Nutritional intervention: A Ciskei and Eastern Cape perspective

by

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1. Introduction

The aim of this paper is to provide a conceptualization of the causitive factors in malnutrition and to explore intervention strategies which can ameliorate malnutrition through an understanding of, and action upon these causitive factors. The intention is to draw on experiences gained from research and medical work among the black peoples of Ciskei and the Eastern Cape to assess the merits of possible interventions. The discourse is largely empirical in nature but we hope that its links with much of the theoretical literature will be discerned by the many cogent scholars amongst us.

In this paper malnutrition is defined as a condition which results intrinsically from energy deficits and inadequate protein intakes that increase susceptibility to infection. It is a condition considered most detrimental to infants and young children because in addition to increasing the chances of infection it appears to affect their long term physical and intellectual growth. We wish, however, to emphasize that from the point of view of intervention, malnutrition has a far greater impact, affecting capabilities of many other inhabitants of nutritionally at risk communities, especially young mothers and the elderly.

To facilitate analysis the paper has been divided into three sections. The first outlines the set of factors considered to be intimately related to nutritional status; the second outlines interventions commonly advocated to combat malnutrition and the final section provides an assessment of the various interventions.

2. Factors Affecting Nutritional Status

There are a wide range of factors in association with the level of service provision which dictates nutritional conditions in a community. The factors selected can be considered under two headings: employment status within a processes of urbanization and homeland consolidation; and the stability of the family unit and rural impoverishment. The provision of a wide range of services is also vital to the promotion of good nutrition. Service-related issues discussed include preventative, promotive and curative health care provision; child care services and state provided social grants and pension allocations.

Where some or all of the range of factors is unsatisfactory, and all or parts of the
service provision is inadequate, the immediate result is readily recognizable in nutritionally at risk communities: food shortages ensue; a reinforcing cycle of high rates of infection and nutritional deprivation emerges; and a perpetuation of ignorance among community members undermines any effort to improve conditions. The relationship between nutritional status and the factors which precipitate it can be simplistically portrayed as in Figure 1.

**Figure 1**

<table>
<thead>
<tr>
<th>Social &amp; Physical milieu (factors)</th>
<th>Service Provision</th>
<th>Food availability</th>
<th>Levels of knowledge &amp; capabilities</th>
<th>Nutritional Status/Levels of Infectious Diseases</th>
</tr>
</thead>
</table>

3. **Commonly Advocated Interventions**

If the above factors influence the incidence of malnutrition, intervention at any point or points, for example, improving the level of health care facilities available to a community, may be expected to have an influence on nutritional conditions. The following is an outline of commonly used or suggested interventions or those which may prove practical in improving adverse nutrition.

A) **National policy regarding the creation or encouragement of employment**

"When we examine the prevalence of manifest malnutrition in relation to social and economic variables, we generally find that people in poorer families, by whatever definition, have higher prevalence rates than those in richer ones." While the authors acknowledge that not all at risk individuals, even in the poorest families, are malnourished at any one time, they do highlight the fact that malnutrition is a feature of poverty and that factors such as low incomes, underemployment and poor housing define those most at risk. Lack of income and employment problems are important issues in the Eastern Cape and Ciskei. Institutional plans to address these issues are therefore welcomed. Of particular note is the government plans for the decentralization of industry, within a national strategy of regional development. In Ciskei - designated Region D in the latest decentralization plan - plans for homeland consolidation have resulted in dramatically increased population densities in both rural and urban areas as well as designated...
resettlement areas. In the Eastern Cape, the Port Elizabeth metropolitan area continues to attract work seekers from homeland and white commercial farm lands, the latter areas experiencing a decrease in population as a result of increasingly mechanized farming practices.\textsuperscript{13} It is worth noting that in 1980 the average population density in South Africa as a whole was 24 inhabitants per square kilometre, while in Ciskei it was 126 for the total population and 67 for rural areas.\textsuperscript{14,15} In 1975 the comparable total and rural population densities in Ciskei was 56 and 50 respectively. In resettlement camps such as Tsweletswele, 30 kms due west of East London, the density of population can be in excess of 1,000 per square kilometre.\textsuperscript{16}

There is little evidence to suggest that employment opportunities from decentralization plans have kept pace with the rise in job seekers. The Ciskei Commission\textsuperscript{17} estimates that 25\% of the 100,000 or more economically active urban population is unemployed and for those between the ages of 15 and 65 years, the figure is closer to 40\%. In Mdantsane, an example of a large urban complex in Ciskei, 30\% of work seekers are unemployed while upwards of a third of rural inhabitants in non-resettlement areas are unemployed;\textsuperscript{18} the figure for resettlement areas is probably in excess of those given above.

