ORIGINAL ARTICLES

VOCATIONAL REINTEGRATION OF PEOPLE WITH SPINAL CORD LESION IN BANGLADESH – AN OBSERVATIONAL STUDY BASED ON A VOCATIONAL TRAINING PROJECT AT CRP

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ABSTRACT

The employment situation for disabled people in Bangladesh has been demonstrated to be extremely poor. CRP (Centre for the Rehabilitation of the Paralysed) recently engaged in a new rehabilitation initiative, aiming at bringing people with spinal cord injury back to their previous occupations.

This article outlines the components of this initiative and assesses its success on the basis of an observational study completed at the end of the three-year programme. The study focuses in particular, on a number of critical issues surrounding disability, poverty and vocational rehabilitation in Bangladesh. An estimated 50% of the participants successfully reintegrated into paid employment, of which three quarters returned to occupations very similar to their previous ones. Serious financial struggles and inaccessible workplaces were reported as the most common obstacles. There is an urgent need for comprehensive rehabilitation programmes for all people with disabilities, particularly since the government fails to recognise its responsibilities in this regard.

INTRODUCTION

According to the most recent figures, the population of Bangladesh is fast approaching 150 million people out of which almost half currently live below the poverty line (1). Many studies, for example Department for International Development (DFID (2)) and Alam, Bari and Khan (3), have confirmed that a strong relationship exists between poverty and disability,

with each being both a cause and a consequence of the other. DFID (2) also estimates that "as many as 50% of impairments [in developing countries] are preventable and directly linked to poverty" and Elwan (4), suggests in a background paper for the World Development Report from the World Bank that as many as one in five of the world's poorest people are disabled.

Presently, there are no reliable data from either the government or other agencies to establish the number of disabled people in Bangladesh (5), although current estimates from the WHO on the prevalence of disabled people in the world suggest around 10% (6). The UN suggests that disabled people constitute as many as 20% of people in some developing countries (7). The estimates with reference to Bangladesh, over the past twenty years have ranged from 0.5% to 10% (8, 3) highlighting the need for a comprehensive, accurate study about the size and nature of the disabled population in the country. Regardless of which estimate is closer to the truth, it is evident that the absolute number of people living with a disability is extremely large. Even if one were to adopt the rather conservative estimate of 5%, one is looking at a population in excess of 7 million people who are disabled and most of whom are presumed to live below the poverty line.

Numerous studies about the employment situation of disabled people in Bangladesh, have shown that many become jobless as a result of their disabilities and are thus further disadvantaged or disabled as a consequence (9, 10). The major barriers facing disabled people seeking to re-enter the workforce, reach far beyond the physical limitations imposed on them by their disabilities. Momin (10) identified 11 barriers facing disabled people who are in paid employment or, who are seeking to re-enter the workforce. These are barriers which are mostly attributable to a generally poor understanding of disability in the society. The Danish Bilharziasis Laboratory (11) similarly asserts that prejudice, ignorance and a lack of training and educational opportunities for disabled people have caused significant barriers for disabled people seeking employment. The government is not seen to be doing much to improve the situation despite the Disability Welfare Act of 2001 (12), which aims to protect the rights of disabled people and ensure equal opportunities. Although the passing of the Act itself is recognised as a milestone, its implementation has been poor (8) and parts of the Act remain in conflict with existing legislation on education and employment (13). In relation to the Asia-Pacific regional workshop on the National Plan of Action on Disability, Alam (5) stated that

'In the disability arena, the [Bangladeshi] government has not yet taken any large initiative to review its implementation, monitoring and/or evaluation of either the national policy or legislation as yet'.

Furthermore, the lack of a social security network means that disabled people receive no financial aid to assist them with the added expenses resulting from their impairments – either directly or through loss of employment. A study entitled 'Disability in Bangladesh' (DIB) cited in Alam, Bari and Khan (3) suggests that over 96% of people with disabilities in Bangladesh, receive no help. In addition, there is a distinct lack of government initiative to advance the employment situation for disabled people through vocational training, education, legislation on accessibility at work and so on (14, 15).

