COMMUNITY - BASED REHABILITATION AS A RELEVANT APPROACH FOR DEVELOPING COUNTRIES

Padmani Mendis

The need for community based rehabilitation, particularly for the disabled, is today an essential requirement in the Primary Health Care Services of the developing countries. The results of such CBR programmes upto date have clearly shown that family members and the community can under supervision train their own disabled very successfully, maintains Dr. Padmani Mendis, consultant on the Programme of Disability Prevention and Rehabilitation at WHO Headquarters in Geneva, since 1979, in this paper she presented in Kuala Lumpur in 1983. She points out that social justice and the UN declaration of the International Decade of Disabled Persons makes it imperative that we change our discriminatory practices and make available to our disabled population social integration with true equalisation of opportunity. The concepts of CBR provide disabled people, their families and their communities with the ammunition necessary to change that "care" into "full equalisation of opportunities".

THE NEED FOR A NEW APPROACH

The WHO estimates that on any one day 1.5 per cent of the population in the developing world is in need of rehabilitation. Thus today in our countries there are some 45 million people whose quality of life could be considerably improved by the availability of a rehabilitation service. It is further estimated that only 1 - 2 percent of the disabled people in need have access to rehabilitation services of any kind. This is illustrated in the figures at right, from Sri Lanka.

I have chosen Sri Lanka as an example not just because it is my own country, but because it has a long tradition of welfare services including free health care and education, a literacy rate of 88 percent, an Infant Mortality Rate of 36 per 1000, and a PQLI of 84, figures that are among the highest in Asia. And yet our rehabilitation coverage even in quantitative terms is only 2.2 percent. To mention random examples from other regions, Botswana in developing Africa has a coverage of 0.7 percent (2), (3) while Grenada in the Caribbean provides a coverage of just 3.7 percent (4).

What of the feasibility of extending the present pattern of services which is based on the institutional model, to meet the needs of the entire 1.5 percent. To continue with Sri Lanka as an example; the Table below indicates that there are today about 225,000 people needing rehabilitation. Annual per capita cost of maintaining a disabled person in an institution, averages about U.S. $ 600 (and this is very low in comparison to most other developing countries). Even if only 150,000 of the 225,000 need the services that institutions provide, it would still cost U.S. $ 9,000,000 per year to maintain institutions.U.S. $ 9,000,000 for running costs for rehabilitation institutions alone when our total annual recurrent health budget is U.S. $ 54,000,000. Also, we now have 50,006 institutional places. Imagine the capital outlay necessary to build and equip institutions and to train the manpower necessary to man them, to increase the number of places by 300 percent.

Yet, it is not the prohibitive costs alone that creates an urgent demand for the adoption of a new approach for meeting the needs of our disabled populations. Consider also the quality of rehabilitation that is available in our countries. In apeing the western model within the meagre financial resources

CHART 1 · Availability of Rhabilitation in Sri Lanka

Total Population			15,000,000
Estimated handicapped at 1.5%			220,000
No. of places in Rehabilitation Institutions			5,006
01	Rehabilitation Hospital	260	
14	Institutions for mentally retarded	3,000	
05	Institutions for the physically handicapped	140	
15	Institutions for the hearing and visually handicapped	1,200	
01	Institutions for the multiply handicapped	80	
10	Vocational Training Centres	326	
	Total	5,006	
Proportion of Places in relation to Need (Quantitative Coverage)			2.2%
(There are in addition 05 national level non-governmental welfare organisations for the disabled.)			

Source: *IYDP Secretariat and School of Physiotherapy and Occupational Therapy.*

available to us for rehabilitation, we have fallen far short of the services they provide and of the high levels of habilitation achieved in the West. How often do rehabilitation institutions in our countries have the wherewithal to fulfil the goal of rehabilitation, which is to provide the disabled people with the opportunity for integration in the mainstream of their community life? Rehabilitation that is available even to the few nearly always leads to isolation or segregation of disabled people - homes for the mentally retarded, shops for the physically handicapped - where in these institutions is the full participation, the equal opportunity?.

Another fact that should be mentioned is the absence of education in the total rehabilitation concept among those running and manning institutions. Compartmentalisation of rehabilitation has been successful to such a degree that separate departments and ministries have responsibility for the seperate components (medical, educational, vocational, social) and vie with each other for larger slices of the same small cake. There is seldom a body to coordinate the components and make an integrated whole of the rehabilitation process.

It was just recently that I met a pretty young girl born without hearing, who had completed her primary and secondary education last December at a special School for the Deaf which comes under the purview of the Ministry of Education. She was accomplished in many skills that a young woman from the East should have - cooking, embroidery, lace making and so on. And yet she was lonely and miserable at home. Amidst her warm, loving, extended family the incomplete institutional model and the fine compartmentalisation had condemned her to a futile future of isolation. Her family had not been taught methods of communicating easily with her - neither singing nor speech reading which she had used at school; socialisation and income - generating opportunity for her was no one's concern.