In 1982 the Household Subsistence Level (H.S.L.) for a black family of 6 in Port Elizabeth and that for a family of 6 in Peddie (a small town in Ciskei) was R219 and R211 per month respectively.\textsuperscript{19} Studies into nutritional status of Eastern Cape and Ciskei communities between 1981-83 by the Institute of Social and Economic Research (ISER) at Rhodes University and the Department of Health (in the Eastern Cape only) show that comparable household incomes for New Brighton, a permanent black township in Port Elizabeth to be R280; for Little Soweto, a squatter settlement outside Port Elizabeth, R260; for the rural Amatola Basin communities in Ciskei R82 and for the resettlement area of Tsweletswele, R34.\textsuperscript{20,21,22} Needless to say, it is in the lower income communities that poverty is endemic and malnutrition rife.

Without considering the incidence of malnutrition at this point, the above figures are sufficient to show the importance of ones geographical location on the access to job opportunity and quality of life, and by implication, the level of nutrition.

B) Policies which preserve family life and prevent rural impoverishment

A most depressing aspect of life in Ciskei and many of the small towns of
the Eastern Cape is the inability of the breadwinner to reside at home. The need to be employed perpetuates migration and influx control (and other legislation) in the centres of job employment means that the family breaks up. The departure of the economically active sentences the remaining family members, invariably young children, wives and the elderly to a socio-economically impoverished existence. Malnutrition becomes part and parcel of such situations. It must be emphasized that it is not migrant labour per se which is the cause of malnutrition, but rather that the extensive physical disruption of family life which it causes, fosters extensive desertion by men of their dependents and an illigitamacy of children whom nobody wants or for whom nobody can provide

To try and maintain the extended family groups and nuclear family units in which the father is present, and in which malnutrition has been shown to be less virulent positive rural and urban development should be a primary goal of interventions. There is evidence of rural development programmes, village betterment schemes, cottage industries and farm projects within the region. When these schemes succeed, they can provide employment and work opportunities and by implication can help keep the economically active at home. There are however a number of obstacles to the positive functioning of these programmes and schemes which will be raised in the analysis section of the paper.

C) The provision of services

The infrastuctural underpinnings of an economy such as roads, public health and educational institutions can play a vital role in the wellbeing and nutritional condition of a community. Some of these services require large capital outlay, others less so. Providing a network of clinics can be expensive, instituting a child minding service less so. It has been mooted that child care facilities for working guardians and disadvantaged children (mentally haddicapped for example) could release potential job seekers to seek employment and so increase household income. Such a facility could be instituted at relatively low cost with far reaching implications for nutritional conditions of young children and infants.

Capital outlay is necessary and, it is claimed, well spent on providing a network of clinics which provide promotive preventative and curative services. The service must be accessible to all. In times of particular community
hardship, e.g. droughts, this basic net of clinics can act as well organized and capable centres for the distribution of food stuffs to at risk individuals. At a more general level, the educative role and 'teaching to cope' role of the clinics, it is postulated, can be significant: family planning, anti-natal care, care and monitoring of young children, the aged, the disabled and the paraplegic can all fall under the umbrella of the clinics linked in turn to a set of higher order services. Health education can also be taught from the clinics. The concept of a district nursing service based at the clinics is important for reaching out into the community. The district nursing service can also act as a catylyst for promoting community participation in health related issues. Such outreach probably needs to work in tandem with and not in opposition to traditional medical practices and practitioners and needs to take cognizance of community values systems. By understanding and working within the cultural context the possibility exists for the clinics to act as the foundation for primary helath care and community involvement which in turn can result in raised levels of nutrition.

Social grants and pensions are inadequate to provide a satisfactory standard of life for those who must depend on them for income. Some of the key problems which seem to emerge from an analysis of grants and pensions is that the sums of money involved are firstly inadequate and secondly difficult to get regularly. Administrative problems often result in late payments and many people who should qualify are exempted because of bureaucratic red tape.

4. The Assessment of Intervention Strategies

The many possible lines of intervention woven into the foregoing section can be considered for purposes of assessment within a twofold breakdown. There are firstly those interventions which need to be conceptualized as basic to the solution of malnutrition but which may require structural changes before benefits to at risk communities occur, for example institutionalized land reform to give landless peasants access to cultivated lands. The second category includes interventions which may be implemented in the short term, requiring no far ranging or radical social, economic or political changes. An example of short term, 'patching up the system' intervention would be the implementation of a national school feeding scheme. In this assessment section, space permits only representative issues from each category to be discussed, but it is envisaged that the examples will highlight trends in the types of strategies and lines of action needed to improve nutritional s
A) The basic solutions: some thoughts on structural change

(i) Accelerated urbanization?

