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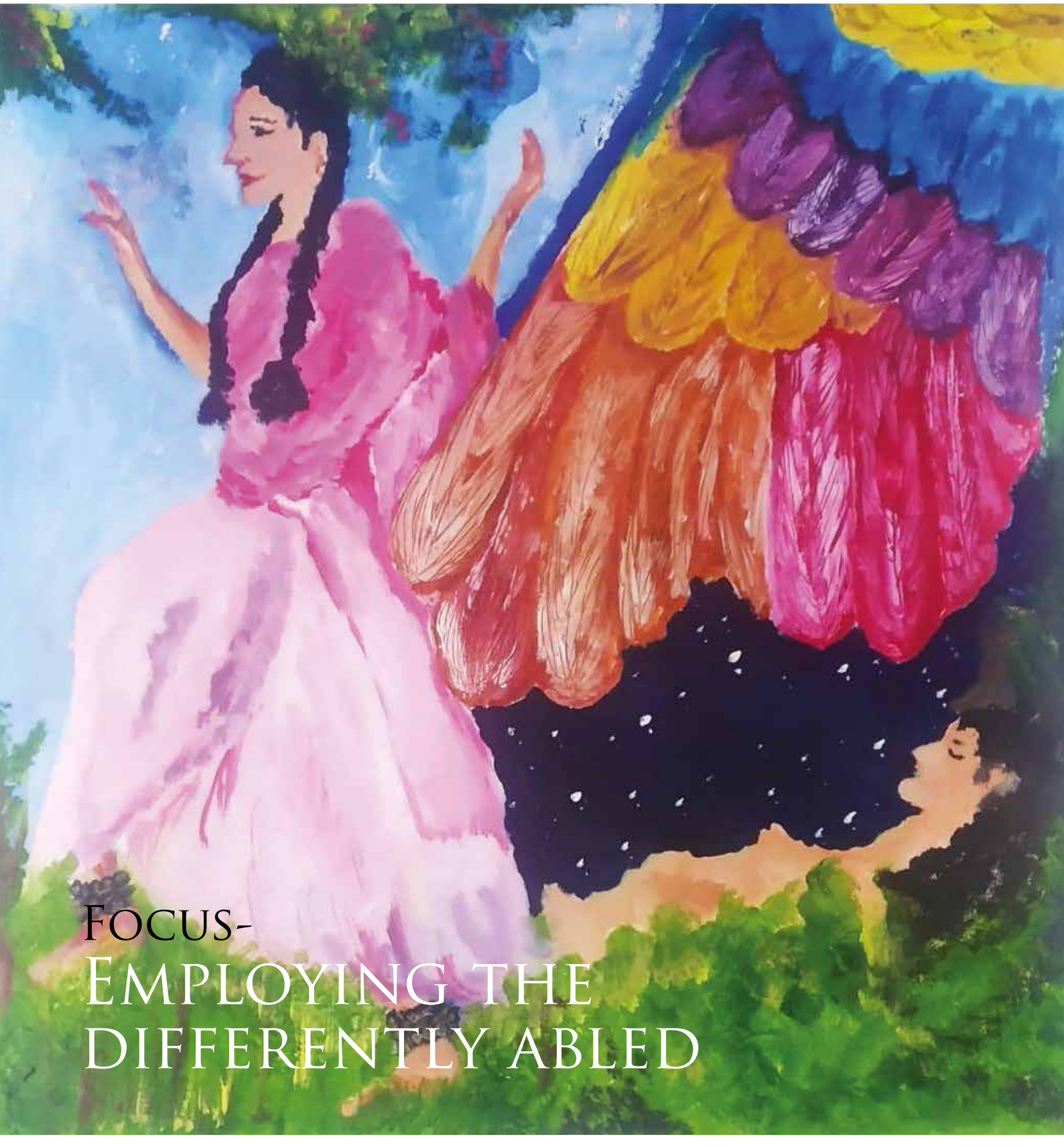

Focus-
Employing the Differently Abled

The official journal of the Kerala chapter of the IAPMR

Dr. RAVI SANKARAN
Associate Professor
Amrita Institute of Medical Sciences

FROM THE EDITOR'S DESK

Dear Readers,

Thank you for your continued support. Over the past year the journal was produced by the diligent labor of a few. Thanks to President Sir we are forming a board to oversee the journal. When my term ends we'll have hopefully groomed a successor to carry the torch onward. We still need people willing to work. If you are interested, please contact me.

Due to attrition we almost didn't get this issue out. The value of this publication is simple. It's a place to develop your writing skills and see them shared amongst your colleagues. I didn't really understand the value of this initially. George Sir being my consistent support did notice the improvement in my writing style, and pointed it out. The benefits I see are faster cohesion if ideas and structure of thoughts. Simply put this journal exists for your benefit, both entertainment and growth.

Our invited author is Dr Ramar Sabapathi Vinayagam. He has a very nice article on guiding people back to work. Dr. Bineesh is one of our saviors this time by sheer volume of contribution. Dr. Sudheera has done the cover and back art. We have a variety of article styles, all of which are interesting to read.

Our next issue's topic is Rheumatological Rehabilitation. If you haven't, perhaps you should contribute to the journal. Pleasant reading.

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CONTENT

The included articles are the responsibility of each author

Employing the Person with Disability

Author
Dr Ramar Sabapathi Vinayagam

Illustration – 1: Strategies for Employing the person with a disability

EVALUATION OF WHOLE PERSON DISABILITY

The unique feature of 'Integrated Evaluation of Disability' is an integration of impairment of function and/structure, limitation of activity & participation restriction, environmental & personal factors, including earning capacity. It may serve to compute the whole person disability, conclude his/her ability or limitation to choose employment. Integrated evaluation of disability institutes clinical methods/tools to evaluate impairment of function/structure. It applies an activity-participation-skill-assessment scale to assess the limitation of activity and participation restriction. It uses environmental and personal factors measurement scale to measure environmental barriers, the person's behaviour towards his/her disability, and earning capacity (Illustration – 2)(1).

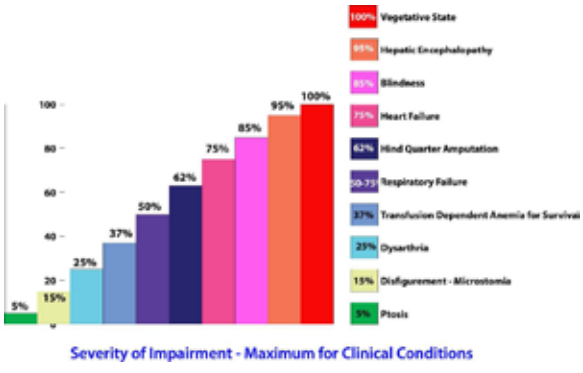

Illustration – 3: Severity score of whole person impairment

Illustration – 2: Evaluation of whole person disability

'Integrated Evaluation of Disability' advanced severity scale. 'No disability' refers to a score of '0' or 0-4%. 'Mild disability' denotes a score of '1' or 5-24%. 'Moderate disability' represents a score of '2' or 25-49%. 'Severe disability' describes a score of '3' or 50-74%. 'Profound disability' indicates a score of '4' or 75-94%. 'Complete disability' assigns a score of '5' or 95-100%.

'Integrated Evaluation of Disability' assigns whole person impairment of 100% for the vegetative state. It gives 67% for spastic cerebral palsy with Modified Ashworth scale '4', dysarthria (class '2'), constipation, and equinus deformity. It allocates 96% of 'whole person impairment' for spinal cord injury with tetraplegia at C5 level, Modified Ashworth scale '4', complete sensoryloss, incontinence of bladder on catheterization, constipation, erectile dysfunction, and equinus deformity. It assigns 60% for hip disarticulation (Illustration -3).

Though the evaluation of disability in 'Integrated Evaluation of Disability' is complex due to computation of data, ready reckoner Impairment Table' for about 300 clinical conditions with multiple clinical presentations stated may reduce mathematics burden (1).

Evaluation of Vocational Potential

During premorbid state, a person with a disability provided food, shelter, and education to his/her family members. Loss of earning potential due to disability may deprive the family members of their fundamental human rights, namely food, shelter, and education. Hence, it is necessary to evaluate a person's vocational potential with a disability for planning vocational

training and vocational placement to regain his/her earning capacity. The vocational evaluation includes assessing his/her psychological reserve (anxiety, depression, well-being, mood, activity, stress tolerance)(2), mental faculty (imagination,

intuition, will, perception, memory, reason), and personality, either resilient or overcontrolled or under controlled. Vocational evaluation also includes his premorbid status, namely, educational qualification, specialization, and specialized training, his/her premorbid employment, namely permanent or temporary, full-time, and part-time, work attendance, and relationship with his/her colleagues. It further includes aptitude and skills such as career motivation, career development, experience, and skills, including transferrable skills, and occupational interests. It also encompasses vocational adjustment, capacity and need for retraining and additional training, and vocational accomplishments and failures (Illustration – 4).

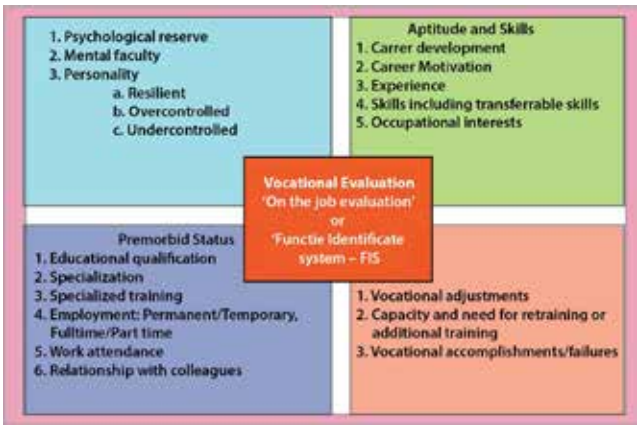

Illustration – 4: Vocational Evaluation

'On the job evaluation' or 'Functie Identificate system – FIS.' FIS, a computer system, evaluates the person's limitations and potential against a job's demands. A vocational counsellor explains to the person about his vocational potential and constraints. He/she may require and need to undergo vocational training and vocational adaptation and reintegration program. It is necessary to plan for the person's accommodation before vocational placement(3). Based on the vocational potential, he/she may return to original job, or alternative job, or may work on self-employment or sheltered employment.

Accommodation

ADA – Americans with Disability Act describes that aptitude and skill are the main criteria for employment rather than impairment. It also explains that reasonable accommodation is an essential vocational placement policy (Illustration – 5)(4).

Illustration – 5: Reasonable Accommodation

1. Modifying the policy to conduct oral examination for persons with dyslexia and providing qualified readers or interpreters for a person with visual and hearing impairment enabling the qualified or eligible employee with aptitude and skill to participate in the application process.

2. Vocation counselling explains to the person regarding his/her vocational potential and limitations.

3. Institution of vocational training, vocational adaptation and reintegration program, accommodation for the workplace before vocational placement, and provision of equipment such as hearing telephone amplifier for a person with hearing impairment

4. Alteration of a job to perform the essential functions of the job and avail the benefits namely restructuring of the job, reallocating the vacant position, part-time job or modified work schedule

to suit the low endurance of the person or attend to the treatment

5. Modification of physical environment for wheelchair accessibility such as removal of architectural barriers, namely, steps, provision of automatic door, adding adequate leg space for a wheelchair to work with computer

Working and Earning Capacity

The severity of disability determines either total inability to pursue the original employment or an alternate job option. Further, the residual physical ability, mental faculty, psychological reserve,

Illustration – 6: Working and Earning Potential

residual vocational skills and workplace accommodation may determine vocational output and earning potential in the original or alternate employment(1).

Premorbid earning capacity may serve as a reference to calculate the loss of earning.

Persons with work-related injury may seek secondary gain and may malinger for compensation. Hence, it is mandatory that vocational evaluator assesses and determines his/her vocational potential and earning capacity to resume premorbid employment or choose a suitable alternative job and earning potential with the above perspectives(Illustration – 6,7)(5).

