MASTER OF PUBLIC HEALTH

Johns Hopkins Bloomberg School of Public Health & IIHMR University

PRACTICUM REPORT

By

Nihar Parpia

Cohort-9

2021 - 2023

Under the Guidance of

Dr. Monika Chaudhary

Associate Professor

IIHMR University

Dr. Dipendra Mehta

Secretary

Shree Bhagwan Mahaveer Viklang Sahayata Samiti (Jaipur Foot)

TO WHOMSOEVER MAY CONCERN

This is to certify that Nihar Parpia**,** a student of the Master of Public Health Program offered by IIHMR University, Jaipur in cooperation with Johns Hopkins Bloomberg School of Public Health, Baltimore has undergone Practicum Training at Shree Bhagwan Mahaveer Viklang Sahayata Samiti (Jaipur Foot), Jaipur, India from ***15th January 2023*** to ***15th March 2023***.

The Candidate has successfully carried out the study designated to her during practicum training and her approach to the study has been sincere, scientific, and analytical.

The Practicum Training is in fulfillment of the course requirements.

I wish her success in all his future endeavors.

Sd-

Dr. Monika Chaudhary

Practicum Advisor

Certificate By Scholar

This is to certify that the Practicum Project titled submitted by me, **Nihar Parpia** with Enrollment No. IIHMR-: IIHMR-U/07/2021-2023/0055 under the supervision of ***Dr. Monika Chaudhary*** for the award of **Master of Public Health** carried out during the period 15th January 2023 to 15th March 2023 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Nihar Parpia

MPH Cohort 2021-23

Certificate from the organization

JAIPUR FOOT

Shree Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS)
(Registered Under the Societies Registration Act. No. 261/1974-75)
Head Office : S.M.S. Hospital, Jaipur – 302 004
Main Branch : 13-A, Guru Nanak Path, Malviya Nagar, Jaipur-302 017 (INDIA)

Ref.No.BMVSS/ 68 /2023-24

Dated: 15.04.2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Nihar Afzal Parpia, student of Master of Public Health (MPH) offered by IIHMR University, Jaipur in cooperation with Johns Hopkins University, Baltimore has undergone a Practicum Training/Internship at the Shree Bhagwan Mahaveer Viklang Sahayata Samiti (Jaipur Foot) from 15th January 2023 to 15th March 2023.

As part of her internship, she has planned strategic plan for the sustainable management and functioning of this non-profit organization.

She is and intelligent and a hard working professional with a good conduct. We wish her all the best in her future endeavors.

Dr. Deependra Mehta, MD
Secretary

Phone No.91-141-4038735
Website: www.jaipurfoot.org Email : drmehta.jaipurfoot@yahoo.com; bmvssj75@gmail.com

Table of Contents

Jaipur Foot: Through a Strategic Lens

Background

Disability is defined as any constraint or lack of ability to do an activity in a manner or within the range considered like normal human beings, caused by an impairment. A handicap is a measurement of the social and cultural repercussions of an impairment or disability, while an impairment is concerned with the physical elements of health and a disability is the loss of functional capacity resulting from an impaired organ. (1)

Disability is a significant public health issue, particularly in developing nations like India. The trend towards more road and railway accidents, non-communicable diseases, and changes in age structure with an increase in life expectancy will lead the problem to worsen in the future. With community involvement, rehabilitation efforts should be tailored to the requirements of the disabled because the problems are different in industrialized and developing nations. In India, the majority of the disabled are less knowledgeable about the usability, accessibility, and cost-effectiveness of rehabilitation services. It is a challenge to conduct research on the burden of disability, develop effective intervention techniques, and put such tactics into practice in India today.

A person losing a limb places a significant strain on their families, society, and medical systems. The victims of traumatic limb amputation suffer emotionally. Additionally, it makes it difficult for people to maintain their families and themselves, and it pushes many amputees toward severe psychological diseases.

