Is Rehabilitation of the Rural Disabled a Realistic Objective?

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INTRODUCTION

In considering the feasibility of rehabilitation of the rural disabled there are initially three concepts which should be addressed. These are rehabilitation, disablement, and rural disability.

REHABILITATION

'Rehabilitation' is usually defined as the third phase in medicine (prevention being the first, and curative care the second). The 1969 WHO Expert Committee on Medical Rehabilitation defined 'rehabilitation' as follows:

'the combined and coordinated use of medical, social, educational, and vocational measures for training or retraining the individual to the highest possible level of functional ability'.

Evidently, since 1969, the concept of rehabilitation has broadened and the world is now used to refer to a variety of programmes. However, a closer look at the above definition of rehabilitation shows that the definition relates mainly to interventions aimed at the individual and neglects those aimed at changing the factors in his immediate surroundings in the society as a whole.2

In 1981 a WHO expert Committee recommended the use of the following definition for rehabilitation:

"Rehabilitation includes all measures aimed at reducing the impact of disabling and handicapping conditions, and at enabling the disabled and the handicapped to achieve social integration. Rehabilitation aims not only at training disabled and handicapped persons to adapt to their environment, but also at intervening in their immediate environment and society as a whole, in order to facilitate their social integration. The disabled and handicapped themselves, their families, and the communities they live in should be involved in the planning and implementation of services related to rehabilitation.'3

This definition includes the preventive and curative measures which were deficient in the 1969 definition and which are important in reducing the disability problem.

The emergence of medical rehabilitation in the early part of the 19th century saw the development of institution-based rehabilitation (IBR) as the modus operandi. Most countries of the world have today at least one active rehabilitation institution. These institutes have achieved many excellent results and have had a great influence on the attitude towards rehabilitation. However, the impact on the disability problem as a whole has been small.

Since 1969 there has been increasing criticism regarding the deficiencies in rehabilitation services.4 Although the goal of providing sufficient rehabilitation facilities for all those in need has been achieved in a few very developed countries, it is evident that it will not be achieved in the developing countries.1

An example of why this will not be possible is given below: It was recently recommended that rehabilitation services be set up in the capital city of a country in Africa. Figures of manpower needs (in 11 different occupations) and of patient turnover were provided. When the figures were studied it was found that if the entire health budget for the country were utilized solely for rehabilitation services, it would take 60 years to develop the necessary manpower and about 200 years to provide the present needy population with the desired amount of care.

The impracticality of using IBR as the modus operandi in developing countries is well illustrated by this example. The deficiencies in the conventional approach to rehabilitation can be looked at in the areas of:

a. planning deficiencies — partly due to lack of adequate statistics of the problem,

b. deficiencies in the content of services — partly due to economic constraints,

c. coordination deficiencies — often caused by professional 'terrorialism'.

WHO concluded that 'owing to the large gap between actual needs and the potential possibilities of meeting them by utilizing present methods of providing services, present policies must be changed and a new set of solutions more in keeping with the actual situation and the available resources must be created and implemented'.1

I will come back to this later on.
DISABILIT Y

Much of the problem of inadequate statistics with regard to disability has been the lack of uniformity in defining the different levels of severity of disability.

Wood stated that 'Disablement is a compound concept concerned with the consequences of disease and illness'. He went on to point out that the medical model of disease is concerned with the intrinsic situation, the occurrence of something abnormal within the individual. This is followed by exteriorization of the problem, where someone becomes aware of the abnormal occurrence. In turn this experience if objectified as performance or behaviour undergoes alteration, everyday activities may become restricted, and the whole process can trigger psychological responses, which is referred to as illness behaviour. Finally, these occurrences are socialized as the awareness of altered performance of behaviour leads to the individual being placed at a disadvantage relative to others in society. This brief outline of the development of illness has been condensed from the International Classification of Impairments, Disabilities, and Handicaps. Its relevance is that it helps to establish the foundation of a conceptual model of disablement (Figure 1).

![Fig. 1.](image)

In brief then, impairment refers to disfunction of bodily parts or organs. Disability is a characteristic of an individual, describing aberrations in normal performance whether physical, emotional, mental or social. Handicap is the social consequence of disability, i.e. the disadvantage compared with other individuals.

It is important to consider how impairments and disabilities give rise to handicap. Medical and remedial treatment tends to concentrate on the individual, but disadvantage arises from interaction with that person's situation. This requires that thought be given to the environment, both physical and social, and to the resources to which the individual has access. The critical property of handicap is its relativity, the discordance between the individual's performance and the expectation of his 'society'.

Taking into account the various estimates of disability, the evidence suggests that about a third of the population is impaired in some way, a third of those with impairments are disabled to some extent, and a third of the latter experience sufficiently severe restriction in activity as to be handicapped.