Illustration – 7: Working & Earning Potential and Loss of Income

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Dr Ramar was the Chairman, Department of PMR, Ministry of Health, Kuwait, formerly director, Government Institute of Rehabilitation Medicine and professor of PMR, Madras Medical College.

Persons with Disabilities and their Employment:

Can I do anything to bring about a positive change as a Physiatrist?

Author

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ABSTRACT

My journey as a Physiatrist has been long and interesting. It was an informed choice made by me as I thought the specialty of Physical Medicine and Rehabilitation best suited my interests, likes and dislikes.

As a PG student at the All India Institute of Medical Sciences, New Delhi I regularly sent all persons with disabilities that came to us for rehab to the vocational counselor and social worker. Filled out many forms regarding job requirements and whether my patients were able to do those. Precious time was spent filling out forms, certifying whether the person was fit to do the job, fit to drive a vehicle or the modifications needed in vehicle, etc. Being a junior resident had to do the assessments in detail before I could even think of discussing it with a faculty member. Sometimes even wondered why I was signing so many forms as a senior resident, and why should I spend so much time on these, when I could do better things…….. However, vocational rehabilitation was not considered separately from medical rehabilitation; pre-vocational assessments and certifications were part of routine work flow.

Things were not at all different as I moved on whether at VMMC and Safdarjang Hospital, New Delhi or at the All India Institute of Physical Medicine and Rehabilitation, looking into the vocational aspects, giving appropriate guidance, certification and assistance was part of my job, as a faculty in PMR.

When I moved to Canada, for a brief period, realized that all PMR specialists, whether dealing with stroke, spinal cord injury, acquired brain injury, musculoskeletal or chronic pain, routinely dealt with vocational issues of persons they treated, did appropriate certification at every step, even suggested graduated return to work for those with cognitive impairment, based on psychometric evaluations done by psychologists and prescribed the nature of work that could be done by their patients. So it was only part of the routine work of a Physiatrist, as I learned from my PG days. I boasted proudly at every thought, whether India or Canada, the practice or PMR was just the same, only the cultures and the settings varied.

Twenty years later, trying to settle down in Kerala, my hometown, to set up a practice… be closer to family with pride, experience and passion for PMR as my strong points, I was confident when I started. The setting was different, local private hospitals and then, slowly got closer to governments settings but was never really in an institutional or academic setting or a government medical college.

The journey took a “not so encouraging turn” at this point….When I asked any person with disability, “What do you do for a living?” was very surprised to get back the answer, “How can I do anything when I cannot walk?”Slowly the realization came to me that one could not find many persons with disabilities working in government or private set ups but saw many selling lottery tickets… Was glad to see that no one was begging on the pretext of disability… The norms of reservation for disability were hardly followed… What happened to that entire literacy rate, advanced health care services, etc. etc. that we keep hearing about Kerala, especially when we are outside of Kerala. The realization that the state of affairs in the area of rehabilitation in Kerala, especially the awareness was pathetic

when compared to the advances in health care. I started exploring the options and interact more with persons with disabilities outside of my work environment.

As the interactions with voluntary and government organizations in the field of disabilities increased, I slowly learnt of the issues and root causes of problems as listed below.

1. Whether adult or child, the diagnosis is hardly understood by the person or caregiver and no to minimal guidance/counseling is given in the acute care setting

2. Even though there is excellent prenatal as well as neonatal screening for disabilities, parents are not advised regarding the importance of early intervention and reduction of disabilities – this is slowly changing now with the introduction of REICs and DEICs and dedicated programs and awareness creation among pediatricians.

3. In terms of adult onset disability, no counseling is given regarding the nature and prognosis of disability. In most acute tertiary care settings and medical colleges, although this is done regularly, especially family briefing, the time of counseling is too early and neither the person with disability nor the family is ready psychologically to accept the disability. Once discharged from acute setting, ongoing support and counseling and rehabilitation support services are not available.

4. Most rehabilitation services are taken over by the palliative care teams who give physiotherapy and offer charity equipment like wheelchair but are hardly suited to the individual. The issue is pure lack of knowledge and most likely not intentional. There is no additional support offered to them, either.

5. The common income generating activities done by persons with disabilities are,

a. Selling lottery tickets – mostly done by those with locomotor disabilities who have their own means of transportation like modified two-wheeler

b. Making paper pens

c. Making umbrellas

d. Making art and craft items, LED bulbs

e. Book binding

f. Candle making

g. Screen printing, block printing, paper bag making, etc. at controlled and supervised environments like special vocational schools.

6. Among persons with acquired disabilities, very few returned to their work and ever since the injury, where confined to their homes.

7. I came across many persons with disabilities who were driving without a valid driving license. Among the few who had, they were hardly certified by a PMR specialist; and did not know of any doctor or occupational therapist doing a proper assessment for driving – no driving schools were equipped with similar systems.

8. Although I saw many disability certificates co-signed by a Physiatrist, I did not see any certification by a Physiatrist empowering a person or even suggesting the types of jobs a person is able to do – not even to the extent that "the person has normal muscle power in upper limbs and poor muscle power in the lower limbs", which in my opinion must be confidently assessed and certified by a Physiatrist.

So, in my opinion what a Rehabilitation Professional is supposed to do is being done by people who do not have appropriate understanding, knowledge or training in doing so throughout the state of Kerala with only minor exceptions in certain localities. The rehabilitation process was largely controlled by voluntary or government palliative care services,who were not formally trained in Rehab.

Why is a physiatrist the best person to help with this?

A physiatrist is specially trained in the area of rehabilitation and can assist with goal setting by predicting recovery patterns based on thorough physical examination and other multi-disciplinary members. He/she is best suited in assessing abilities as well as disabilities and certifying to that extent.

How could practice settings be adapted to meet or at least make a positive change?

1. When persons with disabilities are assessed in the medical board for determining the percentage of disability, a further question may be asked "do you require any further certification for your job purpose, which may be included in your assessment and issued directly to you"?

2. When inpatients are discharged from rehab facilities, a clear plan is needed in terms of the goals to be achieved and return or initiation to work.

3. Recruiting vocational counselors and social workers in all government medical colleges and offering these as special services

4. Medical colleges may liaise with local self-governing bodies or with rural or urban health centers and initiate these activities similar to those

done by Community Medicine departments and establish local Community Based Rehabilitation network.

5. Include routine pre-vocational, vocational and driving assessment clinics or medical boards for all adolescents and adults with activity limitation and participation restrictions based on their individual capacities.

6. Every department of PMR in the government sector may pledge to conduct awareness programs for the public, at least one in a year.

What have I done? Did I do any of the things mentioned above?

In nearly three years of practice at Thrissur, there were many harsh realizations and asked the question to myself, who is responsible for this and who could bring about a change in scenario? The hardest part was accepting the fact that I am also responsible for this scenario and as the person who has knowledge in the field and willing to work hard for what I believe in, it was me who is responsible. Things became much easier when I stopped blaming others and took the job upon myself in creating awareness.

With the help of "old students' groups on social media", slowly started making these comments. It wasn't that tough because people did not know what my specialty was and I had to explain to every new member of the group about PMR. Got the ball rolling that way and got a few like-minded friends who would share the same thought as me and we started offering voluntary services wherever possible. The flood of 2018 was truly a blessing in disguise in this regard when it was very clear who was willing to help out and who was not. Meanwhile, also got employed at the National Institute of Physical Medicine and Rehabilitation (NIPMR) which was an added advantage. The activities of the voluntary organization, now two years old concentrated on creating awareness and not on providing charity or exploiting disability. Although not offering free aids and appliances was not popular among the beneficiaries, clarity in discussions and assistance with real time issues slowly made my team popular among persons with disabilities and their families. As the major modus operandi, we chose to work closely with the district administration and at every step, utilized any or all opportunities to talk about implementing programs or plans for persons with disabilities. Very proud to have reached the status wherein if there is any funding available for persons with disabilities, the district collector calls me or anyone from my team to identify eligible candidates who could be empowered by giving high end assistive technology devices and not just train in them in their use but also follow up about adherence and problems if any. The positive changes that has happened in the immediate neighborhood in which I have paid some role, albeit minor are below.

1. Some staff at Thrissur collectorate and other government offices were trained in sign language.

2. All important public video messages by the district collector is also recorded and publicized in sign language. Wherever possible, braille posters were made and displayed and awareness was created about all types of disabilities, not just the visible ones.

3. So far, 25 persons with disabilities were given high end assistive technology devices, not just motorized wheelchairs, but manual and motorized transfer devices to ease caregiver burden.

4. In the largest of its kind in the district, nearly 300 persons with disabilities were registered, given medical certificates for fitness to drive and the process of learner's license and driving test is ongoing.

5. Advice was sought from us regarding ensuring appropriate accessibility features and proud to have got approval for the correct ramp gradient, tactile tiles on the ground, grab bars at appropriate height and facilities on ground floor.

I am truly hopeful to see a positive change in the right direction, especially each and every Physiatrist in the state owning up their responsibilities, albeit in their limited clinical practice and empowering patients.

Together, we can.

Higher Neural Functions- A Clinical Approach:1st Edition

Author: Dr. Bineesh Balakrishnan

Higher Neural Functions: A Clinical Approach, is a reference book (I bought a paperback of the first edition) aimed at helping Neurologists, Physicians, & Post Graduate students to better understand higher mental/neural functions. I couldn't stop myself from buying this book, after I had the opportunity of listening to Dr. Madhusudanan on neurological localization, during a CME conducted in November 2019. It was obvious to me that he knew Neurology like the back of his hand. More importantly, he made the topic easy to understand. This book opens a huge door to better understand these complex phenomena (a door so huge, I was surprised when it opened up!!). To state that this book met my expectations, would be an understatement.

Being a compact book, it is easy to carry around. It is also available in the digital format on online book sites. Since it only runs to 264 pages, it can be completed in a sitting or two, if needed, but I think since a lot of information is conveyed in these pages, it is better to sift through them.

The book starts off with a dedication which goes-"This book is respectfully dedicated to the hundreds of neurologists & neuroscientists all over the world, whose painstaking work over the years has led to the compilation of knowledge that we have tried to present in small part, in this book."

The complex content is aptly divided into 10 chapters, covering everything from Attention & Language to Apraxias & Neurobehavioral disorders. The language used is simple, & ensures easy readability. Each chapter starts off with an introduction of the neural function. The definitions given in the introduction are short & to the point. Check out the definition for Memory- "Memory is the ability to register, store, & retrieve information, including past experiences & knowledge learned". The latest edition of Bradley's Neurology in Clinical Practice (7th Edition) defines Memory as-"Memory is a specific cognitive function: the storage & retrieval of information". While Bradley has devoted around 9 pages for describing memory & memory impairments (in Chapter 7 titled- 'Intellectual & memory impairments'), this book has dedicated 26 pages to describe the same. What I'm sure you've realized by now, is that this book is in a class of it's own.

The book does a wonderful job of highlighting the Neuroanatomical & Neurophysiological correlates of the higher functions. For example, in the chapter on Attention, the role of Prefrontal lobe, Limbic system, Parietal cortex, & Ascending Reticular Activating System in regulating Attention are beautifully outlined.

After discussing these basic facts, emphasis is laid on the different types of dysfunctions seen with regard to a higher neural function. In this regard, in the chapter on Language, besides Aphasias, detailed accounts of Agraphias, & Alexias are mentioned (even neural pathway abnormalities implicated in these defects are outlined). For pathological conditions where the anatomic basis has not been completely delineated, the most likely lesion or pathway involved is mentioned. For instance, it is stated that the anatomic basis of Optic ataxia is not fully defined, but the condition is usually seen with Posterior Parietal lobe lesions.

The examples given to reiterate the neurological phenomena are simple & effective. Take, for instance, how the book declares that Stereopsis is the process by which depth is computed from binocular visual information & exemplifies how the cricket giant, Sunil Gavaskar, once described how difficult it was to judge the ball, when he had a problem & one eye had to be bandaged.