A small number of non-governmental organisations are involved in rehabilitation and vocational training for disabled people in Bangladesh. CRP (Centre for the Rehabilitation of the Paralysed) is a non-governmental organisation specialising in the rehabilitation of people with spinal cord lesion in Bangladesh. Great emphasis is placed upon vocational training at CRP. Given the difficult employment situation for disabled people, the organisation recognises work rehabilitation as vital to most rehabilitation programmes. Similarly, a return to paid employment is regarded as the most important outcome measure of successful reintegration into society. Momin (16) outlines a model for a comprehensive rehabilitation programme focusing on vocational training. As the person's medical condition improves, a strategic shift in priority will allow training in daily living activities, vocational training and education, to be given precedence. Once in the community, the person still enjoys the support of community based rehabilitation through home visits and mobile clinics. The model also aims to encourage family and the community to participate to some extent, while addressing issues of social inequity and discrimination towards disabled people.

In a recent study, comparing a CRP run rehabilitation programme with general hospital treatments offered to spinal cord injury patients in Bangladesh, Momin (10) offers the strongest evidence to prove that the rehabilitation approach is effective. General hospitals offer little care beyond acute medical treatment, with very few clients receiving services from occupational therapists or physiotherapists and with no focus on vocational training (16). In a study comparing 64 spinal cord injured persons from CRP and general hospitals Momin (10) further demonstrates that mobility aids are a rarity among discharged persons who

subsequently become very dependent on family members as they are unable to participate actively in the community. Of the 32 participating spinal cord injured persons who received treatment from general hospitals, 20 became unemployed, whereas only 3 people of the 32 who received treatment at CRP faced unemployment, afterwards. The results offer strong evidence of a statistical significant difference ($p<0.0001$, $x^2 = 19.61$, df=1) in the unemployment rates of the two groups.

Nonetheless, CRP realised that persons with spinal injuries still face difficulties in returning to their previous occupations. In 2002, CRP engaged in a new work rehabilitation programme funded by the United States Department of Labour which aimed at bringing people back to the same sort of occupations they held, before sustaining their injuries. The rationale for the programme was that it often seems sensible to aim for a person to return to his or her previous occupation, since attaining new job skills is expected to pose more of a challenge, than retraining existing ones. Moreover, to see disabled people return to their former occupations and re-engage in society much as before, may help eliminate prejudice surrounding disabled people and their capabilities within the community. The primary objective of such a work rehabilitation programme then, is to retrain people physically until they are able to manage their vocational tasks. This will hopefully bring about positive changes in the attitudes of employers and colleagues, thereby achieving the secondary objective of targeting ignorance and raising awareness about disability.

This article outlines the components of this initiative and assesses its success on the basis of an observational study completed at the end of the three-year programme which ran from 2002 to 2005. The study focuses in particular, on a number of critical issues surrounding disability, poverty and vocational rehabilitation as raised by the participants, including their suggestions for improving the programme. Finally, the issues raised here are considered in a broader context with particular emphasis on the implications for policy makers and organisations working with disabled people.

METHODS

The ultimate aim of the work rehabilitation programme based at CRP's site in Savar, in the Dhaka district of Bangladesh, was to enable participants to return to their previous employment or a suitable alternative. Anyone admitted to CRP were offered a chance to enrol, although

priority was given to persons exhibiting a higher potential for rehabilitation because of the limited number of qualified occupational therapists at CRP's disposal. At the end of the allotted three-year period from August 2002 to June 2005 a total of 109 persons had completed the programme.

