

Training of Mid-Level Rehabilitation Workers for Community-Based Rehabilitation Programmes

Ritu Ghosh^{1*}, Vennila Palanivelu¹, Emma Tebbutt¹, Sunil Deepak²

1. Mobility India, Rehabilitation Research and Training Centre, Bengaluru, India

2. Independent Consultant, Advisor AIFO/ Italy, and ex-head of North-East Regional Office of Mobility India

ABSTRACT

Purpose: *There is a lack of trained rehabilitation professionals, especially in the small towns and rural areas of low and middle income countries. In India, a cadre of mid-level rehabilitation workers, the Rehabilitation Therapy Assistants (RTAs), are being trained by Mobility India, a Non-Governmental Organisation (NGO). This paper aims to assess impact of their training and experiences after the training.*

Method: *Data were collected from 3 different initiatives connected with the trained RTAs: an impact assessment of their training; interviews with RTAs during an evaluation; and a survey of 188 RTAs trained between 2002 and 2019.*

Results: *RTAs were shown to have good skills to provide rehabilitation interventions in the field and are appreciated by clients and other stakeholders. Most of the RTAs work for NGOs in CBR programmes, and in private hospitals and clinics. There does not seem to be a role for them in government services in most countries. The number of trained RTAs remains small in spite of the large needs. This may be due to lack of an accreditation system for RTAs and the low priority given to rehabilitation services in general in some countries.*

Conclusions: *The results provide useful information to strengthen RTA training courses. Training RTAs to provide rehabilitation services in smaller towns and rural areas of low and middle income countries can have a good impact through CBR programmes. However, this impact remains circumscribed to small areas where NGOs are active. Changes are needed in health systems for the inclusion of mid-level rehabilitation workers in primary health care services.*

Keywords: *disability, rehabilitation, mid-level rehabilitation workers, CBR, training, Rehabilitation Therapy Assistants*

* **Corresponding Author:** Ritu Ghosh, Academics Director, Mobility India, Rehabilitation Research and Training Centre, 1st & 1st 'A' Cross, J.P. Nagar, 2nd Phase, Bengaluru 560 078, Karnataka, India. Email: ritugm@mobility-india.org

INTRODUCTION

The World Report (World Bank & World Health Organisation, 2011) estimated that more than a billion people have some form of disability and took note that there is a global lack of rehabilitation professionals. It suggested that “Mid-level training programmes can be a first step to address gaps in rehabilitation personnel in low and middle income countries or to compensate for difficulties in recruiting higher level professionals in high income countries.”

The First Expert Committee on Medical Rehabilitation of WHO had taken note that there were not enough qualified lecturing staff to train physiotherapists and occupational therapists in the low and middle income countries (WHO, 1958).

Now, sixty years later, apart from the big cities in the low and middle income countries, the number of rehabilitation personnel remains insufficient to answer the needs, especially in rural areas. A project by the World Confederation of Physical Therapists (WCPT) has provided evidence of variations in numbers of physical therapists across the world, in which the estimates of the ratio of physical therapists to populations range from a high of 1:354 people in Finland, to a low of 1:530,375 in Malawi (WCPT, 2014).

While low and middle income countries have fewer rehabilitation professionals, another challenge is that they are mostly based in the large towns. For example, a study in Vietnam showed that more than 80% of the rehabilitation professionals were employed in big cities and urban centres (Hai & Nhan, 1995). The World Report on Disability also found bigger unmet needs for rehabilitation professionals in rural areas than in urban parts of different countries (World Bank & WHO, 2011).

A WHO study (Anand & Fan, 2016) on the distribution of health workers in India underlined the wide variations in the ratio physiotherapists to population among different states and between urban and rural areas. These surveys count physiotherapists among “other health workers” and do not provide precise data. Studies have reported that there are around 50,000 trained physiotherapists (PTs) in India, which would mean 1 physiotherapist for about 20, 000 people (Sahu & Bharati, 2014).

CBR and Mid-Level Rehabilitation Workers

In 1969, the International Society for Rehabilitation of the Disabled (later renamed Rehabilitation International) took note of the lack of the rehabilitation

professionals, more so in low and middle income countries and suggested the preparation of a new type of personnel (Helander, 2007).

The need for mid-level rehabilitation workers was also raised with the introduction of the Community-based Rehabilitation (CBR) approach by the WHO in the early 1980s (Helander et al, 1989). The joint Position Paper on CBR did emphasise the need for referral rehabilitation services through primary health care centres (PHCs): “The health sector needs to make serious efforts to ensure that rehabilitation is part of PHC” (ILO, UNESCO & WHO, 2004).

Over the past decades, the CBR approach has been adopted in a large number of countries. A survey in 29 African countries showed that in many countries CBR was adopted as the national rehabilitation strategy (WHO, 2004). According to the CBR Guidelines (WHO, 2010), there were CBR programmes in more than 90 countries in the world.

There is ample evidence about the effectiveness of CBR for people with disabilities in low- and middle-income countries (Iemmi et al, 2015). Through CBR, the needs of people with disabilities can be met within their environment, with the involvement of family members and the community where the use of highly trained health professionals is ineffective in addressing the magnitude of the problem (Thomas & Thomas, 2003).