Pictures & tables help to reinforce the information discussed perfectly. One table on the brain areas involved in Memory (Prefrontal area, Medial temporal structures, Parietal lobe, Posterior frontal lobe, Occipital lobe, & Lateral temporal lobe), shows the roles played by these areas in Working Memory, Episodic Memory, Semantic Memory, & Procedural Memory. This book also contains succinct flow charts designed to help us better understand essential concepts.

Detailed accounts of tests to detect abnormalities in the common higher neural functions have been enumerated, appropriately, in this book. For example, more than a dozen tests for assessing Cognitive dysfunction have been discussed in great detail, in the corresponding chapter. No detailed accounts for tests to detect the abnormalities in the uncommon dysfunctions are mentioned, though as mentioned earlier, the lesions involved are beautifully described.

If you're interested in learning arcane neurological phenomena, & their etiology, you're in for a treat. Visual anoneria (the inability to have visual dreams), Landmark agnosia (the inability to identify familiar landmarks & buildings), Akinetopsia (loss of visual motion perception due to a cerebral lesion), Paligraphia (written repetition of words), & many others have been mentioned in this publication.

If you're into syndromes, as I am, you'll run into many of them in this book. Anton's syndrome, Balint's syndrome, Riddoch syndrome, & many others are found within the leaves of this book.

The treatment for the impairments of higher neural functions have only been dealt with in brief (I don't think that's even close to being a disadvantage, especially considering how informative this book actually is!!).

All in all, this is a gem of a book, in the way it approaches these complex functions & explains them. With books like 'Human Anatomy' by B.D Chaurasia, & 'Textbook of Microbiology' by Jayaram Paniker & Ananthanarayanan, being in high demand globally, this book could very well end up amidst them. More importantly, this is only it's first edition. I would recommend this book to all my colleagues, & to pretty much anyone who is as intrigued with these complex functions, as I am. My advice will be to read it little by little, & to take detailed notes, if possible.

QUIZ 1

1. .....is the science of fitting workplace conditions & job demands to the capability of the working population.

(a) Occupational health (b) Occupational efficiency (c) Occupational efficacy (d) Ergonomics

2. .....is defined as a multi-professional approach that is provided to individuals of working age with health-related impairments, limitations, or restrictions with work functioning & whose primary aim is to optimize work participation.

(a) Vocational counselling (b) Vocational rehabilitation (c) Occupational medicine (d) Industrial medicine

3. The .....model is used for assessing Disability & Vocational rehabilitation....?

(a) ICDDF (b) DELIVER (c) MEOT (d) CARE

4. It has been shown that the physical conditioning programs for people with back & neck pain that incorporate a..... approach reduce sick leave when compared to usual care.

(a) Resistive (b) Modality based (c) Vocational therapy (d) Cognitive behavioural

5. ..... is an individualized, interdisciplinary, job-specific program to assist the injured worker to return to work.

(a) Work Hardening (b) Work Conditioning (c) Work Modification (d) Functional Capacity Evaluation

6. ..... uses real or simulated work activities & graded increase in activity to help restore function & vocational ability physically, socially, & psychologically.

(a) Work Hardening (b) Work Conditioning (c) Work Modification (d) Functional Capacity Evaluation

7. According to the Revised PWD act of 2016-'All Government institutions of higher education and other higher education institutions receiving aid from the Government shall reserve not less than .....seats for persons with benchmark disability.'

(a) 8% (b) 6% (c) 10% (d) 5%

8. The Central Advisory Board on Disability shall meet at least once.....?

(a) a year (b) in 3 months (c) in 4 months (d) in 6 months

9. Any person who contravenes the Revised PWD act of 2016 or any rule made there under shall for first contravention be punishable with fine which may extend to.....

(a) 2,000 Rs (b) 10,000 Rs (c) 4,000 Rs (d) 5,000 Rs

10. Blindness according to the Revised PWD act of 2016 is defined as all of the below except?

(i) Total absence of sight after best correction (ii) Visual acuity of less than 3/60 or less than 10/200 (Snellen) in the better eye with best possible correction (iii) Limitation of the field of vision subtending an angle less than 40 degrees (iv) Limitation of the field of vision subtending an angle less than 10 degrees

(a) i, ii (b) iv (c) iii (d) ii

Back to the stage of happiness

Author

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Corona changed the world around us and our life especially the early part of the pandemic. Thanks to the hospital vehicle which daily picks us and drops us in the hospital and bring back

I could conduct my OP as usual. Patients were of course less. Many were reviewing over phone

Gradually OP started climbing up. During the past three months my patients started coming for regular review. Many of my patients even after very effective treatment had some sort of disability. Only a few were lucky to go back to the government job after availing a disability certificate. A few were fortunate to have their employer taking them back like giving a change of work. The age criteria and education , technical knowledge in other fields helped them . We know that there is a group of patients even after good recovery cannot go back to their previous work which was giving them a good earning. Their age, the poor educational status, the particular work they were doing cannot bring them under the umbrella of disability act. They prefer to work in an atmosphere similar to their previous work, and are not willing to be satisfied with whatever benefits they get as a disabled person. These are persons who need our advice and interference for effective rehabilitation. As rehabilitation experts we have to take up this challenge. Rehabilitation process has to start early enough during our treatment. Mentally prepare our patients. To make this point clear I will discuss the case of few of my patients

A TRADITIONAL COCONUT TREE CLIMBER

I had presented my case report of a traditional coconut tree climber. He was diagnosed to be having

Avascular necrosis of talus on one side. He is a 57 year old otherwise healthy man and the only earning member of his family. His children are studying, he has an old mother and wife who is a house keeper.

He started his job at the age of 20. He used to climb about 25 to 30 trees a day. We know traditional coconut tree climbers earn an attractive amount. The day when his X-ray showed AVN talus confirmed by MRI, he was advised to stop climbing tree. Though his case was discussed with orthopedic Department and they suggested surgical intervention, he was not willing. A PTB orthosis was suggested

which also he refused. So he was advised to use a tetrapod stick for minimal weight bearing. He had to support his family. He was desperate as he had poor education and was not in a position to enter into an entirely different job. So the question was now what can be done to give him an earning and mental satsfaction?

I had to give him an answer after a thorough evaluation of his job opportunities. So we had a discussion about the various acquaintances he had in the same field and came to a decision. He got a job in a coconut oil making unit. He was in good terms with them even when he was tree climber. What he had to do was taking out copra from the shell. He could sit and do it. He works from morning nine to five in the evening. He bought a scooter for travelling, a second hand one. Meanwhile he bought two cows. His family fully supported him. This was about 2 years back. He used to come for regular review. Each time I used to tell him about the prognosis. He talked with a positive attitude and was fully satisfied with his job and earning. Clinically his condition was not worsening. He was coming for review after a very long period last month. He came to OP well dressed, happy, walking with a tetrapod stick. His X-ray showed not any new findings. Pain had decreased, and skin looked healthy. He was asked to continue whatever he is doing. Though I was happy as a human and a physiatrist, Iwas worried about his future. The familiar smell of coconuts, memories of tree climbing, financial security, family support were making him return to life. He had already been taught some exercises for improving his upper and lower limb strength. Supportive drugs too were being given. He preferred this rather than a life with surgical intervention of his foot and the choice was given to him.

A LEFT HEMIPLEGIC

A 62 year old man was a driver in a private car. When he was discharged from my ward he could walk with minimal support with a stick. Though had a son who was a manual worker, his earnings was essential to his family. So again a bouncing back to stage was needed. I contacted his employer.

At first he was not very much interested in taking him back. He of course was not able to drive and had only a upper primary qualification. After few discussions he was given the job of a day time security in one of his employers shopping complex. His job was directing the vehicles and people coming there. This he was managing well. He could move around with a tripod stick and see familiar faces around.

In the first few months of our Covid -19 pandemic when everything went into a slow motion these persons had less strain in their work. Now that many are catching up , full swing jobs are there my rehabilitated persons also are back to their jobs happy with whatever potential they have

ROTATOR CUFF TEAR

A fifty eight year old man. He came for review last month. He had come to me in the beginning period of the corona pandemic. A fisherman, his work was in a fishing boat a traditional one. They go very far in the interior sea. They throw the heavy fishing net far into the sea and have to pull it back. This is how they catch fish. The heavy net is thrown several times a day. He had started this at an age of about twenty . He came with complaints of severe pain while moving both shoulders more on right of a few years duration which was gradually increasing. As there was almost no work, he decided a medical checkup which he is not used to. He was diagnosed to be having rotator cuff injury chronic. Confirmed by MRI. He had no comorbidities. His house was nearby and so he could come for regular treatment . He was also advised home physiotherapy which he was doing well. By four months he improved. When he came for review last month he expressed his wish to go back to work. Fishing boats had started going to interior sea again.

How could he sent back for work? Throwing heavy net is not to be allowed. I enquired about the possibilities. After bringing the fish to shore it is taken by certain persons who had a few assistants to help them. One such person accompanied him to OP as per my request. I explained to him my patient's condition. He was willing to give him a job. He also started selling fish going on scooter till twelve'o'clock after which he joins the sea shore. He is advised regular home exercises and heat modality

Why did I present these three patients?

Many of our patients it are easy to rehabilitate . This is because they have sufficient educational qualification, may be already having a job where alteration in job can be given according to the level of their recovery. They may be knowing other technical jobs so that they can switch on to them. The situation of many like the three persons mentioned above our active interference may be needed. We ourselves can become occupation, social, and family therapists. Financial satisfaction, social happiness work satisfaction and thereby mental satisfaction of our patients is important. Here I have given only three examples. Many of us can narrate enumerable such cases. Restoring functional ability as well as quality of life is important. My aim is to motivate my patients and help them go back to work with whatever functional ability that have restored after my treatment .

Key to Quiz 1

1. (d)

• The goal of ergonomics is to eliminate injuries & disorders associated with the over use of muscles, bad posture, or cumulative trauma from repeated tasks.

• Occupational Medicine has evolved to encompass the clinical practise of assessing, treating & preventing health disorders arising from or in association with job performance. It combines medicine, research, & advocacy for maintaining a healthy workforce with maximal productivity, safety, & system-based support in the work environment. It is the intersection of medicine, employee health & the work place.

2. (b)

• Individuals may benefit from vocational rehabilitation regardless of their work industry or type of employment, including self-employment.

• The definition considers the role of rehabilitation practitioners who embody & practice the integrative biopsychosocial approach of the International Classification of Functioning Disability, & Health of the World Health Organisation & recognises the variety of factors that can lead to work disability, both at the individual level & societal level.

• Vocational rehabilitation consists of multiple modalities of intervention effectively delivered by multiple health care & rehabilitation professionals. There is evidence to support the value of multidisciplinary rehabilitation improving return to work, increasing functioning & reducing pain.

3. (b)

• To help guide rehabilitation practitioners, the Disability Evaluation, Livelihood & Employment Rehabilitation (DELIVER) model was developed.

• The DELIVER model was designed to provide a broad understanding of work disability & disability evaluation. The DELIVER model is the only comprehensive model that follows the ICF paradigm for vocational rehabilitation evaluation.

• It embodies the processes within vocational rehabilitation & the changes that may happen between the different phases: being out of work, return to work, & short-term & long-term disability. By doing so, DELIVER allows rehabilitation professionals to develop the appropriate vocational rehabilitation intervention depending on the current phase & intended goal. DELIVER primarily addresses the need for an integrative & biopsychosocial approach to work disability.

4. (d)

• When workers are injured, simple strategies of workplace interventions such as environmental modifications & schedule changes or modifications of duties & tasks can help. In people with musculoskeletal disorders workplace interventions reduced time to first return to work & increased incidence of return to work more than usual care.

• A recent review looking at looking at effectiveness of workplace interventions found interventions primarily in three domains: health-focused, service coordination, & work modification. There is strong evidence that multidomain interventions from two of the above three domains reduced duration away from work, & had a positive impact on cost outcomes.

5. (a)

• Work Conditioning is an intensive course of physical therapy beyond a normal course of physical therapy for the purpose of exercise training & supervision geared toward a specific job requirement, such as repetitive tasks or increasing reaching, standing, walking, or lifting capacity.