Now we come to the situation found in developing rural areas.

RURAL DISABILITY

During the International Year of Disabled Persons 1981, many countries initiated surveys to establish more accurate figures of the numbers of disabled people. In industrial countries, many factors were established regarding disability, e.g. the association between disability and age. However, in the industrialized countries it is recognized that the available statistics are inadequate and there are still many questions which have not been answered.

In developing countries still very little is known regarding the extent of the disability problem as well as the age and sex structure of the disabled population. Extrapolating the findings from developed countries gives an indication of the immense resources which will be needed to deal with the problem over time, taking into consideration that during the next 50 years the population of the developing countries is expected to treble.

Properly conducted disability surveys cost a great deal of money which developing countries can ill afford. In addition, many developing countries doubt, with reason, whether it is ethical to count disabilities without offering treatment or relief.

A recent Impairment Disability and Handicap Study in KwaZuluáb which obtained information on a sample of 1659 people and cost R20,000, gave an overall crude prevalence rate for motor impairment of 51/1000. There was a marked increase with age, 6% were between 20-40 years, 27% were between 40-50 years, and 67% were over 60 years. The female age specific motor impairment rates for walking disability are given in Table 1.

<table>
<thead>
<tr>
<th>Age</th>
<th>Motor impairment rate/1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>13</td>
</tr>
<tr>
<td>11-20</td>
<td>15</td>
</tr>
<tr>
<td>21-30</td>
<td>26</td>
</tr>
<tr>
<td>31-40</td>
<td>36</td>
</tr>
<tr>
<td>41-50</td>
<td>86</td>
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<tr>
<td>51-60</td>
<td>96</td>
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<tr>
<td>&gt;60</td>
<td>378</td>
</tr>
</tbody>
</table>

As can be seen there is a gradual increase in motor impairment associated with walking disability with age and a dramatic increase over 50 years (277/1000).

The same study showed a crude prevalence rate of 9/1000 for visual impairment including blindness. This was divided into 5/1000 for blindness (vision less than 6/60) and 4/1000 for visual impairment (vision between 6/29-6/60). Although the rates were small in comparison with the motor rates, it was significant that the rate for blindness as a result of microphthalmus was 2/1000. (Microphthalmus is a genetic condition and the rate in a normal population is 0,5/1000.)

No similar studies using impairment and disability as defined here have been done in rural areas and it is therefore impossible to compare disability and impairment prevalence rates. However, this study demon-
stated that in a subsistence dependent rural area in
South Africa walking disability is a major problem,
and that blindness among young people was mainly
due to a genetic condition. According to surveys
sponsored by WHO, in some developing countries it has
been estimated that between 7 and 10 percent of the
population in these countries is disabled. Disabled per-
sions form the most severely underprivileged group in
the societies of developing countries. WHO has recog-
nized that '...the massive disability is, clearly, in
developing countries', and Wilson stated that 'It is
among the poorest communities in the developing coun-
tries that poverty breeds disablement and disablement
breeds poverty, a vicious circle that the poorer coun-
tries can least afford. These communities are the target of
every rational development programme — underprivi-
elged, underserved, undernourished, at the bottom of
every economic and social heap. Diseases long con-
trolled elsewhere still flourish and bring with them not
only death but lifelong disability, e.g. leprosy.'

Resources for health care are still scarce in most
developing countries. This is especially true in rural
areas where, in many countries, ± 80 percent of the
population live. In SA the 1970 census indicated that
70% of the SA black population live in homeland and
white farm areas (i.e. rural). Rehabilitation services
are among the least developed and it has been calculated
that 98 percent of the disabled have no access to
services in their lifetime. For those few who now receive
services, these are mainly in the form of institution
based rehabilitation (IBR).

IBR is concentrated in the cities and only on rare
occasions available to rural populations. Institutions
are highly specialized and expensive. They are dependent
for efficient running on teams of highly trained profes-
sionals who work according to Western standards.
Their methods include use of sophisticated technology.
Institutions are usually residential and require a great
number of staff.

Plans to extend IBR in order to cover population
needs have usually met with economic problems. An
attitude commonly found is that services for the disabled
are a luxury only a rich country can afford.

All this has indicated that a different approach is
required with regard to rehabilitation in developing
areas, and SA is considered a developing country.
It is evident that the conventional approach in which
disabilities were divided into impairment categories,
e.g. Physical, Deaf, Blind, Mental retardation, etc. is
not appropriate in rural areas and that a multi-discip-
lineary approach is required. It is not only the approach
to the disability problem which must be multi-discip-
lineary but also to the next concept which I would now
like to introduce; that of Community-based Rehabilita-
tion (CBR).