About the Organization

Shree Bhagawan Mahaveer Viklang Sahayata Samiti (BMVSS) is the largest disability-related organization in the world. In total, it has helped more than 2,000,000 disabled people worldwide. When opposed to other healthcare facilities, BMVSS operated differently, inviting and caring for amputees from all socioeconomic backgrounds. The organization's facilities were open to all amputees at any time, without registration or appointment. Even the security guard is permitted to enter patients, who were subsequently examined by a doctor during the following set of business hours.

Despite the fact that BMVSS did not publicize its work outside of camps, visitors from all across India come to its Jaipur center as a result of word-of-mouth advertising.
On any given day, one could come across people who had come from far places like Kerala in the south and Kashmir in the north. For prosthetic and orthotic rehabilitation services, the BMVSS is well-known throughout India, particularly in Jaipur, and even every auto-driver at the station knows that if a person without a limb comes out of the railway station, he is headed to BMVSS. BMVSS is able to fit 40 to 50 patients each day on average thanks to the Jaipur structure, the BMVSS, and the assembly-line method of limb fitting.

About the project

Although government funding, interest on its corpus, and donations enable BMVSS to achieve its Rs 15 crore yearly budget, there are times when the organization's corpus has to be utilized to pay expenses. The grants, which contribute to roughly one-third of the budget, have a history of being unreliable and erratic. This has prompted well-wishers to demand a change in the free-for-all approach, including Mashelkar, who is also a member of the BMVSS Global Advisory Council. "Making a business out of doing good," according to the former director general of the Council for Scientific and Industrial Research (CSIR), is not incorrect.

There have also been well-wishers and dignitaries in the past, who have suggested that the development of the organization cannot take place if the services are free and there is a need for setting up a sustainable business. The suggestion was to start charging at least a minimal price for his item, whose manufacturing costs total roughly Rs 2,500.

Though DR Mehta, founder, and chief patron of BMVSS is aware of the controversy, it has only strengthened his conviction that the current model is the best. He declares, "It [the model change] will only take place over my dead body." (2)

Keeping DR Mehta’s vision and belief and the suggestions given by the dignitaries in mind, my internship at the BMVSS aimed to study in-depth, the functioning of the organization and find areas where changes or improvement can be done, in order to facilitate a positive cash flow in the organization without charging any fees from the patient, hence adhering to the beliefs that the

foundation of BMVSS stands on. I also wanted to contribute towards making improvements in the experience of the patients visiting Jaipur Foot.

Practicum Objectives achieved

Program Planning Skills

• Collected and prepared information to support the sustainable functioning of the organization

•Developed organizational policy recommendations

Communication Skills

• Utilized learned skills to communicate effectively with a variety of stakeholders

• Formulate communication plans through input from stakeholders

The Course of Action from Point of Injury: An Overview

From the place of the accident, the patient is taken to the nearby hospital where the amputation surgery is performed. The patient can register for the Jaipur Foot appointment either through the SMS hospital registration center or the main Malviya Nagar registration center. As soon as the patient comes, first, the doctor on the ground floor sees the patient and decides the type of amputation and the required prosthesis, and electronically assigns a technician for the patient. The prescription of the prosthesis by the doctor at the Jaipur Foot organization is mandatory for obtaining the limb. The measurements are then taken, mold is created, and the foot is designed.

The majority of the patients (80%) are sent back the same day post-discharge and poor patients are given travel allowance according to their distance as well. All personal details for record purposes are taken at the end, i.e. at the time of discharge, not at the beginning. Complicated cases and those patients who require extended gait training are made to stay overnight, where free stay and food are provided. Lunch is provided to all patients free of charge daily, which is prepared by a catering house that is outsourced by Jaipur Foot.

Awareness created to the patients is by the following means:

- Jaipur foot website and social media pages

- Justdial.com
- Doctor’s suggestion
- Spread through word of mouth

Services provided

Apart from the conventional Jaipur Foot (lower limb), various types of upper limb prostheses (battery-operated, manual) are available and given as per the patient's need and ease of operation. Calipers are also available in various forms such as manual and automatic. Patients are also provided with materials that will be useful to them in starting a new job post-injury and earning a living such as sewing kits, and utensils.