The spectre of the paraplegic young man being given an imported ultra-modern wheelchair - or even a locally produced tricycle - through the generosity of Service Clubs, unknowing, unconcerned, that the young man's home is a tiny hamlet on a rural hillside or on a sandy beach is all too familiar to us. Isn't this what passes off as rehabilitation today?

Social justice and the UN declaration of the International Decade of Disabled Persons makes it imperative that we change our discriminatory practises and make available to our disabled populations social integration with true equalisation of opportunity. Field trials of Commu nity based Rehabilitation (CBR) conducted in 10 developing countries since 1979 with the cooperation of the WHO have proved that we now have within our means an alternative strategy to meet the rehabilitation needs of our disabled populations .

HOW CBR HAS BEEN IMPLEMENTED

For those who would implement CBR the W.H.O. has developed a Manual called 'Training the Disabled in the Community '(5). The Manual aims at enabling the disabled people to achieve social integration through the provision of certain basic opportunities such as independence in mobility, self-care and household tasks, education, income generation and family and social interaction. Where these aspects were seen earlier as separate components of the rehabilitation process and the responsibility of different professionals, departments and ministries, they are seen here as an integrated total concept. The Manual utilises a set of approaches designed to change family and community attittudes towards greater acceptance of the potential abilities of disabled people and of their right to develop these abilities to the maximum. It describes measures to be taken by the family and the community to enable their disabled members to participate and contribute to the life of their community instead of living in isolation or segregation.

The responsibility for rehabilitating the disabled people lies primarily with the disabled people themselves, their families and communities, under the guidance and supervision of 'Local Supervisors' (first -level supervisors). Local Supervisors in a selected area participate in a Workshop of 9 - 10 days at which they learn how the Manual is to be used. Following the workshop, Local Supervisors return to their communities and using the material provided in the Manual, initiate a rehabilitation programme in the following way; they locate and identify the disabled members in their communities, assess them to determine if they require rehabilitation and identify their needs if they do, select the appropriate training material from the Manual for each disabled person needing rehabilitation, find and teach a trainer for each such disabled person from among the family or community, and thereafter motivate, supervise and guide the disabled person, the trainer and the family in the rehabilitation process. They also periodically evaluate and record the progress made by each disabled person and involve the community in the rehabilitation programme.They are also responsible for referring didabled people who need other available services both within and outside the health sectors.

Local supervisors are in turn supervised by Rehabilitation Professionals such as physiotherapists, occupational therapists, social workers and medical officers.

Let me illustrate the effects of CBR with a few typical examples of impact it has had on the lives of some disabled:

Deepu has difficulty with learning and at three years of age still could not stand up He was not independent in self-care activities and did not interact in any way with those around him His training was provided by a well motivated mother and took the form mainly of stimulation through playing using the training package on 'Play Activities' in the Manual Deepu can now dress himself, and at the age of 4 he has started going to preschool and plays happily with his new friends.

Keeloboga was 10 months old when a local supervisor in Botswana first met her She has difficulty with seeing and sat in one place all day unaware of what was happening around her Her mother was given material to train her to get

around 3 months later Keeloboga was crawling around, pulling at everything she could find, to satisfy her curiosity. 3 months after that she was running after her play mates in the yard.

Encico was bedridden as a result of a stroke. He could also not speak clearly. The local supervisor provided his sister with training material with which she trained Enrico to move around again by himself, and to communicate easily with the family and community. He has also been trained to go back to his old job as a painter.

It was Kusumawathie's 29 year old younger brother who came forward to be responsible for her training. At 32 years she was severely handicapped by fits she used to have several times a day. Thinking of her future would make her quite depressed and she would spend her time sleeping and brooding. Medical treatment was arranged and the fits are now reduced to about one a month. Kusumawathi is very involved in family activities and has taken on the responsibility of looking after her young brothers. She also enjoys participating in village social life.

Before the community-based programme was started in her village, Mala, 13 years old, would spend her day sitting at the window gazing wistfully at the road. She has cerebral palsy and could not walk or use her hands well. Her parents had tried all the medical care they knew of, both western and traditional, but nothing made any difference. Her mother did everything for Mala. Mala was not allowed to do anything herself. Counselling and training changed Mala's life. Following instructions in the Manual, her father made walking bars from wood he cut from the garden. Helped by the local supervisor her mother taught Mala to walk. She can do so now with the help of one person. Mala now not only looks after herself, bathing, dressing, and eating independently, but also helps to look after her younger sister. She helps her mother with cooking. She recently attended the wedding of a relative, something she had never done before.

