Medical Journal of Zambia (1975), 9, 6, 163.

Nutrition Rehabilitation in Lusaka

Tony Waterston, M.B. Ch.B., D.R.C.O.G., D.C.H.
Medical Officer, Chipata General Hospital. (From September 1974)
Now Registrar in Paediatrics, Newcastle General Hospital, England.

(Received for Publication : 12th July 1974).

SUMMARY

The incidence and present modes of management of malnutrition in the country are first discussed, and the idea of rehabilitation village, where the mother learns in a practical way about child feeding, is described. Details of the Chipata centre are given and it is recommended that these centres should be established on a wider scale.

INTRODUCTION

Perhaps because malnutrition is to such a large extent a social disease it seems to excite much less concern among doctors in Zambia than many less serious conditions. This partly reflects the lack of interest of many medical officers in paediatrics, at least those in out-stations; and to me indicates the necessity of an orientation course for doctors and

TABLE I

INCIDENCE OF MALNUTRITION

Date	Place	Examination	Criteria	% of people
May, June 1971 (1)	Eastern Province	Weight	Under 70% of standard	28
May, June 1971 (1)	Eastern Province	Weight/height	Under 80% of standard	24
Nov., 1973 (2)	Villages near Chipata	Mid-arm circumference	Under 14 cms	18
Nov., 1973 (2)	Squatter compound, Chipata	Mid-arm circumference	Under 14 cms	30
Nov., 1973 (2)	Kapata township Chipata	Mid-arm circumference	Under 14 cms	26
June-Oct., 1973	Chipata Hospital Under fives clin.	Weight	Below lower line RtoH chart	15

1. National Food & Nutrition Commission Survey
2. Chipata Nutrition Group survey (children 1–5 years)

nurses new to the country in common disorders of children and their prevention: the whole field of Maternal and Child Health could be included as it is considerably neglected at District Hospital level. The mortality in the first five years of life and from the complications of pregnancy is enormous.

Extent of Malnutrition

What is the extent of malnutrition in the country? Many surveys have been done, with conflicting results, and I will give only a few figures relevent to Chipata and Eastern Province (see Table 1). To these can be added the figures from Chipata Hospital during the period January – April 1974: of all admissions (children up to 12 years), 16% had kwashiorkor or marasmus, 33% were underweight and the mortality of malnutrition patients was 13%. In addition, a considerable number abscond and deteriorate or die at home after discharge.

Present Courses of Management

Passing from the incidence of this disease to its management, again we run into the barrier of the lack of interest and difficulty in co-ordinating nutrition-improving methods. It is easy if expensive to commission a new hospital or health centre; difficult though certainly much cheaper to promote education of good child feeding, and to attempt to alter people's habits of generations concerning weaning, what foods to grow and how to treat simple disorders such as diarrhoea and measles.

However in the under-fives field much effort and organisation has been devoted to preventive work and this is to Zambia's great credit. At present there are three main fields of activity to control malnutrition:

(1) the children's clinics, where the Road to Health chart enables early cases to be picked up and treated and where health education talks and demonstrations are given;

(2) the National Food and Nutrition Commission, which acts on a national scale by carrying out surveys and attempting to influence and co-ordinate Government policy, and on a local level through the Nutrition Groups by increasing protein food supplies to rural areas and educating young people at schools and colleges;

(3) improvement of general educational standards through schools, women's groups and further education, together with the background increase in prosperity.

These activities will, it is hoped, eradicate malnutrition in the long term but are very slow to operate and further efforts are needed at a grass roots level.

It may be objected that hospitals were not included in the above breakdown. This is because I consider that hospitals have no influence in decreasing the incidence of malnutrition : for the reason that their function is almost totally curative and attempts to introduce education of parents into Children's ward routine are not generally successful; though individual cases are cured, the recurrence rate is high and in fact it would be surprising if relapse did not take place – since the mother has no idea how to alter her feeding pattern when she returns home, or even that it necessary that she should.

Rehabilitation Centre Concept

This brings me to the concept of nutrition rehabilitation which I feel must be adopted on a much wider scale if any impact is to be made on nutritional problems. The idea, which originated in South America in the mid-fifties, is a simple one and is being adopted more and more throughout Africa. It consists of taking a group of mothers of underweight children, putting them in a 'village' or unit similar to their home environment and by letting them feed the children themselves on a well-balanced diet, instructing them practically in nutrition and child care. The vital key to successful health education well-expressed in the often quoted, seldom practised Chinese proverb – 'If I hear it I forget, if I see it I remember, if I do it I know' – is thus being used to the utmost. Unless the ignorance which is the basis of the vast majority of kwashiorkor cases is eradicated, improving people's standards in other ways will not help.