As stated in the previous section, government plans for regional development have not provided job opportunities commensurate with the burgeoning population and the growing number of job seekers in Ciskei, as well as the many rural and small town communitites of the Eastern Cape.

Nutritional surveillance has been undertaken in the Eastern Cape and Ciskei by (ISER) and the Department of Health between 1981-1983 as stated before. Table 1 depicts the number of children regarded as at nutritional risk - those falling below the third percentile (80% expected weight) on the weight for age and height for age (90% expected height) of the NCHS norms - for various communities surveyed as well as the comparable household income for each community.

<table>
<thead>
<tr>
<th>Locality</th>
<th>Weight for Age</th>
<th>Height for Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Cases</td>
<td>% &lt; 3P</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tseleletswele (Closer Settlement)</td>
<td>136</td>
<td>-</td>
</tr>
<tr>
<td>Amapolo (Rural Ciskei)</td>
<td>209</td>
<td>25</td>
</tr>
<tr>
<td>Dias (Commercial farms)</td>
<td>1 391</td>
<td>232</td>
</tr>
<tr>
<td>Little Soweto</td>
<td>244</td>
<td>20</td>
</tr>
<tr>
<td>New Brighton</td>
<td>205</td>
<td>13</td>
</tr>
</tbody>
</table>

Accurate age data was not available for most children in Tseleletswele so these measurements are excluded from the table. Tseleletswele had however the highest incidence of kwashiorkor, with 14 or 10,1% of all children sampled, in this category. The association between income and present nutritional conditions, as suggested by the proxy measure of weight for age is very strong, especially when one realises that those black families from the Dias area - a white commercial farming area covering most of the Eastern Cape as shown in Figure 2 - receive rations.
in addition to cash earnings. In New Brighton, where earnings are highest, nutritional conditions of young children are good. Incidentally, other factors such as nucleated families with the fathers at home, were typical of the New Brighton homes surveyed. The other communities, other than Tsweletswele, had satisfactory levels of present nutrition.

Long term nutritional status, as measured by the proxy indication of height for age, is really only satisfactory in New Brighton. An interesting comparison exists between New Brighton and Little Soweto. Analysis of the Little Soweto community reveals that most of the families surveyed, arrived in the urban complex over the previous three or four years to seek work. They had come from rural, mostly homeland environments and it is the previous environments of food scarcity and income sparsity that is reflected in the Little Sowetans long term nutrition. Inspite of abysmal housing conditions, poor sanitiation and the high risk of infectious and parasitic disease in Little Soweto, the present nutritional conditions contrast dramatically with long term (non-urban influenced) nutritional conditions. Given time, and the acquisition of adequate housing and services Little Sowetans life chances will be much better than those of their counterparts in the rural environments. Changing their geographic location and opting for the urban areas is seen by these squatters to be sound strategy. Should not the planners contemplating the process of relocation of these individuals feel a similar conviction?

The point is not to advocate a process of uncontrolled urbanization but to review the obvious need to allow those who want to migrate to the towns to be given such opportunity. To mitigate against excessive urbanization, meaningful rural development must accompany the inevitable urbanward movement of people. What is essential is that planners prepare legislation which can reflect the twin pronged need for urbanization and concommitant rural development.

Crowding people into homeland environments incapable of supporting them is unacceptable institutional practice. At the moment decentralization incentives have provided only 3 000 jobs at Dimbaza, an area with some of the highest decentralized incentives in the country. That these incentives cannot cure the ill invested in the region through homeland consolidation is reflected in the annual 'export' of some 50 000 Ciskeian migrants to work opportunities in 'white' South Africa. An enlightened
institutional strategy to permanently house the aspirant urban dweller from rural and homeland environs must be a top priority for long term interventions in the plight of those at risk to malnutrition.

(ii) Providing a stable family unit: an important counter to malnutrition?

In a study encompassing over 5 000 interviews with the parents of Ciskeian children, Thomas 26 came to the conclusion that "... against a background of great and almost universal poverty, the most important determinant of a child's nutrition was the organisation of his home life. Children with kwashiorkor seem to come from the most remarkably disorganised families compared to the stable, integrated homes of the well nourished group." Table 2 is a selection of variables associated with the nutritional status of children in this study.