Participants were tested on initial assessments in seeking to identify their strong and weaker points, including their overall potential for successfully completing the rehabilitation process. In pre-work training, physical conditioning was given priority with the aim of building strength, endurance and motor function, while focusing on activities relevant to the individual participant's vocational training. The vocational training was then extended to a scheme involving simulated work practice through a strategy of graded activities. Furthermore, in seeking to provide a transition between institutional care and a return to work, issues of productivity, safety, physical tolerance and work behaviour were addressed at this stage. During the final phase of the vocational training scheme, the participants were sent on placements either on site at CRP, or in nearby workplaces. After being discharged from CRP, having completed the core modules of the rehabilitation and vocational training schemes, the participants were offered continuing support through an extended service in the community, entailing follow-up visits at the participants' new worksites.

Of the 109 individuals who completed the programme, 46 participants between the ages of 15 and 50 years were chosen conveniently from Dhaka's surrounding districts, to form the basis of an evaluation report completed at the end of the three-year programme. The participants were selected on the basis of their proximity in relation to the data collectors, to reduce time spent on transportation between CRP and the participants and to facilitate communication. In seeking to relax the interviews and reduce the inconvenience caused to the participants, all interviews were carried out in the homes of the respondents. It took a total of two months to complete the interviews.

RESULTS

Of the 46 respondents, only 6 were female, reflecting the general male to female ratio in spinal cord injury admittances at CRP. The participants mostly had little or no formal education. They were typically from poorer homes in rural environments, with a

disproportionately large number of very young adults among them, suggesting that people in this age group are at greater risk of sustaining serious injuries.

During the rehabilitation process whilst admitted to CRP, the participants would typically receive some level of care from a close relative additional to the hospital care. In seeking to gain a broader perspective on issues discussed with the respondents, the person who had been in charge of looking after their injured family member – and who had typically observed the events unfold from the time of the injury happening – was interviewed as well. Most commonly, the carers were the wives – often uneducated and not involved in income generating activities such that with the loss of their husband's income, the entire family would face severe economic difficulties.

At the time of the interviews, 18 of the 46 participants were engaged in employment completely similar to or much the same as their previous employment. A further five participants were engaged in occupations which bore some or no resemblance to their former occupations. Of the 23 individuals who returned to work only four out of the 15 wheelchair bound individuals were amongst them whereas five out of eight individuals on crutches were reemployed. There is some evidence therefore, that wheelchair users are finding re-employment more challenging compared to people who do not need mobility aids or, who only depend on crutches ($p<0.028$, $x^2 = 4.847$, df=1). This finding is not entirely unexpected as the dependency on – and type of – mobility aid to some extent is indicative of the severity of injuries. However, there is also a possibility that mobility aids accentuate the user's disability making it more difficult for the jobseeker to convince a future employer of his or her capabilities. Moreover, there is a real issue concerning accessibility at work, including transportation to and from work. Problems such as these were identified by the participants in the interviews.

The participants were asked to identify a number of issues which they considered most important in influencing their ability to re-enter the workforce (Table-1).

Table 1. A ranking of the factors (listed in order of importance with the most influential at the top) which proved helpful to participants who were re-employed (on the left), and which were a hindrance to participants who did not regain employment (on the right)

Helpful factors identified by the reemployed participants	Hindering factors identified by the unemployed participants
Success of the WRP*	Physical inability
Cooperation in the family	Inaccessibility at work
Motivation	Motivation
Physical ability	Attitudes in the community
Attitudes in the community	Little effectiveness of the WRP*
Accessibility at work	Lack of cooperation in the family
Attitudes of colleagues and employers	
* Work rehabilitation programme	

The participants who were re-employed, considered the work rehabilitation programme the single most influential factor behind their return. The second most influential factor identified by this group, was co-operation in the family. The greatest hindrances to participants who did not return to work, were their physical inability and inaccessibility at work. Motivation was identified by both groups as a strong determining factor; indeed in the re-employed group motivation was placed before physical ability and accessibility at work. It is remarkable that the two top ranking factors amongst the re-employed participants are also the two bottom ranking factors in the unemployed group. Perhaps this is an indicator that when things go right, the immediate surroundings such as carers and the family get the credit, whereas when things go wrong, blame is put on the affected persons themselves (physical inability) or on the outside world (inaccessibility at work) both of which are difficult to change.