• Work Hardening is recommended when there is a musculoskeletal deficit identified with evidence of physical, functional, behavioural, &/or vocational deficits that prevent achievement of job demands.

6. (a)

• The Functional Restoration Program is an interdisciplinary treatment approach for individuals with disabling musculoskeletal conditions. The programs use a biopsychosocial model of rehabilitation, focusing on active conditioning activities, self-directed exercises, & psychosocial interventions using a team approach: a combination of medical doctors, physical therapists, occupational therapists, psychologists, & vocational therapists. The focus & emphasis is on functional improvement rather than elimination of pain.

• The Functional Capacity Evaluation is a complex, variable, & multifaceted process that is theoretically designed to objectively assess the individual's functioning capacity that can be a valuable tool for clinical decision making for a RTW (Return To Work) assessment. FCEs exist for both job-specific functional assessment & overall assessment. FCEs are recommended prior to, & upon completion of, a Work Hardening program that is directed toward a specific job or task.

7. (d)

The persons with benchmark disabilities shall be given an upper age relaxation of 5 years for admission in institutions of higher education.

8. (d)

9. (b)

10. (c)

'Low vision' means patient has any one of the following conditions, namely:-

(i) Visual acuity not exceeding 6/18 or or less than 20/60 upto 3/60 or upto 10/200 (Snellen) in the better eye with best possible corrections; or

(ii) Limitation of the field of vision subtending an angle of less than 40 degree upto 10 degree.

QUIZ 2

1. Every appropriate Government shall appoint in every Government establishment, not essthan .....% of the total number of vacancies in the cadre strength in each group of posts to be filled with persons with benchmark disabilities, according to the Revised PWD Act of 2016.

(a) 6 (b) 7 (c) 5 (d) 4

2. The appropriate Government and the local authorities shall, within the limit of their economic capacity and development, provide incentives to employer in private sector to ensure that at least ..... % of their work force is composed of persons with benchmark disability, according to the Revised PWD Act of 2016.

(a) 5 (b) 6 (c) 4 (d) 7

3. A person with benchmark disability wants to apply for high support, & needs a permanent disability certificate. He is going to be assessed by an Assessment board on..... parameters (according to the Revised PWD Act of 2016).

(a) 4 (b) 7 (c) 5 (d) 6

4. A person with dwarfism has applied to get a job, under the disabled quota. According to the Revised PWD act of 2016, dwarfism is defined as a height equal to or less than.....?

(a) 149 cms (b) 148 cms (c) 147cms (d) 150 cms

5. .....means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

(a) Universal design (b) Essential Technology (c) Adaptation (d) Ergonomics

6. There are several situations in which a person with disability working with an establishment may register a complaint with the Grievance Redressal Officer, according to the Revised PWD act of 2016. They are:-

(i) When a person with disability has been discriminated against in matters relating to employment.

(ii) When an establishment refuses to make changes, or create a barrier free environment to suit the needs of a person with disability.

(iii) When a person is denied promotion on the ground of disability.

(iv) When a person is removed from service or is reduced in rank after he/she acquires a disability while in service.

(a) i, ii (b) i, ii, iii, iv (c) i, iv, iii (d) i, ii

7. Government has the responsibility of reserving % of the total number of vacancies in each group of posts for persons with Benchmark Disabilities having blindness or low vision.

(a) 4% (b) 2% (c) 1% (d) 3%

8. The.....& it's optional protocol were adopted on December 2006, through a forceful call from persons with disabilities around the world to have their human rights respected, protected and fulfilled on an equal basis with others.

(a) ILO (b) UNCRPD (c) UNDR (d) UNRDP

9. Registered organizations according to the Revised PWD Act of 2016, include organizations registered under….

(a) Act of Parliament (b) State Legislature (c) Either of the above (d) None of the above

10. The Department of Empowerment of Persons with Disabilities was carved out of the ..... on 12.05.2012 as the Department of Disability Affairs to ensuregreater focus on policy matters to effectively address disability issues and to act as a nodal Department for greater coordination among different stakeholders, organizations, State/UTs Governments and Central Ministries and Departments.

(a) Ministry of Social Justice & Empowerment (b) Ministry of Home Affairs (c) Ministry of Commerce & Industry(d) Ministry of Health & Family Welfare

KEY

1. (d)
2. (a)
3. (d)

The Assessment Board shall assess the applicant on the basis of the six parameters (a) to (f) and assign scores on the basis of the 100 point graded weightage indicated below:-

(a) Severity of Physical Disability (maximum weightage of 25 points)

(b) Severity of mental/developmental disability (maximum weightage of 25 points)

(c) The extent to which daily activities in a person is hampered (maximum weightage of 35 points)

(d) Cognitive Abilities like ability to take safety measures to use transport, logistics, gadgets, not to get lost (maximum weightage of 5 points)

(e) Environmental Barriers like access to health care or support systems for rehabilitation or health needs (maximum weightage of 5 points)

(f) Socio-economic status (maximum weightage of 5 points)

4. (c)

Every 1" vertical height reduction shall be valued as 4% Permanent Physical Impairment in relation to the whole body.

An adult height of 4 feet (121.92 cms) is equated to a Permanent Physical Impairment of 40%.

5. (a)

"Universal design" means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal design" shall not exclude assistive devices for particular groups of personswith disabilities where this is needed.

6. (b)
7. (c)

- Government has the responsibility of reserving at least 4% of the total number of vacancies in each group of posts for persons with Benchmark Disabilities. The reservation framework as per the Act is:

1. 1% reservation for persons with blindness/low vision
2. 1% reservation for persons who are deaf or hard of hearing
3. 1% reservation for persons with Locomotor disability
4. 1% reservation for persons with autism, intellectual, learning disability, mental illness,multiple disabilities (which means a combination of any of the disabilities mentioned above).

- The reservation in promotion shall be according to instructions issued by the Government.
- Any Government department may be excused from following this system of reservation only when the Government has declared this through a notification which must mention the conditions for the exemption.
- The Government may make such a decision in consultation with the Commissioner or the State Commissioner on the basis of the nature of work carried out in an establishment.
- The Government is required to identify jobs which can be reserved for persons with Benchmark Disabilities.
- To be able to do this effectively, it is the responsibility of the Government to form an xpert committee that will have the responsibility of identification of jobs and which shall have people with Benchmark Disabilities.
- The Government also has the responsibility of reviewing the identified posts at regular intervals, the period or interval not exceeding three years.

8. (b)

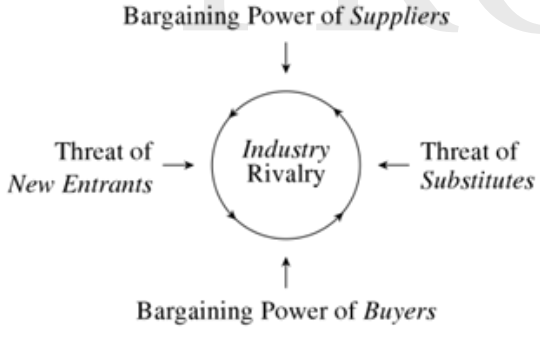
United Nations Convention on the Rights of Persons with Disabilities

9. (c)
10. (a)

Porter's five forces and the status of PMR in Kerala

Author: Dr. Ravi Sankaran

Competition is healthy. It fosters accountability and drives progress. Like it or not money is a part of healthcare, so an understanding of business and markets is important. In 1979 Micheal Porter a Harvard Business School Faculty published the 'Five competitive forces model'.(Michael E. Porter, "How Competitive Forces Shape Strategy", Harvard Business Review, May 1979 (Vol. 57, No. 2), pp. 137-145.) While it is not a perfect model it is useful. PMR being such a loose discipline our practitioners find themselves doing all sorts of work ranging from primary healthcare all the way to super-speciality niches. Though Dr. Kruzen started his work nearly a century ago our field still isn't prominent, and is often unknown to our own medical colleagues.



This article looks into the five forces model from a PMR angle and poses simple solutions.

1. Competitive Rivalry- It takes effort, intelligence, and good fortune to get an MBBS degree. Getting an MD requires more of the same. Though PMR is a field in need of physicians, strangely we have competitors. As many of our practitioners do general care though, it becomes clear why. When you consider that we also treat pain, and rheumatological conditions the number of competitors rises. New fronts open when we add Neuro-rehabilitation to the mix. As BPT holders are now super-abundant it is much easier to get access to one than a physiatrist. When they pose as Physical Medicine Specialists, things get more complicated. The average person knows little of healthcare and prefers convenience. Often they are referred directly to therapists by doctors unclear of what outcomes to expect. This is one part of why PMR is overlooked. The only solution to this multi-faceted problem is to take up something few can do, and do it so well that you are second to none. In the worst case people will imitate you. This can be remedied by becoming acknowledged as a master of your area of interest. That comes from research and publications.

2. Supplier Power- Seeing how Modern Medicine saves and prolongs life, but does little to add Quality to it, the market should be ripe for our services. Sadly the lowest level doctor has no idea of what the International Classification of Function is. What they know is 'Disease X= Treatment Y'. Their betters know when and when not to use treatment 'Y'. Another step up is to understand when to refer to a specialist. Sadly if they don't know we treat function, the referral goes elsewhere. Modern Medicine's biggest problem is focusing on the disease, while ignoring the person with the condition. Most doctors don't really think of function. Sadly patients who have been to enough doctors realize this. The seasoned clinician knows how to balance the patient's needs with treating the problem. Regardless this leaves behind those with Activity and Participation restrictions. Many of them don't fit into Palliation either. These are the rehabilitation patients. Since our own doctors don't know this distinction, the patient suffers. For the average doctor 'referral for therapy' is a way to be freed of a problem patient. Using the ICF model shows patients you are on their side and provides a framework applicable to all patients. Doing this leads to patient/ party satisfaction, is a unique service of its own right, and has little expenditure (excluding time). You will first have to learn to motivate yourself, after which you can motivate anyone. Overcome your own flaws and you can guide anyone else.

Our suppliers are the referring doctors. While they can't raise rates on us, they can insist on lower costs for the patients they refer. Our hyperbaric service is amongst the cheapest in the country, simply for this reason. The referring doctors insisted that it be cheaper than what they offered. The same don't know why patients should wait or bear extra charges, to finally see a therapist at the end. Many successful modern business models are based on a direct to customer

relationship, cutting out the middle man. As long as you refer to a therapist, you become that. To survive you have to be the end of the line.

3. Buyer Power- While patients' need for PMR is high (the actual market), there are obstacles. Patients want lower rates, but can't force that on us. They can go to places that are cheaper instead. Often this means suboptimal care. Since many leave acute care brainwashed to get 'Physio' they are unaware of this. For them one physio is the same as another, and likely there is one next door. The corporate variation of this problem is patients whose insurance program refuses to cover rehab or will pay for it in a different hospital. If you lower costs, you are cutting off your own legs. You won't be able to maintain your infrastructure overhead. The only way to come out of this hole is good quality of care. There are old rehab centres which still provide the basic level of services in a nice package. There are newer technologically advanced centres that offer the same and much more. Patients will still go to the old system, because they trust it. Trust alone makes people come and put up with the trials they must face. That takes time and dedication to build.

4. Threat of Substitution.

In homes without a father, often the eldest child takes up some roles. Few doctors actually consider function, so we have to make them aware of what we do. When PMR fails to fill this gap, enthusiastic and sincere therapists will step up. Sadly as it is out of their scope, outcomes aren't what they should be. As most doctors don't care, they blindly accept whatever is done. This is how substitution begins. If you want to see the end product, look at PhD PTs in America. The post was designed to increase academic faculty for PTs. Instead the doctorate degree is used a marketing ploy to make more money.

5. Threat of New Entry.

If we limit ourselves to diagnostics and interventions while ignoring function we are no different from those who we want to send us referrals. When we blindly refer all patients to therapy we become a 'stop sign', where business wants a highway. We become redundant. Tracking functional recovery helps patients understand what we do. Being a part of therapy is critical to understanding how things are going. Therapists encroachment into our work is not as much with hostile intent, but because they are interested. Having no PMR guide to show them their place in the team, they become the team.