Supplementary aids like walkers, sticks, and tricycles are also provided. Walkers and sticks are manufactured by the organization while tricycles and crutches are manufactured by BMSS (Bhagwan Mahaveer Sahek Samiti) which is a subsidiary of the organization located 40 kilometers away. Additionally, hearing aids and blind sticks are also provided by the organization.

Suggestions

- As treatment is free, to make the patients understand the value of the product and the service provided, a short counseling session can be organized during the waiting time, while their limb is being produced.
- Though the material for a new vocation is provided, an occupational therapist, who can give the patients personalized and guided training on its utility will help increase the efficiency of product usage.

Storage Unit, Material Transport, and Logistics

One storage facility is located at the Jaipur center from where the raw material is transported across the world. The raw materials for making the limbs and the completely made rubber feet are sent to all the branches and centers from the main Jaipur branch. The centers and branches that are financially stable by it while those that do not have enough finances are given free of cost. These

materials and products are also sent to other private entities that purchase these from Jaipur Foot and the costs include transportation as well.

Within India, transportation is done through outsourced cargo services, while overseas transportation is done by air or sea (for camps). Almost 28 branches and centers of Jaipur Foot are located all over India which place orders 10 days or so prior and then accordingly raw materials are transported to them. In one month approximately twice the material is transported by cargo to the branches and sub-centers. This service is utilized when supplies are more, while if supplies are less, a courier service(Jaipur Golden) is used.

A tender is done for the raw material as well as the supplementary items like walkers, crutches, and sticks in newspapers every year towards the end of the month of February and then for one financial year, the supplies for the particular raw material are fixed which may include suppliers from different parts of the country. This decision is based on the price, i.e., the supplier offering the materials and items at the lowest price is considered.

The hand kits are purchased from two organizations, the ALIMCO (Delhi and Kanpur) from where mechanical hand kits are purchased, and the Fast Track INC, Vadodara, and the Shree Navdurga Trust, Ahmedabad from where the electrical ones are purchased. Both these organizations are paid by Jaipur Foot for the kits and transport costs.

ALIMCO sells the mechanical hand kits to the National Rehabilitation Center, which in turn sells them to Jaipur Foot (at approximately a 3% profit margin). The National Rehabilitation Center is the dealer for ALIMCO as Jaipur Food cannot be a dealer due to the advanced cash that has to be given to ALIMCO.

The polycentric knee joint, which was designed in collaboration with Stanford University is given to patients who are above-knee amputees at a very reasonable rate as compared to foreign countries and is manufactured in India solely by an organization in Delhi named Sree Meenakshi Polymers. Though the Stanford polycentric knee is not patented, yet this organization is the only one in India that manufactures this and caters solely to the Jaipur foot. Hence Jaipur Foot does not remove any tender for this knee and solely purchases it from this organization.

The rubber feet are manufactured in three places: Jaipur, Delhi, and Kota and only the Jaipur branch transports it to other branches.

Suggestions

- From Jaipur, it may cost the transportation of raw materials to other centers is high, instead, the material can be bought directly by the branches and centers from the tied-up dealer. This is applicable for those centers that are self-sufficient, while those branches which are financially dependent on the main branch can continue to get the supply from it.
- If the branches and centers take stock for the whole month together it will reduce the frequency of transport costs.

Finance Unit

Each year's budget for the Jaipur foot organization is approximately 35 crores.

- The income is generated with the help of the following sources:
- foreign funds
- online donations
- general collections
- CSR
- government grants
- interest on deposits
- rent collected
- miscellaneous

Some of the consistent donors include TATA Trust, Aseem Premji Foundation, and Nomura Bank. There are also corpus funds including funds from Paul Hamlyn and Sudha Murthy. There is also an organization in the US that collects funds for the Jaipur foot.

The expenditure includes:

- VRC students
- leprosy home
- manufacture of appliances like artificial limbs, calipers, wheelchairs, tricycles, and crutches.
- economic aid provided to other institutions

There is a salary increment of 10% every year for all staff. The staff includes 30% differently-abled people who receive a handicap allowance of approximately rupees 150 in addition to their salary per month.