10 year old Ntchadi is hydrocephalic and has difficulty with moving. She would watch with a sad face as her brothers left home each morning to go across to the school next door to their home. When the local supervisor approached the head teacher of the school, the response was just as it should be. Ntchadi now goes to school every day, happily crawling on her hands and knees. She is, at the same time , being trained to walk with crutches. Incidentally, neither neurosurgery nor orthopaedic surgery which may perhaps have improved Ntchadi's mobility are available in her country.

Indra Irangani was one of those unfortunate disabled children who, people believed, could not go to school because she could not hear or speak. But she proved them wrong. Given the opportunity of starting school at 9, she is now well integrated in the basic class of the village school. Indra Irangani is persevering and conscientious and illustrates just how much disabled people can achieve if only they are given the same opportunities we have.

Neighbours addressed and referred to 19 year-old Jayatilleke as 'Pissa', meaning madman, because of his mongoloid appearance and retarded development. He was teased and not allowed to go about his own business. His family, out of deep affection, had a protective attitude towards him, doing everything for him, even to the extent of buttoning his shirts although he was quite capable of doing it himself.

The positive influence that rehabilitation of the disabled people in the environment of their own community has on changing unhealthy attitudes is illustrated in this case. As part of the programme the family and neighbours were counselled by the local supervisor,as was his community, through the leaders. Jayatilleke is now accepted for what he is, and is Jayatilleke. This has given him tremendous confidence. He is quite independent in self-care activities and earns a living working on a plantation. He buys his own clothes and makes his contribution to the family income.

RESULTS OF CBR TO DATE

Participants at an Inter-regional Consultation held in Sri Lanka in June 1982 representing 10 countries which have been involved in field trials of CBR (Mexico, Botswana, Nigeria, India, Indonesia, Phillippines, Sri

TABLE 1 : Case Distribution and Analysis after 5 weeks of Training

Source : *Shih, (6)*

TYPE OF HANDICAP	No of Cases	No. of cases showing	
		positive change	no change
Mentally Retarded	01	0	01
Blind	06	03	03
Epilepsy	04	02	02
Motor handicaps	06	05	01
Deaf and Dumb	03	01	02
TOTAL	20 100%	11 55%	09 45%

TABLE 11 : Case Distribution and Analysis after approximately 12 weeks of Training

Source : *Matiza (7)*

TYPE OF HANDICAP	No of Cases	No. of cases showing	
		positive change	no change
Mentally Retarded	09	06	03
Blind	09	07	02
Epilepsy	10	06	04
Motor Handicaps	06	04	02
Deaf and Dumb	07	05	02
Strange behaviour	02 (schizophrenia)	01	01
TOTAL	43 100%	29 68%	14 32%

TABLE 111 : Percentage of patients requiring various levels of assistance. Total 301 disabled

Source: *Hindley-Smith (8)*

	CATEGORY	PERCENTAGE	NUMBER
Group 1	People who do not need any assistance with their disability to live a normal life	29	88
Group 11	People whose lives could be improved by rehabilitation at the community level (by community health workers with professional help)	59	177
Group 111	People whose lives cannot be improved without the services of a hospital or rehabilitation centre	12	36

TABLE 1V: Classification of handicapped selected for training and results of evaluation -

Source: *Meegolla & Hapuwita (9)*

TYPE OF HANDICAP	TOTAL	POSITIVE CHANGE	NO CHANGE
Mentally Retarded	05	04	01
Hearing/speech	09	09	00
Mobility	04	04	00
Fits	03	03	00
TOTAL	21 100%	20 95%	01 05%

Lanka, Burma, St. Lucia, Jamaica) declared that the CBR approach had proved technically viable, effective feasible and appropriate in all the different areas in which it had been tried. Overall analysis revealed that 73% of the disabled people in the trialhave shown positive benefits at the end of the latest evaluation period. Positive results were assessed on a series of 23 questions and on observations of social change in the interaction between the disabled people and their environment.

Detailed results from Botswana, Mexico and Sri Lanka are given below as examples:

BOTSWANA

Period of trial November 1979 - March 1980.

In the first evaluation done after five weeks of training, 11 out of 20 cases (55 %) showed positive change. See Table 1.

A subsequent evaluation approximately 12 weeks after training was commenced revealed that 29 out of 43 (68%) disabled persons showed positive change. See Table 11.

MEXICO

A report on field testing basic rehabilitation technology at the community level performed between October 1978 and March 1981 (8) reveals that out of a total of 213 handicapped persons needing rehabilitation the lives of 177 (84%) could be improved by rehabilitation at the community level. (See Table 111 below.)

SRI LANKA

A report on the field testing ofth• manual carried out as a social development project by two students of the Sri Lanka School of Social Work states that out of a total of 21 handicapped selected for training 20 showed remarkable positive benefits after six months. (9) See Table 1V.