'You aren't doing it wrong, if no one knows what you are doing.' Since most medicos don't know the relevant therapy, paramedicals have a free hand to do as they like. The specialty knowledge of a trained Physiatrist is negated by the ignorance of both. By not being active on the acute care side, and not having inpatients with night duty or being on-call, any Dr will really wonder what exactly we do. Being better than who we were yesterday is the only way to fix this. Becoming the specialist of new technology can also break this image. The key is to be available and accessible.

Summary

The bottom line is: Be so good that no one can ignore you.

Members in Action

With never a dull moment, our colleagues show us what they've been up to this quarter. See below

Dr Lekha
Teleconsult via Zoom

Dr Muralidharan and Dr Sreejith
Reaching out to Thanal Rehabilitation centre at Erattupetta

Dr Reeba

NMC Observer for CISP-2 { Curriculum Implementation Support Programme}

NMC - organized Undergraduate curriculum & timetable according to NMC guidelines (student doctor model]

Institution- helped to assimilate and upload Full Institutional Faculty & students portal data {KUHS }

Team member of MEU participation in Interns Orientation Programme

February- Dept Covid Nodal officer

Dr Santosh Raghavan

Prepared lesson plans on the basis of Competency document published by the NMC.

Attended the first ever virtual national conference of IAPMR and presented a paper on " Development of PMR curriculum as per NMC guidelines ". The department of PMR ,Alappuzha has started participating in the CP clinic on weekly basis. The department could participate in the disability evaluation of aspirants for admissions in professional colleges. The department has also participated in the medical evaluation of candidates got selected for all India administrative services.

Dr Vidya

- Presented a poster on - An unusual case of progressive cervical myelopathy following high voltage electrical injury on Jan 21st in national conference of IAPMR
- Work at KIMS Jaipur foot limb centre- gave a gesture controlled electric below elbow prosthesis developed by Prasanth (Inali) to a young lady from Chennai. Free prosthesis BK and AK to many amputees.

Dr Mathew KM

- Vision 2030 planning - detailed discussions with management about future plans till 2030.
- Planning meetings to kick off DNB training program.

Dr Vipin Vijay

- Restarted PMR Department in District Hospital Idukki.
- Coordinatingwith District Early Intervention Center(DEIC), in evaluation and Treatment of Development Delay. DEIC has PT, Speech Therapist, Special Educator, Psychologist.
- Restarted Disability Evaluation Board in Our Hospital. Continuing activities

on Social Media platforms, to create Public awareness about Physical Medicine and Rehabilitation, Disability Rights and Pain Medicine.

Dr Sooraj Rajagopal

Nodal officer from Medical College for Iqraa Covid Hospital, a 95 bedded COVID hospital , first PPP model in state.

As faculty member of Regional Centre for Medical Education Technology, conducted a workshop for House Surgeons on Communication techniques and Doctor Patient relationship.

I was also an observer for online CISP course for PK Das Institute for Medical Sciences and Research.

Dr Ammu Shanmugan

Assistant Insurance medical officer in ESI hospital Olarikkara Thrissur.

MSK and pain rehab mainly.

Infiltration shoulder,elbow, cts ,mainly prolotherapy on a regular basis.

Dr Roshin Mary Varkey

faculty in a workshop for the physiotherapists on myofascial trigger point management including myofascial release for patients with chronic pain such as fibromyalgia, myofascial pain syndrome etc

Dr Shiela Mary Varghese

Made a video of antenatal care rehabilitation

Dr Rajesh B Nair

Rehabilitating musculoskeletal skeletal conditions mainly with: prolotherapy, IA steroids, HA and PRP in degenerative conditions of the tendons, ligaments and cartilage

Dr. Mittu Shankar

RECREATIONAL ACTIVITIES FOR PATIENTS

We conduct recreational sessions for our patients once in a week. It really helps them to build confidence, find out their hidden skills and socialize effectively. It also helps to reduce depression, stress and anxiety.

A stroke patient kicking the exercise ball.

Our patient with brachial plexus injury with his beautiful painting.

Origami by our patient with brachial plexus injury.

Our patient who is a transfemoral amputee gifted all our staff handkerchief made by her

A paraplegic with a sacral sore who is in a prone trolley, a stroke patient, a person with Parkinson's disease, another one with brachial plexus injury all taking part in ball passing game.

Two paraplegics playing speed ball. The lady in electric wheelchair is our receptionist.

Anthaakshari

Patient with Parkinsons disease trying to sing "maanikyaveenayumaayi……"

Dr Nittu Devassy Panjikaran

COVID Hemophilia Comprehensive camp with inhibitor screening

Amrita Institute of Medical sciences in collaboration with Hemophilia federation of India conducted a Hemophilia camp over 6 weeks on every Tuesday. The multidisciplinary team included Hematology, Physical medicine and rehabilitation, clinical pathology and nursing. The camp was conducted to reduce the annual bleed rate of the patients under the Cochin

chapter and screen their deformities and dental complications.

The musculoskeletal screening was done as the majority has hemarthrosis and poor quality of life. The role of a physiatrist was to correct the deformities due to the hemarthrosis and to strengthen the muscles which are deconditioned with exercises. Patients who have severe pain due to hemarthropathy may need knee replacement surgeries and pre and post rehabilitation under factor cover to avoid bleeds. Many patients come with psoas bleeds and is routinely followed up till they achieve active hip extension. Serial casting and casting under anesthesia is attempted only if the deformities don't get corrected with splints and an exercise program as there is a risk of compartment syndrome. We are planning to start Yttrium synoviorthesis for chronic synovitis shortly at Amrita. Once it is functional, our hospital will be only the 2nd center to provide this treatment modality after CMC Vellore.

The need for a multidisciplinary team is necessary as the patients come with complications ranging from intracerebral bleeds, GI bleeds, fractures and joint space bleeds as well. Some of these patients develop inhibitors (autoantibodies against the deficient factor) and that makes correcting these deformities and surgeries riskier. There are laboratory services available for detecting the factor assay from newborns to adults. In addition, Genetic counselling facilities and screening the family members are also provided. A hemophilia nurse has been assigned a 24 hour on call phone for the patients to call in case of any emergency. The nurse will contact the hematology team and advice the amount of factor required and the nearest center where the drug might be available. We also provide factor to patients who need on demand and prophylaxis as there was a major shortage during the pandemic.

All the patients enrolled for the camp were added to the international registry and were screened for inhibitors. The demographics were collected along with the number of hospital visits. The outcome scales done were The Hemophilia Joint health score (HJHS), Functional Independence Score in Hemophilia(FISH), the Gilberts score, Visual analogue score and radiological score (Petterson score was done on the joint x-rays to assess hemarthropathy). The joint ultrasound of the target joints was done to look for signs of chronic synovitis. The patients with a target joint bleed rate of more than 3 in the last 6 months were given the option of Yttrium synoviorthesis. Low temperature thermoplastic splints were fabricated and the patient family was taught how to remold it at home to correct the deformity. The patients were put on an exercise program and advised to review. Hematology consultation was taken to initiate prophylaxis factor replacement if they had very frequent bleeds and to manage other complications. Dental screening was done to evaluate if any patient had to extract their tooth or need root canal treatment under factor coverage.

The goal of creating an inspirational model is to assist and implement similar services in the state or country. Once this is achieved in the long run, we can adopt policies to request government funding to fulfill basic requirements. Self-assessment, auditing , certification and accreditation can be derived from this model. Currently a certified course on comprehensive hemophilia training program is being conducted yearly in CMC Vellore which I had attended last year March 2020. But with the Covid many of these programs have been made virtual which is also an advantage.

Dr Ravi Sankaran CME on TBI at IMA Guruvayur'





Dr Sreejith K, Professor and head Department of PMR MCH Kottayam, was invited as faculty for the National conference on Musculoskeletal ultrasound in Manipur
Dr Sasikumar, Dr Sreejith, Dr George sir , Nandakumar sir and Dr Muralidharan gave presentations in IAPMRCON2021.

Dr.s Sreejith, Selvan and Dr Muralidharan, Nandakumar sir Santosh Raghavan and George Joseph sir chaired different sessions.

Shaping a new department

Author: Dr. Bineesh Balakrishnan

"It does not matter how slowly you go as long as you do not stop." – Confucius

It was AC month 9 (as in After Corona December 2020!!). Ok, I won't fool around. On 15th December 2020, I was called to join Sree Narayana Institute of Medical Sciences, as Assistant Professor in the Department of Physical Medicine & Rehabilitation. I reported to the HR Department, & finished the joining formalities. After being warmly welcomed to this institution, I was supposed to meet the Principal, the Medical Superintendent (M.S), the Manager of Hospital Administration (M.H.A), & the Public Relations Officer (P.R.O). I knew Dr.Pushpalatha, the Principal, from my M.B.B.S days, as she had taught me Biochemistry back then. She told me that the College needed a P.M.R department, & I should do the needful, at my own pace. She also mentioned that there were many students of hers in this institution.

The Medical Superintendent, Dr. Indira, said that the Physiotherapy unit needed modifications, & I promised to suggest modifications only after a 3 month period, after assessing the kind of patients I get in the OPD (a promise that I was forced to break!!). She also asked me to consider starting a Pulmonary reahabilitation program, whenever possible. The M.H.A, & the P.R.O assured to help me in promoting my speciality. Besides joining formalities & meeting all these wonderful people, very little was done on that day.

On the next day, I was given an OPD next to the Orthopaedics OPD complex. I met the Orthopaedics H.O.D, Dr.Mathew, before occupying my OP room .He spoke at length about his own experiences in the institution, & also his experiences while interacting with P.M.R departments while working in the U.K. That 20 minute conversation was an eye opener, because he mentioned that in the U.K, he saw structured Cardiac rehabilitation units, Aquatherapy units, & much much more...After listening to that enlightening talk, I settled down in my allotted OPD room. I decided to start with going through the U.G Syllabus, to figure out how P.M.R fits into the whole equation. Santhosh K. Raghavan sir provided me with the latest documents issued by the NMC, all in pdf format. He even helped me out by telling me which pages of the different documents were most important.

I breezed through the documents, planning to go through them in detail, whenever time permitted. On the third day at the Medical college, I was referred my very first patient by the Obstetrics & Gynaecology department, a pregnant woman with Symphysiopubic Dysfunction & Mechanical low back pain. As the days rolled into weeks I slowly got referrals from Orthopaedics & Medicine departments. Referrals from Neurology OPD also became a lot more common.

Towards the end of December 2020, Jerry sir from Forensic Medicine, who became a close friend eventually, contacted me regarding the basic requirements for the proposed P.M.R department. Again I sought help from senior Physiatrists. Unfortunately no definite guidelines were available regarding the size of the P.M.R department in the N.M.C site, but the staff pattern needed was stated. While I was toiling hard to get a rough idea of the space requirements of a P.M.R unit, Arun John sir provided me with an outline of a full fledged P.M.R department. My close friend Dr. Sonu Mohan tendered me with power points which helped me with the task as well. After working on the available information, I wrote up a rough proposal for a full fledged department, & asked for suggestions from senior Physiatrists, all of whom helped out in streamlining my efforts. The proposed department needed around 2300 sq. metres, & was supposed to be replete with a P&O workshop & Operation theatre. The members of the Executive Committee said that they will try to slowly expand the existing facilities, as time & resources allowed.

As ward referrals slowly increased the rapport with Orthopaedics, & Medicine departments increased. A weekly meeting with the Physiotherapists was arranged on Mondays with effect from 4th January 2021. We have a very good rapport with our Physiotherapists, & have discussed many topics during this weekly meet up.

A small introduction about P.M.R was given on 5th February to the Medicine department, on an online platform. Everything from Rheumatological rehabilitation to Stroke rehabilitation to Pressure ulcer rehabilitation was mentioned in this talk.