Incentives are provided for extra work to the technicians which is given for daily work if they cross the number of limbs they are supposed to design for the day as well as in camps where the per day allowance is fixed by the Indian government or the foreign Government/private party, whoever is conducting the camp.

Daily wage workers who are hired as temporary staff are paid approximately rupees 400 per day And are eligible for the increment as well but the percentage might be less than 10% as decided by the management but they are eligible for incentives according to their work.

Overall administration cost always remains less than 4%.

Branches and centers

There are 28 branches and centers of the main Jaipur branch. Branches are under complete control of the main Jaipur foot organization and all the raw material and other requirements are fulfilled by the main branch, while they can also conduct independent fundraising. The branches are allotted funds according to the area and the expenditure. For example, Delhi and Mumbai branches get maximum funds.

The balance sheet of the branches is sent to the main Jaipur branch for final auditing, hence daily reporting is practiced by them. The amount is transferred to the branches as per the meet and asks, not routinely. Centers are linked segments of the main Jaipur branch and can take decisions autonomously with prior intimation.

They can also conduct camps and do self-fundraising independently. Raw materials for centers as well as branches are supplied by the main Jaipur branch. The stand-alone centers that are financially stable purchase the material on their own, while the finances of those that do not purchase directly are managed by the main Jaipur Foot branch.

These products like rubber feet are also sent to other private entities that purchase these from Jaipur Foot. Associate centers are located outside India as well.

Suggestion

The organizations that sell Jaipur limbs to patients at chargeable prices by charging money can be sold the materials like rubber feet at a slightly higher price than those who do not charge any money from the patients in order to maintain a positive cash flow for Jaipur Foot.

Physiotherapy unit

There is also a physiotherapy unit linked to the organization located inside itself which charges nominal fees (50-60) which is taken from patients who can afford treatment while other poor patients and amputees who obtained their limbs from the organization receive treatment for free.

Musculoskeletal patients are seen by the orthopedician on the ground floor and are referred to the physiotherapy unit. In case an X-ray is required patients are sent to a nearby diagnostic center or SMS hospital depending on their socioeconomic status. Usually, 10 days of treatment of physiotherapy is provided to the patients. Amputees undergoing physiotherapy for pain management in the unit are treated free of cost and are also provided a free stay. Approximately 40 to 50 patients per day are seen, of which 10% are treated free. It is more or less a no-profit no-loss unit

Suggestions

- If a tie-up is established with the diagnostic laboratory nearby, it can act as a source of income for the physiotherapy unit and an additional source of income for the organization.
- Not all patients require 8-10 days of therapy, some conditions can be treated in 3-4 sessions, and a decision made on this can save the organization's resources, as well as the patient's time.

Human Resource department

There are a total of 150 staff in the Jaipur unit out of which 115 are technicians, five are doctors and others are admin and office staff (out of which some are serving honorary service).

Technicians:

The technicians are hired from national colleges of prosthetics and orthotics which include 3-4 government colleges in the country under the Ministry of Social Justice in consultation with the Institute of Physically Handicapped (IPH).

The interview process is conducted by a panel led by Dr. Dipendra, secretary of BMVSS.

Experienced professionals (2 to four years) are preferred but the current staffing consists of a mix of freshers and professional candidates.

The news of the interview is mostly spread through word of mouth and there is no official advertisement given on any official or social site.

Security:
Three security guards are outsourced by Jaipur Foot by two companies, namely Amera and Indus Valley.

The salary of the security guards is decided collaboratively by Jaipur Foot and the outsourced companies. The same companies also provide security guards to the subsidiary organizations of Jaipur Foot which include the leprosy home where there are two watchmen allotted and the center at the SMS hospital where three of them are allotted.

Out of the total eight security guards, four are outsourced from the two companies mentioned above and the remaining four are hired on a payroll basis.

Vocational trainer/helper:

A vocational trainer does the counseling for patients rehabilitated from Jaipur foot through his company NCSCDA, where 40 to 50 companies offering jobs to patients come every three months for a job fair and hire patients according to their qualifications and skills.