COMMUNITY-BASED REHABILITATION (CBR)

CBR is a concept closely related to primary health
care and forms an integral part of the programme to
develop health for all by the year 2000.

Community-based rehabilitation involves measures
taken at the community level to use and build on
the resources of the community, including the
impaired, disabled, and handicapped persons them-
selves, their families, and their community as a
whole.'

CBR promotes community responsibility and reliance
on local resources. Family and community members
are involved in the essential training for their own
disabled, using local technology. A referral system is
set up to meet needs that cannot be locally dealt with.
To make it effective, training is done in the following
way.

Rehabilitation programmes of proven value are
chosen and these are broken down into modules,
arranged in so called 'training packages' (TPs). TPs
include a short description for the person who introduces
and supervises the training, a detailed description of
the various training steps and an evaluation sheet. The
language is simple and the text supported by many
drawings. The TPs are given directly to the disabled
person and to the family members responsible for the
daily training.

CBR is carried out in the following manner:
A 'local supervisor' is recruited from the community
and trained. The local supervisor identifies the disabled
by making house-to-house visits. The disabled and
their families are motivated to take part in CBR. A
'trainer', normally a family member of the disabled or a
friend, receives instructions on how to do the training.
Practical demonstrations are given and the local super-
visor checks that the training is done correctly. The
results are evaluated together with the disabled and the
trainer.

The modules used in CBR have been compiled into a
WHO manual 'Training the Disabled Person in the
Community'. The manual contains booklets for 6
groups of disabled persons; i.e. those who have fits,
hearing and speech difficulties, learning difficulties,
moving difficulties, seeing difficulties, and persons with
strange behaviour. Each module contains the appro-
priate TPs, instruction and evaluation sheets. In addi-
tion, there are four guides: for policy makers and
planners, for local supervisors, for community leaders,
and for teachers.

Now is this approach feasible in SA? CBR has been
used in different parts of the world, e.g. Botswana,
Burma, India, Mexico, Nigeria, Pakistan, the Phillipines,
Saint Lucia (Caribbean), and Sri Lanka. It has been
proven to be technically viable, effective, feasible, and
appropriate in all the different settings in which it has
been used. It has been estimated to be economically
maintainable and organizationally feasible if imple-
mented as a component of primary health care and
community services.

The manual has been adapted and an improved
version was published in 1983.

The SA Federal Council for Rehabilitation of the
Disabled has taken the initiative by becoming involved
in a pilot project which it is hoped will commence in
1986 in KwaZulu. Funding has been made available by the Anglo-American Chairman’s Fund for the adaptation of the WHO Manual to local rural conditions in KwaZulu and for it to be translated into Zulu.

The manual will include, in its development, the testing of the material on Therapy Attendants who have been involved in dealing with rural disability for 5 years at Manguzi Hospital.

The concept of Rehabilitation Assistants is the final one which I would like to deal with in this paper.

**REHABILITATION THERAPISTS**

Irwin (1982) proposed the use of paraprofessional workers, backed by specialized government facilities, to provide the basic services, for disability prevention and community based rehabilitation. Ideally, he stressed that these community level workers should come from the areas in which they work. They should be trained to work in their own villages or areas and thus, they would have to answer directly to their constituencies.13

The name given to the worker under discussion is a Rehabilitation Therapist. It is the accepted term for a non-professional worker involved with rehabilitation and supervised by a professional therapist.14

In KwaZulu a four-tiered rehabilitation delivery system for rural health services has been proposed (Figure 2).

**CONCLUSION**

I am sure there is no doubt in your minds about the need to change. We have posed the question, 'Is Rehabilitation of the Rural Disabled a realistic objective'.

However, we need imagination, courage, perseverance, and above all, faith in the ideal of providing Rehabilitation for All (RFA). The RFA philosophy stresses the right to rehabilitation and its relationship to the right to self-sufficiency. It demystifies the rehabilitation process and places it in the hands of disabled people themselves.

As World Health points out in their May 1984 Journal, "No single approach to a RFA programme — including technology, delivery system and management — would be applicable to every corner of the earth. Each country should design its own plan, based on experience from abroad and lessons learned at home. RFA has so far been introduced in about 25 countries. Today it covers total populations of more than a million people. It requires only a fraction of the budget needed for traditional institutional rehabilitation.

Death and illness have always occupied the health authorities but the third dimension — disability — has yet to attract the attention it deserves.

It has been said that the quality of life among disabled persons in developing countries is a matter of great concern to the international community. And here in South Africa the initiative to improve the quality of life of the rural disabled has been taken up by the SA National Council for the Blind, and the Federal Council for Rehabilitation of the Disabled.

I hope that my paper has emphasised the importance of supporting the initiative and has affirmed that by using the Community Based Rehabilitation Approach, Rehabilitation of the Rural Disabled is a realistic objective.

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