However, the lack of rehabilitation professionals continues to be an issue in CBR implementation. The absence of medical rehabilitation reduces the effectiveness of CBR (Nganwa et al, 2013). Without specific rehabilitation personnel, CBR becomes a nice philosophy without having any practical meaning for people with disabilities (Cornielje et al, 2013).

With the wider implementation of CBR programmes, the issue of mid-level rehabilitation workers continues to be raised (Finkenflugel & Rule, 2008; Vuuren & Aldersey, 2018). A systematic review on the role of alternative cadres of rehabilitation personnel in CBR had concluded with a plea for the creation of new cadres of alternative health workers for its implementation (Mannan et al, 2012).

Training of Rehabilitation Therapy Assistants

CBR projects were initiated in various countries in the early 1980s and training of mid-level workers was piloted in South Africa by early 1990 in response to the

need to develop community rehabilitation care. It was reported that the training course for a new cadre of mid-level CBR workers or community rehabilitation facilitators (CRF) was introduced in South Africa in 1990. These CRF were trained for two years in community development, which also included social and physical rehabilitation. Trained CRF were registered with the Occupational Therapy Board of Health Professional Council of South Africa, provided professional status and had the opportunity to be employed as therapy assistants within a government set up (Rule et al., 2006, p.274, 275). A similar approach was adopted for mid-level rehabilitation workers from Guyana, where the training of Rehabilitation Therapy Assistants (RTA) was initiated in 1997. The Ministry of Health “created a new category of intermediate level rehabilitation professionals, the rehabilitation assistants, who receive training for 18 months and whose training curriculum contains elements of physiotherapy, occupational therapy and speech therapy” (Deepak, 2007).

When Mobility India started RTA training in 2001-02, it was the only institution in India to offer such a course. Since then, according to a recent report from the Rehabilitation Council of India (RCI, 2019), there are 3 more institutions engaged in providing RTA training courses in the country. In 2007, Nepal started a training programme for rehabilitation assistants, as a basic level technical workforce in the field of physiotherapy and rehabilitation (Council for Technical Education and Vocational Training - CTEVT, 2014).

However, RTAs have a longer history in high income countries where there are intermediate-level rehabilitation professionals such as rehabilitation assistants, who work under the supervision of senior rehabilitation professionals. For example, in the UK, the rehabilitation assistants are junior multidisciplinary grade persons who combine elements from nursing, occupational therapy, physiotherapy and speech and language therapy (Knight et al, 2013). In Canada, they are also referred to as Rehabilitation Assistants (RAs) or Occupational Therapy Assistants (OTAs), and need to complete a 2-year long diploma course (National Physical Assistants’ Assembly - NPAA, 2009).

In Queensland (Australia), the Community Rehabilitation Assistant Workforce Project (CRAWP) was started to answer the needs of a growing ageing population, as workforce shortages, advancing technology and increasing consumer expectations required new models for delivery of healthcare services (Queensland Health, 2008). They also provided additional training to existing rehabilitation professionals, to support the community rehabilitation programme (Knight et al, 2008).

To sum up, over the past 4 decades the CBR approach has been adopted by a large number of low and middle income countries but they lack sufficient numbers of trained rehabilitation personnel. For this, two solutions have been proposed: 1) providing support through PHCs and 2) training a new cadre of mid-level rehabilitation professionals. A recent technical paper by the World Health Organisation (WHO, 2018) again advocates for the inclusion of rehabilitation workers in PHCs, while accepting that most low and middle income countries function with limited resources. For example, in the PHC services in India, rehabilitative and palliative care services are not included (Anant et al, 2016).

While many high and a few low and middle income countries, such as Guyana, India and Nepal, are training RTAs as a mid-level cadre of rehabilitation personnel, there are hardly any published studies regarding this new cadre of personnel from low and middle-income countries and their role in CBR programmes.

Accreditation and Professional Bodies for Rehabilitation Therapy Assistants

Introduction of a new cadre of workers in the health services requires an adequate accreditation system as well as a definition of policies regarding recruitment and career opportunities of the new workers, along with availability of financial resources to cover the additional costs of employing this new cadre. A study from Uganda found that lack of a proper accreditation system for a new category of nursing staff, lack of policies regarding their roles and lack of budget allocation had a negative impact on the introduction of this new cadre of nursing staff (Matua et al, 2013).

An accreditation system also leads to the development of a professional association along with standardisation of roles, competences and training content and duration. While high income countries have accreditation systems for RTAs, none could be identified in any low and middle income countries. Only one professional body of RTAs was identified in Canada, where the rehabilitation assistants organised themselves and were organising an annual national assembly with regular meetings and annual conferences (NPAA, 2009).