As the Physiotherapy unit was a little small, it was suggested to expand the unit, & to procure prostheses & orthoses. Indents for the needed items were prepared & forwarded by 6th of February. Following them up became a chore because of minor issues which kept cropping up. The expansion of the Physiotherapy unit is still

going on. I am deeply indebted to Jerry sir, Sedhu sir & the Maintenance department for being of immense help in edging towards this goal.

(The Physiotherapy unit expansion as on 24/2/2021)

The HR department asked if I could help out with the recruitment of SRs, & senior faculty. Though enough candidates applied for the vacancies of SRs, as far as recruiting senior faculty was concerned we had almost hit a dead end. Two interviews for recruiting SRs were conducted, one on 9th February, the other on 17th February. By this time Mohanraj sir, Santhosh Raghavan sir, & Santhosh Babu sir suggested that I ask Vasudevan sir about his willingness to join as our H.O.D. Though Vasudevan sir said he needed more time to decide, to my relief he called back sooner than expected, expressing his willingness to join the department.

On 24th February, Dr.Soumya T., joined as SR in the department. She actively helped out in managing patients & with other work including documentation of cases. She is an active & enthusiastic member of the team, going to great lengths to help out in whatever way possible.

On 25th February an interview for the post of Occupational therapist was conducted in collaboration with the HR department. Though the candidate was a really good one, she said that The HR department asked if I could help out with the recruitment of SRs, & senior faculty. Though enough candidates applied for the vacancies of SRs, as far as recruiting senior faculty was concerned we had almost hit a dead end. Two interviews for recruiting SRs were conducted, one on 9th February, the other on 17th February. By this time Mohanraj sir, Santhosh Raghavan sir, & Santhosh Babu sir suggested that I ask Vasudevan sir about his willingness to join as our H.O.D. Though Vasudevan sir said he needed more time to decide, to my relief he called back sooner than expected, expressing his willingness to join the department.

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On 25th February an interview for the post of Occupational therapist was conducted in collaboration with the HR department. Though the candidate was a really good one, she said that she could only fill in on Tuesdays & Thursdays, as she was busily engaged in another rehabilitation centre located 2 hours away. We are still trying to recruit a full time Occupational therapist.

(Physiotherapy unit expansion as on 26/2/2021)

On the 1st of March, Vasudevan sir joined as Professor in the department. He gave me a lot of ideas to expand the department, including suggestions for special clinics. As always, his suggestions are priceless since he speaks from decades of experience in the field. He has given me the nod to carry out a survey to assess the needs of this Medical College, as far as our speciality is concerned. He has proposed to promote the department more widely by availing the help of the P.R.O & Marketing section. Vasudevan sir also suggested a candidate for the post of Prosthetics & Orthotics technician.

(Physiotherapy unit expansion as on 11/3/2021)

On 8th of March an academic session was conducted, presided over by Vasudevan sir. Our SR, Dr.Soumya T., presented a talk on Rotator cuff diseases. After her succinct presentation, a detailed discussion followed. Now here's the thing about discussions, an open discussion between two or more people (especially if one of them has decades of experience in the field), for 20 minutes, is more fruitful than trying to learn from books for hours.

That very day, Vasudevan sir & I, conducted three interviews (two for recruiting an Occupational therapist & one for recruiting a P&O technician). It was fun to conduct those interviews. One candidate enlightened us about how B.M.I has to deal with the water content in the body!! During coffee breaks & lunch, sir enlightens us on everything from pain management principles to classic Hollywood movies worth watching. I'm sure under his aegis this department will go really far, & it's an honour to be a part it.....

For all the young Physiatrists who are hesitating to join the private sector, I would say that as of now, it is the private sector that needs young enthusiastic Physiatrists badly. We should be bold enough to work in the private hospitals to prove our mettle, & promote this speciality of ours....

"You are not here merely to make a living, you are here in order to enable the world to live more amply, with greater vision, with a finer spirit of hope and achievement. You are here to enrich the world, and you impoverish yourself if you forget the errand." – Woodrow Wilson

Regarding the senior faculty, colleagues & staff of Sree Narayana Medical Institute of Medical Sciences, I was surprised by their willingness to help me out at every stage of expanding this department. Everyone from the Principal, Medical Superintendent, to Jerry sir & Sedhu sir, to the nursing staff have been pivotal in helping me out, by going to great lengths so far....

I am also eternally indebted to all the faculty of Government Medical College, Kozhikode, for all their countless favours (during my PG days, SR days & ever since), Santhosh Babu sir for his avuncular guidance, Santhosh Raghavan sir for his succinct advice, & Vasudevan sir for helping me out when I needed it badly....

Employing the differently-abled, India vs the US

Author: Dr. Ravi Sankaran

Ms. G. was the nurse and office administrator at one of the clinics I trained in during my tenure at Michigan State University. She was also paraplegic and had been wheelchair bound for three decades when I met her. Despite all the challenges she faced, she could enter, exit and drive her own vehicle to work, had her own house, and a host of pet animals. During my residency she and I designed a training program for my co-residents to promote awareness of what a person like this could do with their leisure time. One Sunday she drove me 115km from Lansing to Grand Rapids in her van. Yes, I was the passenger. We picked up my colleague Dr MH who was doing his spinal cord rotation at Mary Free Bed hospital then. From there we had lunch, visited the Gerald Ford museum, and she drove us back. On a different outing with my immediate senior resident Dr JB we went to the Potter Park Zoo, along with his family. What made these trips memorable was my colleagues also went to the venue in wheelchairs. Ms. G taught them how to make best use of their 'new legs'. Training in PMR at MSU exposed me to a way of thinking I had never ventured into. We got to visit Peckham Inc., a Chinese run nonprofit vocational rehabilitation organization that employed the differently-abled. We got exposed to Occupational Medicine and workman's compensation. It is now, as I write this, that I see the brilliance of Dr Micheal Andary in designing such a well rounded program for budding Physiatrists.

This brings me to India. Having trained in Manipal, doing house-surgeon rotations in Kottayam Medical College and working in Amrita Institute of Medical Sciences, I'm aware of the demand supply gap. As most clinicians are so busy with their practice, there is little emphasis on the impact it has on life aside from clinical outcomes and prescriptions. I'm also guilty of this. The trend is shifting to more conscientious practice, but where are we as Physiatrists in this whole movement. Aside from a handful of talented individuals, we have little presence or voice. This means a motivated patient can find a way to work, but the majority slip through the cracks. Many end up in endless therapy while entertaining a pipe dream of being normal again. They become prey to quacks and miracle recovery anecdotes. While the outcomes may be true, often the practitioner providing such will not have a clear grasp on how it happened, or a transparent reproducible methodology allowing others to also serve these populations. None of this is new information to us though. All of this made me wonder what I could do to at least add a new facet to my practice. Google led me to the guidelines for employing the differently-abled, as specified by the state of California. I've amalgamated this with some past scenarios and our present situation to pose areas we can all work on.

A. Elimination of Discrimination

One of the first steps is to promote awareness of the capabilities such people have. When society is focused on appearances over worth, discrimination follows. Promoting awareness of capability can overwhelm this. Modern media outlets have done a wonderful job of showcasing talent. One of patients was a KSRTC conductor. An accident left him paraplegic. After regaining walking with KAFOs he started a tuition centre. Him and his wife manage it together and they recently started a few additional services. Another patient was a caterer pre-SCI. He's back to making biriyani en-mass and his friends deliver as a way to keep him productive. We can see where the person is self-employed/ their own boss, things have a better chance of working out. This is true if they are motivated. Many patients' families will support them, rather than get them to be productive. If more PMR residency programs included exposure to long-term outcomes the outgoing students would at least have an idea of what is possible.

B. Reasonable Accommodations and Services

Of my young adult patients with pan brachial plexus injuries their first priority is to get the arm to work again. After spending a few lakhs on surgery, getting unsupervised therapy, and going into depression after a poor recovery, some return after a year wondering what they can do now that they are financially broke with a limited use upper limb. What they forget is they have two legs a good arm and an otherwise healthy brain. One of my patients works on a government farm as a horse-master, despite a flail limb. Another (a more challenging case) was an angry young man who couldn't wait for his arm to spontaneously become normal after a complicated pan plexus repair. His expectations pushed him so deep into depression he began losing the gains he had made. He eventually got a job as a librarian. Both these jobs being government associated come with the mentioned stipulation of accommodations and to some degree services.

C. Integrated Competitive Employment

We gain a sense of self-worth from a job well done. Some feel more so, when they stand higher than their peers. Regardless everyone needs

a sense of purpose, even if it just to be happy. Motivation drives us to achieve. One of my stroke patients is my age and runs his own IT company, the one he started pre-stroke. Despite a non-dominant spastic hemiplegia he does his ADLs, gets on a bus goes to work and is otherwise a perfectly normal man with wife and child. Another of my patients with hemiplegia is a journalist. Those lacking an education are not out of options though. A different patient of mine comes from a family where this boy and his (now expired older brother) have hereditary spastic paraplegia. We inserted an intrathecal balcofen pump for him. To be productive he makes dolls with his mom. One of my stroke patients was an interior designer pre-stroke. He came to me a year after the event severely spastic and depressed. With rehabilitation aimed at this, he is now back to the same job. The situation is slightly different for those employed by others. Another patient is a graphics designer. He also made all the advertisements for Vodaphone and Toyota in the African country he works in. His ICA stem stroke destroyed four lobes on his right side. With rehab we got him fully conscious, out of delusion, hallucination, hemineglect, and walking again. He met the stretch goals of designing a few COVID themed posters for us. We got him to take up tenders from his company while still here in India. Sadly the company will not allow him to rejoin, until he becomes normal. There is a particular logic to their side of the story. If he gets hurt, it's a liability. If his work isn't as good as before, they've re-hired someone who can't pull their own weight.

D. Access to Public Benefits at Work

NGO and Government support schemes often enable patients to end up frivolously wasting resources on things that aren't a priority. As we have an understanding of prognosis Physiatrists can best help families prioritize fund allocation. If Home health benefits existed, people could work and leave their homes for other purposes. On the other hand mental health employment programs must be strengthened and expanded.

E. Data Collection

One of my first patients here showed me the power of effort. She was a data manager for a big firm in Bangalore and had just returned home to Kerala. Jumping off the train she landed wrong on the platform, fell, and ended up with a complete C5 cord injury. Over the coming months she was not making much progress and slowly slipped into depression. As she was directly under one of the senior faculty I didn't interfere. I especially stayed away once I found out the family was asking everyone for prognosis. I realized how little of PMR I knew then, so rather than get caught I just hid in my room or became 'terribly engaged' with other patients. At some point Sir was on leave for a while, and that is when her brother caught me, and dragged me to her side. She asked me questions about how she was going to be in a few years, and I declared ignorance. The problem is I felt unsatisfied with doing that, and I could see her disappointment. I examined her hands and found she actually had finger flexor action. At that time, I didn't know ASIA A injuries can progress to B, so it was quite the shock. In my ignorance I asked her to bring her laptop to therapy the next day so we could work on typing. She began sending emails that week. Before she left us, she handwrote me a thank you letter. She is currently a data manager at a palliative centre in Trivandrum. To my naïve mind this was a miracle. What happened in reality was everyone was focusing on what she could not do, rather than where she was making gains. This isn't criticism of others. All this time the patient and family were obsessed with her walking again. So that is what everyone looked at. Regardless with all the sedentary jobs around, there will be options for such people. If a group of differently-abled people could be employed in a government sector branch to look after people in a similar state, they could lobby for their needs with greater voice. Until then regulatory bodies will have to do this. There is a wide gap between the two. Data collection systems must be developed to: document the employment of people with disabilities; identify areas of significant need; inform policy changes; guide systemic reform; evaluate the outcomes of interventions and reform initiatives.

Why do all this? There is no power or glory in such acts. You can't become famous this way. This is the heart of Physiatry, restoring capacity. One of my young patients was the top of his BTech class in first year, but got into an accident resulting in a TBI. He underwent unneeded surgery of the hemiplegic nondominant upper extremity due to obsession with inability to extend his fingers. After gaining this a therapist promptly ripped the tenodesis apart, and he came to us looking for a repair. On top of this his appearance gives him such bad social anxiety, he would not go back to class and then gained erectile dysfunction from all the stress. Some clinician gave him Viagra so he can masturbate, but he has a new fixation. He doesn't want to need the drug to perform sex acts. Given gainful employment his intelligence could be given a better direction.

