, whether it should be through inputs from more fortunate countries or by means of social uplift in the country. Citing the examples of Caribbean and Kerala he has demonstrated that better access of women to education to be more potent than aid programmes!

It is well known that food, after all, is the most powerful political stranglehold on developing countries. M. Gabr in his 'Dr Srikantia Memorial lecture' has commented on this aspect. 'In 1988, 41% of foreign aid went to middle- and high-income countries mainly for political reasons!' but not to the poorest countries. His contribution, 'Better nutrition for the world poor; A challenge for the future', is a review of the many nutrition-intervention programmes in different parts of the world.

Dutre-de-Oliveira, in his short paper on Malnutrition in developing countries, has posed a number of questions,—why is malnutrition still prevalent in the world, in spite of the available knowledge in the area? The answer is obvious, the need is in the developing countries and the wherewithall is with the developed countries! Equally interesting are the other questions,—why the non-specialists such as economists or health professionals, without the nutrition training, speak louder than the nutritionists! 'Advising and consultancy has become a major world industry. In Africa, South of Sahara alone, more than US\$4 billion a year is spent for the payment of foreign advisors. This large amount of money is not bringing expected solutions to local problems, but certainly saving the specialist's jobs'.

Chong from Malaysia has reviewed the literature on palm oil and the question, whether it increases blood cholesterol level. Since our country has been importing considerable quantities of palm oil and palmolein, these experiments are of particular interest to us. His conclusion based on nutritional experiments, that 'incorporation of palm oil in traditional Asian diets ... is certainly nutritionally sound and probably good for cardiovascular system' is reassuring.

The five symposia relate to topics of immediate interest to nutritionists. The authors of the symposia papers are research workers who have been in the field of their choice over a period of several years. The papers while highlighting the work of the author, give a broad survey of the research in the field and are amply annotated.

The physiological and biochemical effects of vitamin A deficiency is described by Vinodini Reddy. Agarwal in his paper on iron deficiencies during gestation of rats, has concluded that iron

stores have to be built during pre-conception and adolescent stages. Kochupillai's paper on the effect of iodine deficiency in endemic areas, has discussed the problem in detail and has given methods of field screening. Eradication of nutritional iodine deficiency, according to the author, is far more economical and feasible than eradication of hunger or protein-calorie malnutrition. Iodine fortification of salt has now been adopted in the country, but Narasinga Rao has advocated fortification of salt with both iron and iodine. The second symposium, on energy metabolism and requirements, has four papers dealing with biochemical aspects of the problem. The third symposium relates to biochemical assessment of nutritional status.

Three papers are presented in symposium IV, 'Nutritional modulation of cancer'. The effect of micronutrients like vitamin A, B2 and certain trace elements on the carcinogenic effect of aflatoxin B1 (R. K. Bhattacharya). Campbell and Schurman have discussed the effect of protein in the diet on the incidence of aflatoxin B1-induced cancer. The third paper in the series by Kamala Krishnaswamy, one of the editors of the present volume, discusses the relationship between the dietary factors and cancer. The author concludes with the optimistic note, 'However a realistic dietary recommendation is possible even though, we may not have sound scientific evidence to support the guidelines or recommendations for the dietary practice'.

The last symposium is on 'Changing trends on community nutrition'. Prahlad Rao *et al.* discuss the findings of the National Nutrition Monitoring Bureau which assesses the nutritional status of the country. Some observations are worth noting,—for example, 'during the first half of seventies, there has been a substantial increase in energy intakes of rural households, at aggregate level, but subsequently there is no change in average intake of energy. ... Does this mean that the benefits of agricultural growth has failed to trickle down to the poor or is it a reflection of failure of the anti-poverty programmes to produce perceptible impact on nutrition or both?'

Robert Chambers has described in his paper, 'Participatory rural appraisal', a 'versatile semi-structured process of learning, from, with and by rural people

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about rural conditions'. Rapid Assessment Procedures (RAP) could be used for rural nutritional surveys. The procedure is based on conversation, observation, and interviews; it is said to be more economical, quicker and result-oriented, than the usual questionnaire surveys.

Jalil *et al.* deal with breast feeding and development of Pakistani children. The survey relates to 1476 children (from birth to 5 years) in and around Lahore.

A study of horticultural development, in this case, mango orchards, with the improved nutritional status of children in tribal areas, has been presented by Urmila Pingle and B. Sivakumar. The study is interesting, because it shows that though horticultural development in rural areas is more urban market-oriented, the effect on the nutritional status of local children is considerable. As the family income goes up so does the nutritional status of the family. But the study of P. Vijayalakshmi has shown that when the woman in the family is gainfully employed, this is much more so. Part of the income of the male member may be used for his own personal gratification, and may not get

into the family kitty. But this is not so in the case of the gainfully-employed woman. Besides she gets exposed to several other family welfare schemes, with an overall improvement of the family management. The authors have shown this from their survey of villages near Coimbatore.

The concluding paper by M. S. Swaminathan poses the challenges which the future world has to face, if global nutrition security has to be ensured. They are, ecological, economic, energy, employment, equity and population. Describing how formidable the challenges are, Swaminathan ends with a ray of hope, '... fortunately we also have the tools provided by modern technology, such as biotechnology, space technology and information technology, which can help us to face successfully the challenges ahead'.

By publishing this volume, the Nutrition Society of India has indeed done a very valuable service to all those involved in the vast area of nutrition, the field workers, the researchers and the 'generalists', in which term perhaps, are included those who implement nutrition to the betterment of countries and populations. The absence of a

subject index is a lacuna which could have easily been avoided. But perhaps the editors thought that since the subjects have been clearly classified, index was superfluous. The value of the volume would also have been enhanced if a brief summary of the discussions, which usually follow the presentation of the paper, was included. The discussions are valuable as they bring out points which the presentation might have missed.

However one has to recognize the valuable contribution which the volume has made in the realm of nutrition. Most of the lecturers have given a review of the subject before embarking on their contributions. Each paper has a list of references, to help those interested in further research.

The volume is very moderately priced and should find a place not only on the shelves of libraries in colleges and research institutes, but also with those who are generally interested in the practice of nutrition.

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