Training of Rehabilitation Therapy Assistants at Mobility India

Mobility India is an Indian NGO based in Bangalore, with more than 25 years of experience working with grassroots organisations in community-level programmes. In 2002-03, Mobility India started a one-year training course for mid-level rehabilitation workers designated as Rehabilitation Therapy Assistants

(RTAs), focused on teaching physiotherapy and occupational therapy skills for paediatric and adult conditions common in low-income countries. This training is recognised by the Rehabilitation Council of India (RCI) since 2004.

While planning the training, 3 settings were identified where RTAs might work: 1) in rehabilitation institutions; 2) in community outreach programmes; and 3) in CBR programmes. It was expected that the RTAs' work would be guided and supervised by rehabilitation professionals in rehabilitation institutions and in outreach programmes. However, it was felt that in CBR settings, especially in rural areas, where other rehabilitation professionals were scarce the RTAs would be working independently (Mobility India, 2014).

Overall, between 2002 and 2019, a total of 188 RTAs were trained at the Rehabilitation Research and Training Centre, including 141 persons from India and 47 persons from 11 other countries. During 2013-14, Mobility India was involved in the implementation of a USAID funded project for strengthening the rehabilitation interventions of institutions and rehabilitation professionals in conflict-affected areas in 8 states of east and north-east India. As a part of this project, 19 additional RTAs were trained in 2013-14, taking the total number of students that year to twenty-seven.

Aim

This paper aims to assess impact of training of RTAs and their experiences after the training, in order to elicit information about the importance and challenges of the introduction of this cadre of mid-level rehabilitation worker; and to strengthen and improve the on-going RTA training programme at Mobility India.

METHOD

The study brings together information from three separate evaluation initiatives related to RTAs trained at Mobility India. The methodology of each evaluation is presented separately in the chronological order it was carried out.

a) Methodology of Impact Assessment of 10 years of RTA Training

This assessment was carried out in 2014. It involved interviews with 26 RTAs – 18 from India (working with 9 different organisations) and 8 from Nepal (working with 4 different organisations). The participants were selected through purposive sampling to ensure inclusion of persons working in different geographical and

clinical contexts and having a minimum of 1 year of field work experience after the completion of training.

An assessment tool developed by the International Society of Prosthetics and Orthotics (ISPO) was adapted for this purpose, using the RTA training programme competencies as a framework. A mixed-methods (qualitative and quantitative) approach was used to gain a broader understanding of the settings in which the RTAs worked and the challenges they faced. This questionnaire was pilot tested on 2 RTAs.

A written questionnaire was sent to the selected RTAs by email to be filled in. It focused on the following 7 elements of RTAs' work – (i) compiling and updating of clinical records, (ii) carrying out clinical assessment focusing on activities and participation in line with the International Classification of Functioning, Disability and Health (ICF, 2001), (iii) implementation of suitable rehabilitation interventions, (iv) setting up of functional goals with the clients, and their follow-up, (v) teamwork, networking and referral skills, (vi) communication skills, and (vii) professional ethics and development.

This phase was followed by interviews by a study team, composed of one external evaluator supported by two RTA trainers, in 13 different locations in India and Nepal. Five languages (including English) were used during the interviews. The interviews were used to clarify and expand on the answers given in the questionnaire. The additional information was added as notes to the questionnaires. Five (5) clinical records maintained by each RTA were reviewed and the RTAs were asked to demonstrate rehabilitation interventions which they used in their daily work. Each RTA was scored on his/her skills. An assessment framework with three-point rating scale was developed and used based on competencies expected to be achieved after one year of training. All members of the visiting team scored the RTA, basing their scores on all of the data collected throughout the visit, plus general observations during the visit. Scores were compared and for any scores that significantly differed, the team discussed and agreed a score.

In addition, semi-structured interviews with 23 clients or their families receiving services from the RTAs, were conducted to understand their perceptions regarding the quality of services provided by the RTAs. These interviews also touched on any changes in activities and participation of the clients following the interventions based on the ICF. These were audio-recorded and later transcribed.

Finally, the supervisors of the RTAs were sent a questionnaire by email, regarding the RTAs' competencies, and were asked to send it back on completion, in an unmarked envelope. Supervisors were assured that their responses would be kept confidential.

b) Methodology of Evaluation of the USAID Funded Project

The objective of the USAID funded project of Mobility India was to strengthen rehabilitation services in conflict-affected areas in the north-east of India. It involved different non-governmental organisations as local partners. During 2013-14, the project provided scholarships for 19 persons to attend RTA training at Mobility India.

During this project, 3 handbooks on rehabilitation interventions used for RTA training were revised and re-published in English. At the same time, they were also translated and published in 2 regional languages. After the training, each RTA was given a copy of the handbook in their preferred language.

In 2015, an external evaluation of this project was carried out by visiting 7 partner organisations in 5 states. Semi-structured interviews with 6 RTAs were conducted by 2 external consultants. These interviews covered 3 areas: 1) their experience during the one-year RTA training course in Bangalore; 2) their work-related satisfaction, and; 3) the challenges they faced in their daily work. They were also asked about the usefulness of the RTA training handbooks. No one from Mobility India was present during these interviews.