Financial struggles brought on by a low income, or lack of initial capital was reported as the single most problematic issue facing the re-employed participants in their new employment

(Table-2). An inaccessible work environment was also identified by the respondents as a critical issue along with their own physical disabilities. Finally a few persons reported negative attitudes from colleagues and employers. 18% of the re-employed participants reported that they faced no problems at work.

Table 2. A ranking of problems faced by the reemployed participants in their new employment

Financial struggles
Inaccessible work environments
Physical limitations
Unhelpful attitudes of colleagues and employers

When asked what they would like to improve about the work rehabilitation programme, a third of the participants suggested that pre-assessments of the individual worksites be introduced, so that the service providers at CRP gain a better impression of what awaits the participants once there are back at work (Table-3).

Table 3. Suggestions for improving the existing work rehabilitation programme, listed in order of priority

Introduce pre-assessments of worksites
Further focus on follow-up assessments
Introduce some measure of financial assistance
Further involvement of family, employers and the community
Increase the duration of the programme
Include suggestions for workplace modifications

Currently, the vocational training programme is designed on the basis of what the participants tell the programme coordinators about their previous work. Pre-assessments would allow

for the occupational therapists and other service providers to work closer with the participants in tailoring the individual programmes, to better suit the needs of each person. Furthermore, the limited number of qualified therapists available, meant that the occupational therapy department in charge of the programme was struggling to achieve the pre-arranged level of follow-up assessments and the programme was consequently somewhat compromised on this point. The issue of follow-up assessments was raised by almost a quarter of the participants, as critical for improving the programme. 13% of the participants suggested that some measure of financial assistance be introduced to help with initial set-up costs etc. and a further 13% suggested greater involvement of family, employers and the community in the programme.

DISCUSSION

It emerged from interviews with the participants, that individual motivation is seemingly a key factor behind successful work rehabilitation, suggesting that increased focus on post-traumatic depression perhaps through counselling, could be beneficial. It would quite possibly have a positive effect on motivation if, somehow, cooperation from employers and the local community was encouraged and families were more extensively involved in the rehabilitation programme. A further possibility for advancement of relations between the community and the rehabilitation programme, presents itself through the initiation of workplace assessments and follow-up visits when the participants have left the rehabilitation centre and returned to the community. The participants emphasised that the current programme would have benefited from more extensive pre and post-assessments. Follow-up field visits were seen as crucial in ensuring a continuing programme in the community, after the initial training phase at the rehabilitation centre had ceased.

The issue of poor accessibility for disabled people in the built environment, at work and on public transport, was raised several times by most participants and identified as a prime factor preventing disabled people from returning to work. The little efforts put towards building a more enabling environment, bear evidence of a view of disability where disability is apportioned to the physical limitations of disabled people only. This is in stark contrast to the social model of disability where society is seen as disabling people through a combination of social and environmental barriers. Physical limitations need not be disabling in an inclusive environment.

Given the extent of the problem, it is understood that ensuring proper access for disabled people in the community and at work, would almost certainly improve the success rate of reintegration of disabled people into working life and hopefully in the process create a better, safer work environment for all. It seems therefore, that comprehensive work rehabilitation programmes and other programmes involved with disability in societies like Bangladesh, where inaccessibility pose such a barrier, should raise this challenging issue and lobby for the government to do the same. The government needs to take seriously its responsibilities towards disabled people as outlined in the Disability Welfare Act of 2001, by ensuring stricter implementation of existing anti-discriminatory laws and imposing planning and building regulations that advance accessibility.