It is essential that the rehabilitation centre is as similar to the mother's home environment as possible so that she can easily adapt what she learns there. During the period she spends in the centre (the course is usually residential but can be on a day-care basis), she will do her own cooking and cleaning under the instruction of a housemother, work in the garden growing vegetables, tend hens and hear talks on practical nutrition, mothercraft, family spacing etc. The opportunity may be taken to introduce any innovation useful to village life, e.g. clay cooking stove, modified hen house, water carrier on wheels, etc.

Chipata Centre

To recount how such a centre works in practice, a descriptive sketch is given of the Chipata Nutrition centre:–

(1) Finance: the centre is a project of the Chipata Nutrition Group and was funded with a grant from Canadian University Overseas Service (C.U.S.O.)

(2) Buildings: there are two, a house for the housemother and a block of three rooms (for two mothers each) with a large teaching room and small gardeners's house attached. Cooking is done under an outdoor shelter. They are brick built structures conforming to local pattern without electricity.

(3) Garden: there is a large demonstration market garden which will supply the centre and act as a

source of income, with a separate smaller garden where the mothers work.

(4) Situation: this is on the edge of Kapata township, close to the main centre of population but 3 kilometres from the hospital. The Urban health centre is 1 km away. This physical separation from the hospital emphasises the distinction from medicines and the paraphernalia of medical care.

(5) Staff: there is a full time housemother with a part-time assistant, and a full-time gardener/handyman. The former has experience of nutrition work but no special training – this is not necessary.

(6) Patient selection: there are three main sources of patients, namely hospital Children's ward, under-fives clinics in the town (there are two), and rural health centres. The majority of patients will probably come from the hospital as there has been some difficulty in co-ordinating admission of out-patients. Selection is at present done by one of the hospital sisters. Medical assistants have sent some cases direct from R.H.C.s and one mother turned up herself asking for admission. Once the centre has become well-known the selection of patients should present little difficulty; it is important that the children are reasonably well and able to eat as a death or serious illness requiring transfer to hospital would affect morale very adversely.

(7) Course structure: six mothers are taken for a period of three weeks. Rather than admitting them all at once. the course is staggered so that two come in each week; this enables mothers who have been in longer to participate in the teaching of newer ones. Mornings are occupied with cooking and working in the gardern, afternoons are spent on talks and sewing or knitting; a fairly strict schedule is kept to and mothers should be occupied for most of the time. On discharge they are presented with a certificate to show to their friends.

(8) Follow-up: ideally, home visits should be done to check on the success of the teaching and allow feed-back to the courses. This has not yet been achieved here owing to transport difficulties, and is a reason for restricting admission* to mothers coming from within a fairly short radius. It is possible that health assistants from the nearest health centre will be able to home visit.

(9) Supervision: a doctor, nurse or medical assistant should supervise the health and progress of the children and here this is done voluntarily at present. At first medicines were prescribed in the centre itself for sick children but later it was felt that this detracted from the realism of the cure achieved by feeding alone, and now children needing treatment are referred to the nearby clinic and home remedies are used whenever possible.

(10) Problems: it was thought that absconsion might be significant but in fact so far has happened in only one case, a pregnant mother who went home to get medicine because of a vaginal discharge. Full explanation on admission should make it a rarity. Recently a group of mothers went to the market when they should have attended a talk; it must be made clear that if a woman is to attend the course, she must do it full time or otherwise the certificate is withheld or she must leave.

Recommendations

How effecitve is such a centre in combating malnutrition? Little evaluation has been done as yet but it is hoped that in the future it will be. However it is possible to present comparative costs for treatment of children in this centre and in hospital, and these are shown in Table 2. The figures do not allow for the fact that children treated in hospital frequently regress – while those at the centre will not but in fact will have a spread effect in that the mothers will impart their knowledge to others at home. It is always difficult to assess the full value of preventive health measures but it is surely on these that Zambia ought to be concentrating.

TABLE II

COMPARATIVE COSTS OF TREATMENT

Cost per child per day – Chipata Hospital	K 2.50
Cost of course of treatment for malnutrition (av. 18 days) – Chipata Hospital.	K 45.00
Cost per child per day – Nutrition Centre	K 0.75
Cost of course of 20 days – Nutrition Centre.	K 15.00

Therefore I believe that the Ministry of Health should take a much greater interest in promoting nutrition rehabilitation centres, and in fact should consider placing one in each province : they would then have a teaching function and could influence the formation of similar units built to village scale (a straw hut with garden would be sufficient) and attached to rural health centres. Though the primary emphasis is on nutrition education, other important health teaching on such subjects as hygiene, care of water supplies, and antenatal care, could be included●