Some of the discussions between the authors and the two external evaluators, as well as the findings from their report related to RTA interviews, are presented in the result section.

c) Methodology of the General Survey among all RTA Graduates

In January 2020, a general survey was carried out through social media, telephone and/or email by Mobility India personnel. An attempt was made to contact all the 188 persons from India and students from the other 10 countries who had completed RTA training at Mobility India between 2002 and 2019.

The main objective of the survey was to understand their present area of work, their employers and whether they had completed other training courses after the RTA training.

RESULTS

This section begins with a description of the results of the general survey of all the RTAs, which provide a broad overview about their work after the completion of RTA training. This is followed by the findings from the impact assessment of RTA training in India and Nepal. Finally, the information collected through the RTA interviews, in the external evaluation of the USAID project in the north-east of India, is presented.

a) General Survey among all RTA Graduates of the training provided by Mobility India

A total of 188 students completed the RTA training between 2002 and 2019. They consisted of 119 women and 69 men. Among them, 20.7% (39 students -15 male and 24 female) were persons with disabilities. Out of the 188 students, 80.3% (151 persons - 98 females and 53 males) responded

The average number of students in the RTA training course each year is 11, while the median value is 8 students. The number of new students admitted each year varied from as few as 2 persons in 2010-11 to as many as 27 in 2013-14. There were some operational reasons for these variations. For example, during 2013-14 the relatively high number of students was due to additional scholarships provided by a USAID funded project. Table 1 presents the annual number of new students.

Table 1: Number of RTA Students each Academic Year at Mobility India

Academic Year	No. of students	Academic Year	No. of students
2002-03	8	2011-12	7
2003-04	10	2012-13	8
2004-05	17	2013-14	27
2005-06	16	2014-15	12
2006-07	15	2015-16	16
2007-08	7	2016-17	9
2008-09	11	2017-18	8
2009-10	8	2018-19	7
2010-11	2		

Geographical Representation of RTA Students

The 188 RTA students came from 12 countries, including India. While the students from India, Nepal and Sri Lanka were both male and female, those from the other countries were either all male or all female.

Of the 119 female students, 93 (78.1%) were from India while 26 (21.9%) came from 8 other countries i.e. Angola, Bangladesh, Ethiopia, Myanmar, Nepal, Sri Lanka, Tajikistan and Yemen.

Of the 69 male students, 48 (69.6%) were from India while 21 (30.4%) had come from 5 other countries i.e. Nepal, Nigeria, North Korea, Somalia and Sri Lanka.

Employment Situation of Female RTAs

Of the 119 female RTAs, 98 persons (82.3%) responded during the survey. Among the remaining 21 persons, 4 (3.4%) had passed away (3 from India and 1 from another country), while 17 (14.3%) could not be contacted. Of those contacted, 58 (48.7%) were working in the disability sector but 40 persons (33.6%) had changed their area of work. Table 2 presents an overview of their work-situation as of January 2020.

Table 2: Survey Results for Female RTAs: Area of Work

Country	Total RTAs	Died	No Contact	Working in Disability	Not Working in Disability
India	93	3 (3.2%)	15 (1.1%)	40 (43.1%)	35 (37.6%)
Other	26	1 (3.8%)	2 (7.7%)	18 (69.3%)	5 (19.2%)
Total	119	4 (3.4%)	17 (14.3%)	58 (48.7%)	40 (33.6%)

Of the 58 persons working in the field of disability, 39 (67.2%) worked in CBR programmes for national or international NGOs. Among the 35 who were no longer working in disability, 14 were now housewives who had stopped working after getting married and all of them were from India.

The data shows that a much higher percentage of women from outside India were engaged in disability-related work as compared to graduates from India. This difference is partly due to the fact that the Indian women stopped working after their marriage. In any case, Fisher's test shows that the difference between the two groups is statistically not significant (two-tailed P value is 0.0511).

Employment Situation of Male RTAs

Of the 69 male RTAs, 53 (76.8%) responded. Among the remaining 16 persons, 1 from India (1.4%) had died while the other 15 (21.8%) could not be contacted. Among the 53 persons who were contacted, 41 (59.4%) were working in the disability sector while the other 12 persons (17.4%) had changed their area of

work. Table 3 presents an overview of their work situation as of January 2020.

Table 3: Survey Results for Male RTAs: Area of Work

Country	Total RTAs	Died	No Contact	Working in Disability	Not Working in Disability
India	48	1 (2%)	6 (12.5%)	33 (68.8%)	8 (16.7%)
Other	21	0	9 (42.8%)	8 (38.1%)	4 (19.1%)
Total	69	1 (1.4%)	15 (21.8%)	41 (59.4%)	12 (17.4%)

Of the 41 persons working in the field of disability, 28 (68.3%) worked in CBR programmes either with national or international NGOs.

Among the male RTAs, the percentage of persons still working in the field of disability was much higher in India as compared to those from other countries. However, Fisher's test shows that the difference between the two groups is statistically not significant (two-tailed P value is 0.4337).

Subsequent Higher Education among RTAs

Among all the contacted persons, a total of 26 (17.2%) gained additional educational qualifications after the RTA training.