A remarkably small proportion of persons who are brought for rehabilitation at CRP are female (17) suggesting a reduced risk of spinal cord lesion amongst women. However, some of the discrepancies in the gender distribution of admittances may be attributable to the patriarchal nature of Bangladeshi society, where social and cultural restrictions confine women to the "protection" of men within their family (18). Injured women as a result may be less likely to be brought to the rehabilitation centres. Another consequence resulting from fully relying on the man to provide an income for the family is the serious economic hardship experienced by many families when the husband or father is physically disabled and has lost his ability to work. Alam, Bari and Khan (3) argue that, "For every person who has an impairment and/or disability, 4 to 5 other family members are […] affected". Vocational reintegration is understood to be fundamental in preventing the onset of these serious consequences.

The severe economic constraints imposed by the changed circumstances, may be the ultimate impediment hindering people with disabilities from regaining employment whether it is a question of building an access ramp, buying mobility aids, or raising initial capital for setting up a small business. Hoque, Grangeon and Reed (17), found that the majority of people with spinal cord injury, were labourers carrying heavy loads on their heads or tree-climbers employed in agriculture in rural Bangladesh. This finding is also in accordance with CRP's records on client demographics and suggests that the vast majority of these peoples come from very poor economic backgrounds. Therefore, integral to vocational rehabilitation, is arguably some level of financial rehabilitation. Work rehabilitation programmes may find it worthwhile investing

in some means of initial financial support for its participants either directly, or in Bangladesh, via existing micro-credit schemes.

Despite the difficult issues outlined in this article the work rehabilitation programme described here, managed to successfully reintegrate an estimated 50% of the participating individuals, of whom three quarters returned to occupations very similar to their previous ones. To what extent these individuals would have reintegrated had they not participated in the programme is uncertain. However, previous studies suggest a remarkably low reintegration rate in disabled persons who receive either no treatment or conventional treatment from general hospitals around the country (9, 10). Hence, there is a desperate need for inclusive, non-profitable rehabilitation programmes for all people with disabilities, particularly since the government does little to improve the disability situation. A further point made at the Asia-Pacific regional workshop in 2005, was that "the government does not yet have the required capacity and/or personnel to do a situation analysis of persons with disabilities. Nor does it have the means to gather information on any other socio-economic indicator. Fortunately, the Government also recognises these limitations. So it is highly dependent on the NGOs [non-governmental organisations]" (5). Meanwhile, it is estimated that around 70% of people with disabilities in Bangladesh are still unable to seek medical or rehabilitation assistance because of economic hardship (DIB cited in Alam, Bari & Khan (3)). And this despite government promises (12) to, "undertake appropriate Schemes including Credit-Support programmes for rehabilitation of the persons with disabilities" and to ensure the "Establishment and maintenance of Rehabilitation Centres both at Government and Non-Government level" and to "supply supportive logistics/materials for curative treatment […] to persons with disabilities from Hospitals, Health Complexes and Rehabilitative Centres either cost-free or at low-cost" as stated in the Disability Welfare Act of 2001. The APCD (8) notes that despite the passing of the act in 2001 "the Government has not enacted or amended laws and regulations that cover traffic and industrial/labor laws for promoting health and safety in the workplace in public places, in transport and in the home, as well as set safety standards for equipment used in industry".

The majority of the sampled participants sustained their injuries at work. Hoque, Grangeon and Reed (17) also found that the majority of their study population had sustained their injuries in a work related context. These facts serve to demonstrate the neglected

responsibilities of employers, to protect their employees by adhering to health and safety laws. These are responsibilities that will continue to be neglected until the government recognises its equally important responsibility of enforcing those same laws.

The work rehabilitation programme under study aimed at re-integrating clients into the same sort of employment that they held prior to their injuries. Although specifically designed for people with spinal cord lesion, the programme would easily adapt to include people with a wider range of disabilities. Future projects of a similar nature can hopefully draw on the experiences and recommendations made here.

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