Table 2: Factors Related to Nutritional Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>Nutritional Status of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Well Nourished</td>
</tr>
<tr>
<td></td>
<td>group</td>
</tr>
<tr>
<td>Invalidity Rate</td>
<td>26</td>
</tr>
<tr>
<td>Mothers caring personally</td>
<td></td>
</tr>
<tr>
<td>for child</td>
<td></td>
</tr>
<tr>
<td>% supported by child's father</td>
<td>70</td>
</tr>
<tr>
<td>Fathers' role in family</td>
<td></td>
</tr>
<tr>
<td>a) % migrant workers</td>
<td>76</td>
</tr>
<tr>
<td>b) % living with a family &amp;</td>
<td>21</td>
</tr>
<tr>
<td>employed</td>
<td></td>
</tr>
<tr>
<td>Fathers' support</td>
<td></td>
</tr>
<tr>
<td>a) % fathers supporting</td>
<td>71</td>
</tr>
<tr>
<td>b) % fathers deserting</td>
<td>5</td>
</tr>
<tr>
<td>Family Composition</td>
<td></td>
</tr>
<tr>
<td>a) Integrated families</td>
<td>83</td>
</tr>
<tr>
<td>(nuclear or extended)</td>
<td></td>
</tr>
<tr>
<td>b) % children entirely dependent on relatives'</td>
<td>0.5</td>
</tr>
<tr>
<td>old age pension</td>
<td></td>
</tr>
</tbody>
</table>
a) Illigitimacy and the unwanted child

Many illigitimage children, as shown in Table 2, end up with kwashiorkor. Not all illegitimate babies are unwanted, but most represent the problem of the unwanted child. These children represent recurring kwashiorkor admissions to hospitals and those that die from malnutrition. Institutional curative care of kwashiorkor victims is expensive, to say nothing of the guilt placed upon the child's mother. While realising the far reaching consequences of the following intervention proposal, it is necessary to present it for close examination. State approved abortion can act as a preventative measure against malnutrition. Approved abortion for consenting females can reduce the numbers of malnourished admitted for care and dispel misplaced maternal guilt and the inability to support unplanned and unwanted children – one of the products of social disorganization which permeates at risk communities and is particularly common in disorganised households.

b) Family cohesion and positive rural and homeland development

The positive role of a well organised family on nutritional status can be deduced from Table 2. Desertion by the father on the other hand is a major negative factor. Many of these fathers are migrants, who, if they could have included their families in their urbanward passage, would not have deserted. The need to make allowance for less restricted urbanward movement of rural and homeland people has already been stated, but what about those who remain?

In the Dias, white commercial farming area of the Eastern Cape, black children of farm labourers were generally adequately nourished. A major reason is that family units are intact: 73% of families had fathers at home, or if they were migrants (14%), they contributed to the support of the family. 86% of mothers were at home. Nutritional problems were associated with poorly organized homes, especially where people on disability grants and pensions had to fend for themselves and other peoples' children. Positive rural development in such areas must include better service provision for such items as pensions or grants. Throughout the Eastern Cape and Ciskei the malmanagement and often inability to provide these benefits is a major problem that must be remedied. In addition, the pittances which pass for pensions and grants need to be
reassessed in the light of what money can sustain even the most basic, acceptable levels of living.

In Ciskei, the continued resettlement of people from outside the region poses the gravest threat to satisfactory living standards. Resettlement areas become the receptacle for highly disorganized family units. It is worth noting that the incidence of kwashiorkor, which did not increase dramatically in Ciskei even during the drought thanks to large inputs of local foreign food aid, has risen markedly in Potsdam - co-inciding with the influx of more resettled people. Table 3 reflects the higher incidence of kwashiorkor and marasmus in the resettlement areas as opposed to the urban and to a lesser extent traditional rural areas of Ciskei, served by the Cecilia Makawane Hospital.

Table 3: Children with kwashiorkor and marasmus admitted to

<table>
<thead>
<tr>
<th>Locality</th>
<th>No. of Cases</th>
<th>% of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mdantsane Urban (pop. ± 200 000)</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Rural (pop. ± 60 000)</td>
<td>14</td>
<td>22.2</td>
</tr>
<tr>
<td>Potsdam (resettlement area under CMH pop. ± 8 000)</td>
<td>5</td>
<td>7.9</td>
</tr>
<tr>
<td>All resettlement areas (Potsdam, Tswaletswele etc)</td>
<td>14</td>
<td>22.2</td>
</tr>
<tr>
<td>Other (e.g. other resettlement areas, Duncan Village, Clinics not under CMH)</td>
<td>27</td>
<td>42.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>63</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Preserving family unity under circumstances of dire poverty, the lack of job opportunity and migrancy, as is the case in resettled areas, is not possible. Hence the eradication of malnutrition is also impossible. Positive homeland development hinges on the reduction of population in these areas. Ciskei, an essentially pastoral landscape with limited cultivation potential, cannot support the high population densities demanded by resettlement. If better nutritional status is to be achieved in Ciskei, it must follow from enlightened institutional attitudes towards the carrying capacity of the land and an appreciation of the limited urban employment opportunities in an essentially peripheral economic region of the country.
B Institutional service provision: improving what is already there