Of the 98 females who were contacted, 13 (13.3%) obtained additional educational qualifications i.e. 6 in disability-related areas (including 4 who did training in special needs education), 3 in other areas of healthcare and 2 in other general areas.

Of the 53 males who were contacted, 13 (24.5%) obtained additional educational qualifications i.e. 11 in disability-related areas (including 6 who did training in special needs education) and 2 in other areas of healthcare.

Registration with Professional Associations

None of the countries to which the students belonged had a specific professional association for the RTAs, and none of the 151 graduates were registered with any such body. However, 41% of the RTA students from India, working in the disability sector, were registered with the Rehabilitation Council of India, which recognises their professional qualification.

Employment of RTAs

Among the 99 RTAs (58 female, 41 male) who were active in the disability sector, 76 (76%) were employed in community programmes run by NGOs and governments, 14 (14%) were employed in hospitals/clinics, while the remaining 9 (9%) did not specify the type of employers they were working for.

RTAs from only 2 countries (Tajikistan and Sri Lanka), without any additional qualifications, were employed in Government services. In all the remaining countries, including India, the only persons working in Government services were those who had completed additional training courses such as a Bachelor's or a Master's degree in special needs education.

b) Impact Assessment of 10 Years of RTA Training

A total of 26 persons who had completed RTA training at Mobility India were selected through purposive sampling, to ensure geographical representation from different parts and organisations in India and Nepal. They included 18 women (69%) and 8 men (31%), with an average age of 32 years. While 18 of them (69%) were from India, 8 were (31%) from Nepal.

In the sample, 19 RTAs (73%) had been working for 5-10 years while 7 (27%) had work experience of less than 5 years. As many as 21 RTAs (81%) were still working for the organisation which had sent them to the RTA training.

All of them had first filled in a questionnaire, and were later interviewed to assess their knowledge, practical rehabilitation skills and clinical record-keeping.

Professional Practice, Work Settings and Caseloads

While 24 RTAs were working for non-governmental organisations (NGOs), 1 person worked in a private clinic and 1 person had set up her own social enterprise engaged in training women with disabilities. While 23 of them (88%) were engaged in clinical work related to rehabilitation in CBR programmes or referral clinics, 3 (12%) had managerial roles.

Among the 23 RTAs engaged in clinical work, the majority (20 persons) worked alongside other rehabilitation professionals such as physiotherapists, occupational therapists, prosthetic and/or orthotic technicians, as well as with CBR workers, special educators, nurses, doctors and counsellors.

The RTAs provided interventions to an average of 29 clients during a 43-hour working week. They worked with persons who had a wide range of conditions including cerebral palsy, stroke, post-poliomyelitis, spinal injury, intellectual

disability, clubfoot and amputations. Only one person reported a specialisation in a single condition (spinal injury). During their work, the RTAs also made referrals to diverse specialised services, among which the most common referrals were those to orthopaedic and neurology departments of secondary hospitals.

RTAs were asked about the interventions most commonly provided to the clients. For them, the most common goal of intervention was to improve activities of daily living. Muscle-strengthening, increasing the range of movement/stretching and developmental exercises were also frequently mentioned. The most observed interventions were impairment-related stretching and strengthening during practical demonstrations and in clinical records.

At the same time, the RTAs reported carrying out diverse activities across the five domains of the CBR matrix, which were interestingly not documented in the clinical records. For example, the RTAs described participation in the following activities: a monthly puppet show to educate women on antenatal care; supporting women who were victims of domestic violence to seek protection and justice through the legal system; referral to vocational training programmes; working with parents and schools to ensure that children with disabilities attend school; fabrication of developmental aids; and, organising cultural events for children with disabilities.

Overall, the rehabilitation skills of the RTAs were at par with or above the expected levels. As a cohort, their strengths were in networking and making referrals, teamwork and communication with clients. The interviews revealed two weak points i.e. lack of confidence in direct communication with other professionals, especially those with higher-level qualifications, and inadequate documentation of their interventions, as seen from assessing the clinical records. Difficulties of communication with other professionals seemed linked with hierarchies at the workplace and perceived lack of status. Documentation of re-assessment of clients, goal-setting and intervention planning were either absent or were often impairment-focused only, and lacked information regarding activity and participation.

Clinical Supervision Support at the Workplace

Of the 23 persons engaged in clinical work, 20 RTAs (86.9%) had a designated clinical supervisor and 3 (13.1%) were supervised by a non-clinical manager or director. Their supervising professionals included physiotherapists, speech and language therapists, nurses, special educators, and occupational therapists.

Twenty-one RTAs (80.7%) also supervised other persons, including physiotherapy and RTA students, volunteers, CBR workers, social mobilisers and special educators. They all reported being able to seek advice on complex cases, and gave examples of seeking advice from doctors, physiotherapists, occupational therapists and prosthetic/orthotic professionals, among others. Thus, the majority of the RTAs were part of a supportive network and were not left to fend for themselves.

Professional Development Plans

None of the RTAs had a formal professional development plan. When asked, 25 of the 26 RTAs reported that they needed more professional development opportunities, including training, to improve their clinical skills. The expressed needs were broad and included areas such as applying course work, improving documentation skills, getting experience in other development sectors, and learning skills about specific disabling conditions.