COMMUNITY - BASED REHABILITATION AND PRIMARY HEALTH CARE

All our countries are committed to the achievement of (HFA) 'health for all by the year 2000' through the deve-

lopment of Primary Health Care (PHC) services. By definition Rehabilitation is one of the four aspects that PHC addresses itself to, the others being the Promotive, Preventive and Curative aspects of Health. The concepts of CBR have therefore been built on the philosophy of PHC, so that rehabilitation can be successfully integrated into PHC systems making full rehabilitative coverage of disabled populations a realistic goal. Being part of PHC, CBR also "involves specifying measures to be taken by individuals and families in their homes, by communities, by the health service at the primary and supportive levels and by other related socio-economic sectors." It also involves "selecting technology that is appropriate for the country concerned in that it is scientifically sound, adaptable to various local circumstances, acceptable to those for whom it is used and to those who use it, and maintainable with resources each country can afford." Being part of PHC the success of CBR also depends on a high degree of community involvement. (11),(12)

Most countries which have adopted the CBR approach have done so by incorporating it in their existing PHC infrastructure. Community Health workers have taken on the role of Local Supervisors of CBR and field trials have proved this method to be very successful. The incooporation of CBR into PHC infrastructures would be essential in the long term for the achievement of HFA 2000. However, it should also be emphasised that community development organisations, both governmental and non-governmental, with grass-roots level workers (paid or unpaid) can also successfully implement CBR programmes. This is of particular relevance to us in Asia with our rich tradition of voluntaryism.

CONCLUSION

The results of community-based programmes to date indicate emphatically that the approach is suited to the needs of developing countries in search of methodology and technology with which to provide rehabilitation coverage for all their disabled people. It has shown that family members and the community can under supervision train their own disabled members very successfully. The quality of care achieved cannot be questioned - for where better to provide freedom of mobility, create independence in daily life activities and enable disabled people to participate in the mainstream of community life, than in the environment of their own home and society? The integration of disabled children in existing local schools and the provision of income generating opportunity in their own community has ensured for disabled people "equal opportunity and full participation" with true integration. It has done away with the need for them to be transported to a new and strange situation to be "rehabilitated."

Comprehensive coverage has been possible not only in the ability to meet individual needs but also in ensuring the possibility of rehabilitating those disabled through epilepsy, the hearing and speech disabled, mentally ill, mentally retarded, mobility disabled and the visually disabled.

Self care for health has deep roots in our socio-cultural past. The failure of other health systems to reach the core of the problem, as well as economic necessity, have given it a profound new significance. So it is with Rehabilitation. Our extended families have in the past "cared" for their own disabled members and still continue to do so. The concepts of CBR provide disabled people, their families and their communities with the ammunition necessary to change that "care" into "full equalisation of opportunities". For those of us who would cherish the preservation of the family unit as the base on which all modern development processes and welfare systems should be built, there is none more relevant than community-based rehabilitation for our disabled populations.

REFERENCES

1. *Disability Prevention and Rehabilitation: Report of the WHO Expert Committee on Disability Prevention and Rehabilitation, Technical Report Series No.668, WHO Geneva, 1981.*
2. *Sebina, D.B., Implementation of Disability Prevention and Rehabilitation in Botswanna. WHO RCR/EC/WP/81/12.*
3. *Helander, E. Planning of community-based rehabilitation services in Botswana. Report of a mission 3 November to 12 December 1977. WHO Hq. AFR/REHAB/10 1978.*
4. *Mendis, P. Report of Assignment, Discussions on CBR in Grenada, 11th May 1982 WHO Geneva.*
5. *Helander, E. Mendis, P. Nelson, G., Training the Disabled in the Community. An experimental Manual on rehabilitation for developing countries, WHO Geneva 1980.*
6. *Shih, D. Report from Serowe. Training the Disabled in the Community Progect. Botswana 29th December 1979.*
7. *Matiza, E. Training the Disabled in the Community, Serowe and Palapye. Botswana, March 1980.*
8. *Hindley-Smith, R. The provision of Basic Rehabilitation Services using methods that are economically acceptable. A report on field testing Basic Rehabilitation Technology at the community level performed in Mexico between October 1978 and March 1981. PAHO/WHO.*
9. *Meegolla, S.K. and Hapuwita, H.K., Report of a Social Development Project; Training the Disabled in the Community. Sri Lanka School of Social Work. 27 October 1981.*
10. *Community-based Rehabilitation; Report of the WHO Inter-regional Consultation, Colombo 28 June - 3 July 1982, WHO Geneva.*
11. *Primary Health Care, WHO Geneva 1978.*
12. *Global Strategy for Health for All by the Year 2000. WHO Geneva, 1981.*
13. *Slide Presentation on CBR, WHO Geneva 1982.*