One patient from my Internal Medicine days was the first quadriplegic I met. He swore on God he had severe neuropathic pain that could only be cured with narcotics. What we later found out was that his uncle was actually using the medicines, and he was the channel to get the prescription. Simply put this is another opportunity for PMR to grow. We need pick it up. When we don't others will, and our field will slowly dissipate.

From(https://www.disabilityrightsca.org/legislation/principles-employment-of-people-with-disabilities)

What it takes- The road to getting a journal indexed

Author: Dr. Ravi Sankaran

As mentioned earlier, our current goal is to get this journal indexed. Our contribution rate last time was excellent, and now there is scope to improve. Below is a table detailing what else has to be done. Though we currently meet more Pubmed requirements, getting into Scopus is easier.

Requirement	Scopus	Pubmed/ SCIE	KJPMR
ISSN number	X		
2 year minimum	X		
Peer reviewed content	X		
Readable for international audience (English)	X	X	X
Publication ethics	X	X	
Publication malpractice policy	X		
Journal policy	X		
Quality of content	X		
Journal standing	X	X	
Regularity	X		X
Online availability	X		
Published regularly for at least for 3 issues. Online-only journals for at least 9 months with at least one article a month, and at least 20 articles per year		X	X
The time from submission to publication is less than 1 year		X	X
References are formatted		X	X
10% of research work is funded		X	
<40% of articles by editorial board		X	
Unique		X	
Editorial board and consultants are from 15 different countries.		X	
Authors' countries at 10+ from the most recent year's issues.		X	
The journal's manually counted two-year impact factor is greater than 20% of the JCR ranking of the same category.		X	
The manually counted total citation number is greater than the number of citable articles in a year.		X	
The aims and scope, editorial board, archives, instructions to authors, and contact info are available on the journal's website.		X	
A DOI is provided for each article		X	
Is open access		X	

What does all this have to do with you dear reader?

If you haven't submitted please start. Many of us find writing awkward, noxious or frustrating. The easiest areas where you can start are; 'Things patients taught me', or an entry for 'Members in action'. Having acquired a taste for writing you could step up to writing a 'Cold call'. From there be an 'Invited Author'. Only the latter is close enough to be worth considering for an indexed journal. Perfect practice makes perfect.

The Wilma Rudolph Story & Lessons Learnt.....

Author: Dr. Bineesh Balakrishnan

Wilma Rudolph was the 20th child of Eddie & Blanche Rudolph, born on 23rd June 1940, two months ahead of schedule. She wasn't expected to live long, but she braved the tribulations of the first few weeks of her life, just as she braved many more adversities later on. The Rudolphs had in all 22 children, & were settled in rural Clarksville, Tenessee. They were exceptional parents working more than one job to barely make ends meet, & also faced discrimination for being black. Wilma needed a little too much attention, & had no prospect of finding any help outside the family. The family gave Wilma all the love & encouragement needed to make her believe that she could one day become a healthy girl1.

When Wilma's mother Blanche came home she made it a point to nurse Wilma from the new illness which had stricken her down (after cooking for the family, & stitching clothes from gunny bags). By the age of four, young Wilma suffered from measles, chicken pox, mumps & whooping cough. She was also constantly plagued with colds & flu. Since Clarksville's only hospital was reserved for white people, & the locality had only one black doctor, Blanche had to nurse Wilma with the home remedies she knew1.

Just before turning five, the young girl was infected with Scarlet fever & pneumonia (affecting both her lungs). Wilma was not expected to survive this malady. Her family sent out prayers, & plied her with all the known home remedies, to help comfort her. But the illness persisted, & what's worse? Wilma showed an alarming new symptom. Her left leg began to twist to one side, & the she couldn't voluntarily move her leg at all. The doctor who examined the girl, told the distressed parents that their daughter had polio, & that if she did survive, she would never walk.

Despite all her illnesses, Wilma was a happy child, bright & sweet-natured. She survived this tormented childhood with all these qualities intact. She knew that she might never be able to play with her siblings, might not even attend school, & have to depend on her overburdened parents for an education. The therapy & medical care that she needed, if she was to attain some level of independence, to move around a little with crutches & a brace, would have to be provided by her family & one overworked doctor who treated black patients free of charge, & by a black medical college 50 miles away.

From the moment of her diagnosis, Wilma fell into abysmal despair. She was forced to stay in bed, at school going age, & had recurrent bouts of flu & frequent colds, & spent all day crying alone in bed. In her biography she mentions that the worst times were mornings, when she would watch her siblings walk to school, & she was engulfed in loneliness & pain. "I was so lonely," she remembered ", & I felt rejected. I would close my eyes, & just drift off into a sinking feeling, going down, down, down."1

Her family saved her, with their constant encouragement & care. Little Wilma came out of despair & summoned such extraordinary courage, strength, & an almost superhuman power of concentration, that she eventually became the family's miracle child. Blanche kept reassuring Wilma's belief's in her abilities, & told her that she would walk one day, & history is testament to many mothers whose extraordinary love have helped their children overcome insurmountable difficulties. Every Saturday Wilma & her mother made the trip to Meharry Medical College, for heat therapy & massages, a 2 hour round trip, riding on the back of a bus (being blacks). Wilma dreamt of walking, & to realize this dream, she would bite her lips & bear the pain as the staff manipulated her paralyzed left leg. Blanche learnt how to mobilize the leg & also taught it to her other children. Four times a day, either the mother or her older siblings would mobilize the leg, & then her mother would wrap it with a blanket & a hot water bottle. Wilma took responsibility for her rehabilitation, by doing exercises for the leg, tolerating the pain, so that she could walk one day. She gradually started improving.

At first she could just hop on one leg, & by the age of seven she could walk with a leg brace & crutches, & attended school for the first time. Wilma was ridiculed by her schoolmates because of her disability. Its a sad fact of life that some of life's biggest blows are dealt out within the walls of a school. She did feel hurt, but her determination never flagged. This young girl tried everyday for the next two years to learn to walk without crutches & brace. At first she tried to stand for a moment or two, then she took a few faltering steps unassisted1.

On one Sunday morning, just before her tenth birthday, Wilma accompanied her family to church. When one of them held open the church door for her, she asked them all to enter first. After that, she threw off her crutches & brace, & walked (or rather limped) all the way up to the pew where her family was seated. She had demonstrated to one & all that she had beaten polio. From then on, she used the brace as little as possible, & wore Orthopaedic shoes to walk. By the time Wilma was 12, she & her mother returned the brace to Meharry Medical College, so that other needy

children could use it. Not long after that when her mother looked out the window, she saw Wilma running around & shooting baskets (into a peach basket used as a hoop) with her siblings, without wearing her shoes. She was finally healthy & could play around normally like the other kids. Wilma gradually grew into a young girl with tremendous reserves of resolve & concentration, with the hope of pursuing goals which were unachievable according to most people. She was not just normal, she was special & she knew it1. She wanted to play basketball, & to play it better than all the children she had watched playing, when she was still in her brace. Her rigorous practice paid off & she did eventually play it with greater speed, agility, skill, & determination than any girl in Clarksville had ever played. By pestering her coach, Clinton Gray, she joined the girls' team at the all-black Burt High School. For the first two seasons she sat on the bench. Her coach then made her play in the final minutes of the game when the team was well ahead. He might have thought that a girl who had been a cripple for most of her life, would not have the speed & endurance to play the game like the other players. But then he noticed how much harder Wilma worked than the other kids. She worked tirelessly on her conditioning & on the endless repetition of the drills, & kept going while all the other kids were exhausted.

In her third season, after she begged Coach Gray to let her play, he let her start a game against a talented opposing team. To everyone's surprise Wilma Rudolph had evolved into a speeding, pivoting, dribbling, shooting whirlwind, & her team mates were forced to step up their game just to keep up with her. They trounced their opponents that night, & would trounce one after another team in the weeks ahead. From that game on, Wilma was the star player on the best basketball girls' team in Tennessee. She qualified for the all-state team twice. She once scored 49 points in just one game (it's equivalent in cricket would be a double century!!). In her second year of high school, she took the Burt High School to the state finals, after scoring 26 points against their strongest opponents in the semi finals. Their opponents in the final were not as tough as the team they had just trounced, & so Wilma & her team mates took things a little easy. The result was that they lost the chance to win the state championship. This defeat caused a great deal of chagrin to young Wilma, but she learned a lot of lessons from this defeat. The most important being that to keep excelling in any sport or task you need constant effort & focus. Though her team lost in the finals, the referee had noted something special in Wilma. Ed Temple coached the women's track & field team at Tennessee State University. The Tigerbells, as they were called, had a growing reputation, becoming one of the most dominant track & field teams in the USA. He invited Wilma to his summer camps, & she eagerly accepted. Before the summer ended, she proved herself to be a very swift sprinter. When Temple asked why she runs so fast, her reply was:"I don't know why I run so fast, I just run." She stated that running fast made her feel like a butterfly in the wind. Like Forrest Gump, in the famous movie, Wilma kept running & running, not all at once, but in short bursts, getting quicker & quicker!! In Autumn when the classes resumed, Wilma left high school every afternoon to practice with the Tigerbells1.

When she was only 16, she made the American women's track & field team in the 1956 Olympic Games, which were held in Melbourne, Australia. She weighed only 89 pounds, & though she was tall, she looked skinny, too skinny. She failed to survive for any of the qualifying heats for the 100 & 200 metre races. But she could qualify for the 400 metre relay. She didn't run the anchor leg (the final position in a relay), but she & her team mates performed well enough to bag a bronze medal. Wilma was happy with her achievement, but she wanted to be the fastest woman in the world. She was willing to use her determination, hardwork & focus to realize this dream of hers1. Four years later, at the age of 20, Wilma Rudolph left with her college mates for the Olympic Games at Rome. She weighed a healthy 138 pounds, & was raring to go. Lucinda Williams, who was her team mate was supposedly the fastest runner from the USA. In the 100 & 200 metre races, the West German, Jutta Heine had never lost a single race, & was considered the fastest woman in the world. In the track events things didn't start out good for the USA. The only American who was making the news was 19 year old Cassius Clay, knocking out opponent after opponent, to claim the gold medal in boxing1.

Another bit of misfortune struck the Americans on the day before Wilma's fist race. During a practice run, Wilma severely sprained her ankle. The swollen & discoloured ankle was taped, tested for strength, & Wilma nonetheless got ready to run. Remember this was a girl who was not supposed to live long, who was not expected to walk, used a brace till 12 years of age for walking, & a sprained ankle, did not affect Wilma's plans to give this race her very best. The first thing you noticed when she ran was how she exploded from the block, furiously pumping her arms to build up her astonishing speed. But what remained imprinted in the minds of people who saw her running was her long graceful strides after her initial burst of speed. Being all of 6 feet tall, with long, taut, ropy legs, & an aristocratic bearing, she reminded the spectators at the Olympic Stadium in Rome of a gazelle, a particularly fast, graceful, & elegant gazelle1. Minutes before the 100 metres race, when other athletes were pacing & stretching in the infield, Wilma Rudolph fell asleep after a massage in the trainer's table. Ed Temple panickingly sent a team mate to bring Wilma to the running turf. Showing not even an iota of anxiety, Wilma walked on to the track, ready to prove her mettle. At the

shot, she exploded, running past Jutta Heine (supposedly the fastest woman on the planet!!), in less than a second. She didn't look back, & when she finished winning gold, she had also set a new world record, at 11 seconds. Unfortunately the record was not approved because the wind at her back blew at 6 miles an hour (a mile & a half over the allowable limit). No one had ever seen a woman run so fast or elegantly1.