After the completion of RTA training, about 50% of them had participated in some formal learning activity, including physical or correspondence courses. Several RTAs cited high cost as a barrier to accessing formal learning opportunities. Only 5 of them reported that they had taken part in research activities within their organisation.

Almost all the RTAs from Nepal raised the issue of lack of official recognition for their training and its negative impact on their employment opportunities.

Feedback from the Supervisors

Overall, there was very positive feedback from supervisors regarding the work of RTAs in various areas including networking, teamwork, professionalism and communication skills. Of the 25 supervisors, 24 (96%) said that the skills learned during the RTA training had fully prepared them for working in the disability sector, while 16 of them (64%) said that they would recommend the RTA training to other organisations.

Feedback from Clients

The overall feedback from the 23 service-users and/or their families was positive.

The open-ended questions enabled investigators to gather qualitative data regarding the experience of clients with their RTAs. For example, one service user said:

“She plays with the children and treats us with respect. She speaks in a friendly way. She comes every week even when we are sick.”

Another service user described her experience:

“He teaches me and my family members on how to carry out the therapy techniques. He has very good attitude and communication skills. He has a good smile.”

Yet another service user shared his experience:

“We were frightened to go for surgery. He (the RTA) persuaded us that it was the right thing to do. He explained about exercises after surgery and if we don't do those exercises, it will go back to the same condition and the surgery will be a waste.”

According to the clients, most RTAs have made them aware of different local community-, medical -and education - services and, in some cases, assisted them in gaining access to these.

A few gaps also emerged from the feedback of clients. For example, the majority of clients felt that the RTAs did not help them to better understand their rights. One service user explained,

“She has only explained to me about the ID card but not about any other services.”

Approximately 50% of the clients did not have a proper understanding of their disabling condition. Other areas for improvement included ensuring that clients understand the services available to them and providing information about the prevention of complications. Overall, there was poor awareness of prognosis among the clients.

Almost all the clients (22 out of 23) reported improvements in functioning at the activity and/or participation levels, following the interventions of the RTAs. For example, a young woman explained that she had enrolled in a vocational training programme and subsequently gained full-time employment as a bookkeeper. Parents of a child with cerebral palsy explained that he had learned how to

dress and wash himself and, after provision of a wheelchair, started attending school, moving independently within the community and had even competed in a National Para-Olympic sports event.

c) Findings from RTAs during External Evaluation of the USAID Project

The USAID project had provided scholarships for 19 persons from the north-eastern part of India to attend the RTA training course in Bangalore during 2013-14. During the external evaluation carried out in 2015, six of those RTAs were interviewed by 2 external consultants, without any staff member of Mobility India being present.

The interviews confirmed the findings of the RTA assessment carried out one year earlier and showed that all the 6 RTAs were engaged in providing clinical rehabilitation support to persons with disabilities referred by the CBR workers from the field. They also took part in supervision and training of CBR workers and participated in field activities related to other domains of the CBR matrix. Discussions with their employers showed that they were satisfied with the work of RTAs.

The opinions of the 6 RTAs were sought regarding the 3 new handbooks prepared by Mobility India for the RTA training during the USAID project. They felt that the books were relevant to the needs of RTAs in the field, and the language was simple and easy to understand. According to them, the different types of disabilities and the related interventions were explained in such a way that they could be used as a reference text at the community level to provide advice and interventions for persons with disabilities. They felt that having the handbooks in the local languages greatly facilitated their usefulness.

One of the RTAs described her situation:

“The scholarship for becoming RTA was a good opportunity for me, because my family did not have money to send me for any training. I like the work I do, and I am very happy when families recognise and appreciate my work. However, RTA is not like a physiotherapist. I can’t work in a hospital, I can only work with NGOs.”

They also provided important feedback regarding some of the limitations of the RTA training. The most important challenge they had experienced during training was with regard to the limited opportunities for practical training. Practising hands-on skills on persons with different disabling conditions was

difficult and limited as there were many students. Thus, RTA students were often told to practise on each other, which did not give them the experience gained from practising on persons with different disabling conditions.

Another challenge was that the RTA training was focused on clinical skills related to rehabilitation, while in the NGOs where they worked they were asked to carry out additional activities related to CBR such as organising self-help groups, for which they had received no or limited training.

A third challenge was related to the sustainability of their roles. During their training and the subsequent placement in the NGO, they had received a 'trainee stipend' from the USAID project budget. However, many of the NGOs did not have sufficient funds to continue to provide similar amounts as salaries to them after the project-funding ended.

The evaluation report concluded that "RTAs serve an important function in CBR settings. They assess persons with disabilities, set treatment goals, counsel families, select and carry out appropriate interventions, recommend home adaptations, and facilitate the utilisation of local resources for the integration of persons with disabilities in education, work and community. More than 90% of these RTA trainees come from rural settings where they are the first (and often only) resource available for families of persons with disabilities."