In reality the distinction between structurally-related interventions and other forms is minimal. The network of clinics in Ciskei has been established within a plausible philosophy of preventative care, available right down to the local level. Structural change in the case of clinic service is therefore of less consequence than a set on ancillary problems related to the effective functioning of the clinics in the communities they serve. Two examples illustrate the point.

(i) The training of clinic staff

Every effort is no doubt made to provide a highly qualified nursing fraternity. Observation of nurses assessing children at risk to malnutrition show at least one area in which training must however be significantly enhanced. Road to health cards are used at clinics to monitor growth and the attendant nutrition of young children. Failure to grow, which should be readily discernable from the charts, is a certain indication of nutritional ills. Yet nurses will see children on three or four consecutive visits, plot a series of weights for age which indicate inadequate or negative growth, and will not realise these children are becoming nutritionally ill. The fundamental concept of growth and its relationship to nutritional status appears to be lacking in clinic staff; the early detection of malnutrition must be part of the skills nurses acquire in training. Preventing malnutrition means greater resistance to infection of young children and less money allocated to later curative care.

(ii) Attitudes towards malnutrition in children

The problem of malnutrition is often blamed on indigent mothers. Efforts to erase malnutrition then focus on educational programmes geared to moulding mothers more able to use scarce resources to maintain the health of their children. Unwanted children is an issue already discussed. Besides unwanted children, environments of poverty mean all of a community's children can be at nutritional risk. It is therefore important to conceptualize malnutrition as a notifiable illness and not a condition related to the morality of mothers. If malnutrition is an illness requiring treatment, then at the clinic level, a realistic assessment of the degree of malnutrition must result in food supplements being available to treat all
malnourished individuals. Official policy should be clearly stated: malnutrition, as defined in the introduction, is an illness and the straightforward treatment is the increased intake of food. In the short term, health education will have less impact on reducing the incidence of malnutrition than concentrating on the malnourished themselves.

5 Conclusion

Malnutrition is associated with poverty. Poverty adversely affects the physical and social competence of those afflicted. It becomes a self perpetuating syndrome which the individual and the group or community can do little to eradicate. Institutional intervention is necessary. Consideration has been given in the paper to the type of institutional actions which can reduce poverty and by implication malnutrition. While not underestimating the complexity of the issues involved, this paper advocates a process of urbanization for black families who seek to relocate from impoverished rural areas; the need to halt resettlement of people into overcrowded homeland areas unable to support them; and a consideration of the issue of abortion within the context of family disorganization brought about by institutional constraints on family life. Reaction to the above interventions may differ, but it is essential, whatever the attitude adopted, to recognise that the reduction of malnutrition must be resolved in the political arena as much as by the concerted effort of individuals and groups to strive to improve the situation in which they find themselves.

An analysis of service provision highlights strategies requiring no fundamental structural change. Pensions and grants need to be increased and, through streamlining the bureaucratic process, more competently administered; institutional treatment and attitudes to malnourished individual needs reconsideration; nurses require more thorough training in the identification of malnutrition; and additional services, such as child minding for working mothers, must be created. While the implementation of such interventions depends on suitably qualified personnel and money availability, the neglect to take immediate action on these issues can only exacerbate already unsatisfactory nutritional conditions in affected communities.
References


Note: One questions the validity of a H.S.L. based on race; there should be one H.S.L. for all groups, since the basic needs of all are the same, irrespective of race.

20. The ISER and the Department of Health in the Eastern Cape have conducted a number of anthropometric surveys in the Eastern Cape. The Port Elizabeth information comes from a survey undertaken in December 1982.


22. Fincham, R.J., et.al., 1983 ibid.


These papers constitute the preliminary findings of the Second Carnegie Inquiry into Poverty and Development in Southern Africa, and were prepared for presentation at a Conference at the University of Cape Town from 13-19 April, 1984.

The Second Carnegie Inquiry into Poverty and Development in Southern Africa was launched in April 1982, and is scheduled to run until June 1985.

Quoting (in context) from these preliminary papers with due acknowledgement is of course allowed, but for permission to reprint any material, or for further information about the Inquiry, please write to:

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