On the next day Wilma made another world record finishing the 200 metres dash in less than 24 seconds. The stiff headwind did little to stop this young athlete from becoming recognised as the fastest woman on earth. On the day of the 400 metre relay, the stadium filled beyond capacity, & the crowd began to chant, & then roar "Wilma, Wilma, Wilma", as the runners took their place. The Americans got off to a good start, fighting for the lead. The second Tigerbell took it, & Lucinda Williams, the third runner had kept it as Wilma ran to take the baton from her & complete the race. Intent on her acceleration in the next moment, she took her eye off her immediate task, grasping the baton. She fumbled it. Had she dropped it the American team would have been disqualified. She managed to somehow hold on to it, but two runners sped past her, Jutta Heine being one of them. The roaring crowd gave an audible gasp, as Wilma fumbled with the baton & groaned as Heine passed their Gazelle (as Wilma was fondly called). Jaws dropped in utter astonishment as she pumped her arms like pistons & flew down the track in blinding speed. In seventy five yards she had retaken the lead, & seconds later crossed the finish line a little ahead of Jutta Heine. She was the first American woman to win 3 gold medals, & beyond doubt the fastest woman on earth1.

Wilma Rudolph never participated in another Olympics, she was an advocate for the civil rights & women's rights movements. When her hometown of Clarksville wanted to have a parade in her honor, Rudolph insisted that the celebration be open to whites and blacks, not just one or the other as was customary; the parade and dinner following were the first integrated events in Clarksville.

Both women and African Americans felt the glass ceiling crack when Wilma Rudolph competed and won in the 1960 Olympics. A testament to her hard work and dedication, along with her family's love and faith, Wilma Rudolph could not be stopped by polio, racism or sexism and is a role model for generations to come2.

Wilma Rudolph's story will inspire millions for centuries to come, but there are certain lessons Physiatrists old & new, can learn from it….

Believe in the beauty of other's dreams…In our dog eat dog world, we often fail to appreciate the beauty of other people's dreams. Just because a person is differently abled, or they are unable to afford 'standard treatment', it doesn't mean that they can't dream lofty dreams, dreams that at times may seem crazy! We as Physiatrists must keep an open mind, & a warm heart, & encourage our patients' dreams as far as possible. If statistics are useful in this effort, use them, or else throw them aside. Sometimes small improvements in the rehabilitation protocols can help a differently abled person to edge closer to their dreams. If the dream sets your patient's soul on fire, your efforts can literally work miracles.

The family can be a very powerful rehabilitation unit…The love, care & encouragement that a family provides, has far reaching consequences in improving the quality of life of a differently abled person. If we take Wilma Rudoplh's example alone, she was not expected to live long, in early infancy. She spent much of her childhood in bed, sick & alone. She wasn't expected to walk in life. But through it all, Wilma's parents & siblings gave her all the love, courage & treatment they knew how to. Remember how her siblings took pains to make sure her leg was mobilized at least 4 times a day. Thanks to their love & encouragement Wilma knew she would be able to walk, come what may.

Think about the new vistas in rehabilitation… Rehabilitation has undergone a seachange in the last few decades, compared to Wilma Rudolph's times. Artificial Intelligence, Softwares, & Robotics are revolutionizing vocational rehabilitation of the differently abled. We as Physiatrists must be prepared to think outside the box while designing vocational rehabilitation measures, & helping people achieve their dreams. Lest we forget, life is just a series of dreams strung together by time!

Role of human compassion & respect ….No matter how advanced we as a human race get, nothing can replace the compassion & respect we feel for our fellow human beings. Many of us cannot believe in ourselves unless someone else believes in us first. Wilma was blessed with a loving family, a doctor who treated her for free, a coach who went out of his way to guide her, team mates who worked to support her. Many a time differently abled patients may not be as blessed as her. We as Physiatrists must be willing to form a support group while planning vocational rehabilitation programs for the differently abled, because human compassion, love & respect are essential components of any rehabilitation program.

The world needs more Wilma Rudolphs…Wilma Rudolph went onto make a social impact that is as unmatched as her Olympic achievements. As Physiatrists & human beings it is our responsibility to realize that by using rehabilitation we are making our society & this world a better place. I'm sure we all agree that the global society & the Indian one in particular, could use a few (maybe many) more Wilma Rudolphs….

1. Character is Destiny by John Mc Cain & Michael Salter (Hard Cover, 1st Edition) ISBN-10 1400064120

2.http://www.myblackhistory.net/Wilma_Rudolph.htm

Survey Report on Physiatrists' Perspective on Vocational Rehabilitation

Dr. Anne Mary John, Assistant Professor in PMR, Kasturba Medical College, Mangalore

At a Glance

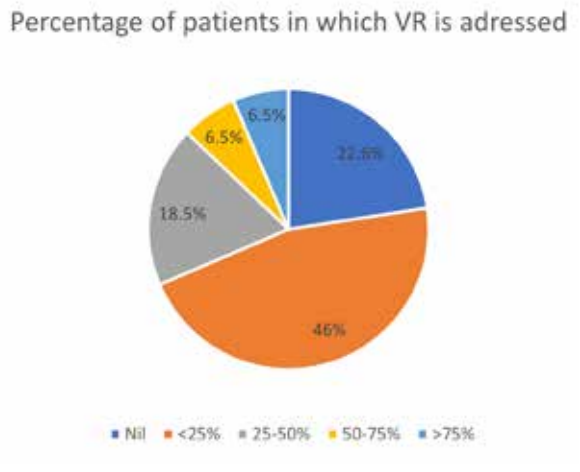
- 124 Respondents
- 74% under the age of 45 years
- 58.8% working in Government sector
- 93.5% opined that rehab is incomplete without VR
- 12.9% able to initiate VR in 50% or more of their patients.
- 44.4% commented that VR should be initiated at the onset of Rehab
- 74.2% identified physiatrist as the professional to lead VR
- 87.9% suggested combined role of Government and NGO in financing VR
- 52.4% expressed the need of more policies and personnel for improvement of VR
- 50.8% acknowledged their lack of knowledge about the provisions for employment of PWD.

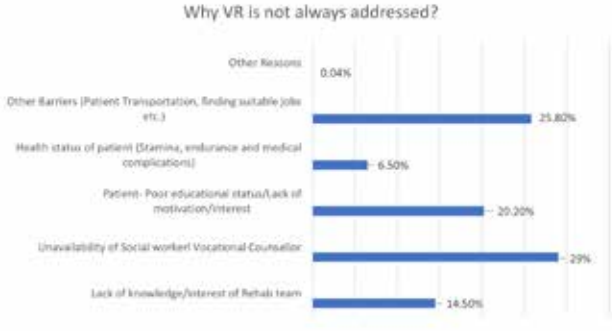
Vocational rehabilitation (VR) is still an unexplored territory for many of us. The 'Who', 'How' and 'When' of VR are rarely raised in our clinical discussions. This survey was done to know the attitude of the physiatrists and to trigger our thought process, so that we will gently tread into these uncharted waters.

There were 124 respondents to the survey, out of which 39.5% belonged to 25-34 years age group, 34.7% to 35-44 years, 15.3% to 45-54 years, 7.3% to 55-64years and 3.2% to more than 65 years age group. 32.2% of participants are working in Health services, 26.6% in Government Medical Colleges and 41.1% in the private sector.

Is VR always necessary?

93.5% opined that Rehabilitation is incomplete without addressing vocational rehabilitation. But only few of them could address VR and 22.6% could not initiate VR in any of their patients





To the question, as to why rehab is not always addressed, multiple reasons were identified. 29% felt that the non-availability of a social worker or vocational counsellor is the main cause, while 25.8% believed that multiple barriers were the main cause. Few other causes pointed out were non availability of vocational centres, inability to focus on VR due workload etc.

When, Who and How?

44.4% felt that VR should be initiated as soon as rehab starts, while 41.9% believed that VR should be initiated after completing the medical aspects of rehabilitation. 12.1% felt that it should be initiated once the patient shows interest and only a minority (1.6%) thought that after discharge would be the ideal time.

Initiating VR as soon as rehabilitation starts, has got its advantages. For eg: For a young man about to lose his job after a road traffic accident, intervention from the rehab team might save his job or might help to find a more appropriate job in the same institution or might lead to changes in the job environment

Majority (74.2%) opined that Physiatrists should take the lead role in VR while 18.5% felt that a Vocational counsellor would be more suitable to take the lead.

VR was described as a four staged process by Rubin and Roessler. It includes evaluation, followed by planning, treatment, and placement of patient. Unlike a normal individual, a person with disability has a medical problem and assessment by a vocational counsellor or a social worker will be inadequate. Only a physiatrist can look into the medical condition and tie it to functional capacities and give an opinion on VR. It is the author's opinion that physiatrist should lead VR. A Vocational counsellor should be part of all the phases and should be the active force in bringing it to realisation.

A Vocational counsellor or social worker trained in vocational assessment, will be able to assess employability of the person and help in placement. Such a professional will have the knowledge about the Government provisions for PWD and about the local labour market. They will also be able to assess the financial status of the patient and will be able to provide insight on the need of financial assistance. So, VR to become a reality a vocational counsellor or a social worker becomes an inevitable component.

Regarding the finance for VR, majority have felt that government should play the major role and the responsibility should not be given to the patient or the NGOs. 87.9% felt that the government and the NGO s should finance VR together, while the rest felt that it is solely government's responsibility. More than 50% have opined that allocating more personnel and improving policies would be the crucial step in improving VR. All these responses reflect on the common sentiment that Government should take more active steps in improving VR.

In Effect

For the query about 25year old, motivated computer graduate, with C7 complete tetraplegia, 85.5% opined that he can work and earn his livelihood. But analysing the responses regarding knowledge about provisions reveal that only 15.3% are aware about all the possibilities and out of which only 9.7% are able to put it into practice

Vocational Rehab Services in the Training of Physiatrists

Author: Dr. Hariharan

Vocational rehabilitation of PWDs, in itself is a vast field away from clinical or medical rehabilitation services. Of course, the medical rehabilitation personnel's satisfaction will be at its fullest only after vocational rehabilitation. It doesn't mean that the responsibility of the vocational rehabilitation should be taken up by Physiatrists. To this end, I would like to bring here some experience of vocational training and rehabilitation carried out by the erstwhile Comprehensive Rehabilitation Research& Training (CRRT) project in Trivandrum far back in 1967-1972.

It was the first- ever medical rehabilitation attempt in a medical college in Kerala. With all good intentions, the vocational training and rehabilitation services were also established in Trivandrum Medical College. The medical rehabilitation aspects were fully merged with the other clinical services in the institution. Fortunately, at that time vocational rehabilitation services including training of the PWDs were housed slightly far away from the hospital settings, nearer to the men's hostel complex. This went off very well and was well managed by non-medical labour-oriented personnel. At the end of the project, we could impress upon the government the need for vocational rehabilitation of PWDs. Hence the government of Kerala took over the concerned vocational training centre staff under its social welfare department, as a new unit of vocational training for the PWDs. During the project of 5 years, there were a lot of strikes, demonstrations and trade union activities in the vocational rehabilitation arena in the medical college (fortunately it was away from the clinical rehab settings). All those enrolled in the vocational rehabilitation unit had undergone medical rehabilitation in our clinical settings. But the clinical services were not disrupted by the infrequent demonstrations in the vocational rehabilitation areas. They were all more able than disabled! They fought for an increase in monthly stipend, competed for placement after training in different establishments, that too after a lot of demonstrations and trade union activities. We breathed a sigh of relief when the onus of vocational rehabilitation was taken up by the social welfare department. Physiatrists could function in their initial assessment and main clinical rehabilitation.

The experience of operating the vocational rehabilitation unit in the erstwhile CRRT project has clearly demonstrated the inadequacies of the medical school set-up with regard to running a job training centre for PWDs. Medical rehabilitation can evaluate and provide specialized therapy and prosthetics-orthotics services for maximum physical restoration. But such a program will not be able to solve the issues of vocational training and job placement for the handicapped. This can only be done by pooling the resources of the social welfare ministry, employment directorate, public as well as private sectors of industry, and available voluntary agencies. It's enough if postgraduate trainees are given exposure to this during their training.

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