DISCUSSION

The three investigations into the roles and challenges of RTAs trained at Mobility India together provide complementary information that can be useful for improving and strengthening the current RTA training courses. At the same time, they point to the complexities and challenges of introducing a new cadre of mid-level rehabilitation workers into the healthcare systems of countries where community rehabilitation services have a low priority.

Apart from the general survey, for which students from different countries were contacted, the other 2 investigations focused only on students from India and Nepal. Thus, the findings from this exercise and the following discussion refer mainly to India and, to a lesser extent, to Nepal.

Role of RTAs in CBR Programmes

All the 3 investigations confirmed the importance of RTA training courses in

preparing a cadre of workers capable of supporting CBR programmes, specifically through provision of clinical rehabilitation services and identifying needs for referral support. Globally, almost 68% of the contacted RTAs were working in CBR programmes.

Information for Improving RTA Training

Collecting qualitative information from different stakeholders – RTAs, their clinical supervisors and clients - provided an opportunity to understand the needs in the field and modify the RTA training programme so that it would respond better to those needs expressed by various stakeholders.

An analysis of the collected information raised issues in 2 kinds of training needs i.e. (i) training needs related to clinical rehabilitation competencies, including documentation and record-keeping; and (ii) training needs related to working within different domains of the CBR matrix.

With respect to the clinical rehabilitation competencies, an important step taken by Mobility India was the preparation of 3 handbooks in local languages, which helped the RTA students to learn better and to use those handbooks for reference whenever they encountered certain specific conditions in the field. Coming from different parts of India and the world, for most of them English was a second or third language, while most of the RTA training was in English. Thus, having easy-to-understand learning materials in their local languages became a significant facilitating factor for these students.

Mobility India has also designed a trainer's guide to be used in conjunction with the handbook, that is to be used by trainers of RTA students. This guide is meant to help new lecturing staff to develop their teaching skills, and it also guides trainers on how to assist students to understand the practical issues they will encounter when working in the field.

The issue of strengthening rehabilitation competencies was raised both by RTAs working in clinical services in hospitals and clinics, as well as by persons engaged in CBR programmes. However, since the RTA training is a one-year certificate course and cannot be compared to a Bachelor's degree course in physiotherapy or occupational therapy, there may have been some unrealistic expectations regarding the graduates, both from the employers as well as from the students.

Another area of weakness was related to goal setting and selecting and providing interventions which improve activities and participation in line with the ICF,

as activities of RTAs often focused on impairments only. This bias is probably related to the short duration of the training course, new lecturing staff being less familiar in practising the ICF model, along with limited experience in ICF-based goalsetting and interventions.

The second area of training needs, related to working within different domains of the CBR matrix, poses different challenges because it is a wide area encompassing education, livelihood, social participation and empowerment. For example, the interviews with the clients highlighted and contextualised areas for improvement in the RTA training in providing information about rights, entitlements and different specialised services. Whether a module on these aspects can be added to the RTA training curriculum needs to be explored.

The discussions about the lack of rehabilitation professionals in low and middle income countries and the need for introducing mid-level rehabilitation workers to support community rehabilitation programmes, focus mainly on the needs for clinical rehabilitation. The RTA training course under Mobility India focuses on clinical skills. Such a focus works well for RTAs who find work in hospitals or clinics, where they are placed alongside other rehabilitation and health professionals. On the other hand, CBR programmes which employ the mid-level rehabilitation workers are looking for persons who may have broader and additional skills in different domains of the CBR matrix.

These two groups of persons who come for RTA training –those who are going to work in clinical rehabilitation in clinics and centres, and those who are going to work in multi-sectoral CBR programmes - have many common learning areas, but they also have some specific learning needs, which can and should be made more explicit at the beginning of the RTA training. While maintaining the focus on clinical skills, RTA training can also consider the possibility of additional learning on holistic understanding of the CBR matrix.

The external evaluation of the USAID project revealed the concerns of the RTA students in getting sufficient opportunities for practising clinical skills. It is likely that the sudden increase in the number of RTA students during 2013-14 (there were 27 students compared to the average of 11 students per year), might have created this difficulty. Thus, the trainers at Mobility India need to consider the optimum number of students who can receive adequate opportunities for practical training along with sufficient exposure to working with people with disabilities and their families.

Lack of Professional Development of RTAs

Though the RTA training course is recognised by RCI in India, only about 17% of the students did follow additional training. This low level of professional development among RTAs is probably linked to their origins from rural areas and the fact that they come from resource-poor families.

The issue of financial constraints faced by NGOs working in rural areas was also highlighted in the evaluation of the USAID funded project. Findings showed that NGOs employing graduates did not have sufficient resources to pay for these RTAs once project funds were finished.

Another reason for the low professional development of RTAs might be lack of proficiency in English, which is also related to their resource-poor family backgrounds. Most professional training courses in India, including the RTA training course, are offered in English. To help persons from rural areas, they are given additional English lessons during the RTA training courses, and the trainers from Mobility India provide some extra lessons in their regional languages. However, this may not be sufficient to increase their English proficiency and subsequently, this may hamper their learning.

Limited Number of RTA Students

As shown from the literature review, there is a lack of rehabilitation professionals in smaller towns and rural areas of low and middle income countries. According to a news report from 2017, India had about 1 physiotherapist for 10,000 people. Since most of them live in bigger cities, the actual ratio would be much worse in smaller towns and rural areas. Although a larger number of RTA students from India might have been expected to be trained, yet the annual number of students has been very small over the past 2 decades. This could be linked to their lack of access to government jobs.

RCI registration entitles RTAs to practise as rehabilitation professionals/personnel in any part of India. However, it does not allow them to apply for the roles of rehabilitation professionals in Government hospitals; this requires a degree in physiotherapy or occupational therapy. In fact, the survey showed that the only Indian RTA students working in Government services were those who had gained additional qualifications such as a Bachelor's degree in special education. All the remaining RTA students without additional qualifications were working in CBR programmes or in private hospitals and clinics.

India has had pilot disability programmes in some districts where these RTAs can be employed. However, these are limited to a few areas and have not been expanded. This situation can be contrasted with Guyana, which has a total population of less than 1 million persons. There, an RTA training course of 18-months duration was started in 1997 and, on average, there are 20 students in each course. These trained RTAs easily find employment in Government service, as mid-level rehabilitation workers are a recognised cadre within health services at regional and provincial levels (Maison Halls, 2019). Thus, to convince policy makers that RTAs can play a meaningful and much needed role in addressing the rehabilitation needs of people with disabilities, serious and robust advocacy and lobbying directed at relevant government ministries is needed for the expansion of disability programmes and services within and under the responsibility of primary health care services in rural areas.

Difficulties of Introducing the Cadre of Mid-Level Rehabilitation Workers

The health systems of most low- and middle-income countries do not have a specific cadre of mid-level rehabilitation workers at PHC and community levels. This can be partly explained by the increased privatisation and the budget cuts for health services over the past couple of decades across different countries. At the same time, as shown by the repeated calls from the World Health Organisation for the inclusion of rehabilitation services in the primary healthcare services, it also denotes the low priority given to rehabilitation services. At the same time, one notices that global stakeholders including rehabilitation professional bodies are promoting rehabilitation in universal health coverage but with a strong emphasis on the involvement of therapeutic professions at secondary and tertiary health care levels, with limited attention for primary and community care levels.

Limitations

Bringing together the findings from 3 different initiatives, carried out in different time periods with different objectives can be seen as a limitation. One study, looking at different aspects of RTA training and employment after the training, probably would be more comprehensive.

Though the impact assessment among 26 RTAs was carried out by an external consultant, she was accompanied by two of the trainers of the RTA course who helped in translation and information collection. This might have created a bias in the collection of information and thus in the findings.

Another limitation was that the majority of the 26 RTAs involved in the impact assessment were working as members of rehabilitation teams that included other rehabilitation professionals. This made it difficult to assess whether some of the outcomes reported by the clients were due to the interventions of the RTAs or of the other team members. However, the issue of attribution is always a challenge when doing impact studies, but we are confident that the RTAs at least had a contribution in the positive outcomes that were noticed.

CONCLUSION

Different international reports and policy documents lament the lack of rehabilitation services in the primary health care system, especially in rural areas of low-and middle-income countries. Many of them have suggested the introduction of the cadre of mid-level rehabilitation workers. This study shows that with one year of training, this cadre of workers, the Rehabilitation Therapy Assistants, can play a useful role in CBR programmes in areas where no or few other trained workforce is available for the provision of rehabilitation services.

However, training this cadre of rehabilitation workers without appropriate changes in health systems, such as an accreditation system, the inclusion and recognition of the cadre within civil services structure and career opportunities for this cadre, does not resolve issues related to the lack of rehabilitation professionals. While RTAs in some high income countries are recognised and are part of the healthcare system, this is missing in most low and middle income countries. For example, although the RTAs are registered in India, there is no provision for mid-level rehabilitation workers within the national health system in India. As long as no priority is given to rehabilitation services in the health systems, and in spite of the existence of RTA training courses, such training programmes can only provide trained workers to work in CBR programmes of NGOs and their numbers, coverage and impact will remain limited.

The global calls for mid-level rehabilitation workers and the introduction of rehabilitation services as a part of primary health care services are constantly repeated. "The Guide for Action – Rehabilitation in Health Systems" launched by the WHO in 2019 as a part of the Rehabilitation 2030 action plan, again calls for the integration of rehabilitation in the primary health care (WHO, 2019). The RTA training courses of Mobility India provide knowledge and skills to mid-level rehabilitation workers through the NGOs running CBR programmes in areas which lack other alternatives. Such training courses can reach and benefit

many more persons only if there are changes in the health systems and greater priority given for the rehabilitation services.

Mobility India's RTA training programme provides insight into the training of mid-level rehabilitation workers and their role in primary health care services. Others may learn from it and contribute to the further development of this cadre and as such, can draw lessons for the expansion and scaling up of this much needed cadre for ensuring access to rehabilitation services, especially in rural and underserved areas.

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