They also provide vocational assistance to MR(mentally retarded) and deaf and mute children

Six months to one-year training is given to all patients who require it, (depending on their educational qualifications and physical and mental ability) along with an INR 2500 monthly scholarship and free living and meals for the male patients.

Prior to the training, two weeks are invested in checking the patients' interests, IQ, and skill sets to train them accordingly.

Suggestions

- A push-mail mechanism, to make corporate companies aware of the benefits of hiring differently abled patients in their companies will be beneficial in increasing the number of companies on board that hire such patients, increasing the number of patients receiving jobs every month.
- Also, this association will help in receiving new donors on board for the Jaipur Foot organization, through potent CSR opportunities (in addition to the existing ones) of these corporate companies; thus working in favor of the patients, the corporate companies, as well as the organization.
- Lodging and boarding facilities for female patients should be arranged to motivate them to undergo the required training and get jobs.

Subsidiary organizations

1) Leprosy home: Provides stay, emergency medical assistance, food, job assistance and education free of cost to patients and their families there acts as the point of connection for communication between the home and Jaipur foot authorities. Medical needs are self-taken care of by the patients.

2) SMS center: consists of seven to eight technicians and two to three office staff

3)Bhagwan Mahaveer Viklang Sahek Samiti: this is an organization was established in 2004, presided over by Mr. Ashok Kumar Mahnoj, where tricycles, scratches, sticks, and walkers are manufactured for the Jaipur foot and other private buyers at the same price (inconsistent and minor) as well, while wheelchairs are bought from outside sources. This organization is paid for the goods purchased chased by Jaipur Foot and the two are independent in their existence and functioning.

It consists of 35 workers which are not permanent and are hired depending on the amount of work. The surplus revenue is given as donations back to Jaipur Foot mainly while it is also given to other

organizations. It is also to be noted that the Sahek Samiti takes part in the tender for the purchase of its goods by Jaipur Foot.

Research and innovation

The modification done in the Stanford polycentric knee was done in Jaipur Foot, in order to make it affordable and the modifications are still on.

Apart from the Stanford polycentric knee, presently the Jaipur foot is collaborating with a number of universities and institutions in India as well as abroad in designing innovative solutions for amputees.

There is also a gait laboratory in Jaipur foot which is used for research purposes to test patients for various parameters of gait after a new design is introduced in order to check its credibility and competitive advantage as compared to older designs.

Waste Management and Recycle and Reuse Strategy

In case of any defective raw material is received, it is returned and the old and worn-out machines that are beyond repair are discarded or sold.

Only HDP pipes are sold to the wasteyard. The rubber waste is collected every ten days, while the HDP waste is collected every 3-4 months.

Feedback Mechanism

A phone call is made to every patient after 3-4 months of returning home after obtaining the Jaipur limb, to obtain feedback on their experience of using the limb and gaining insight into their difficulties and their overall state of being.

Suggestions

- For the long-term implementation, and perception through a lens of a non-rudimentary and technologically more sound system, an online feedback model can be considered.

- This will also help in easy data documentation, dissemination, and highlighting of the precise areas where patients are facing difficulties, including a mental health aspect.
- In this model, even patients who do not own smartphones can access a link sent to them through an SMS and fill up a short and simple feedback form at the interval of one month and six months of obtaining and using the limb.
- A mental health aspect has also been added to the six-month questionnaire.
- The implementation of this model can be initiated in the branches located in comparatively literate regions, to understand its benefit and utility.

My Contribution

- I planned an online systematic feedback mechanism for patients to trace their problems after receiving the prosthesis and have an estimation of the timelines. (in English as well as Hindi languages)
- I designed push-mails for creating awareness among corporate companies about the tax exemptions and other benefits of hiring a differently abled person in their organization.
- I also schemed a counseling session for the differently abled patients coming to the organization. (in the Hindi language)

References

(1) World Health Organization. International Classification of Functioning, Disability and Health 2001. Available from http://www.who.int/classifications/icf/en

(2) Prince T. The Jaipur Foot's Standing Dilemma [Internet]. 2013. Available from: https://www.forbesindia.com/article/beyond-business/the-jaipur-foots-standing-dilemma/34783/1

Annexure

1) English Feedback Form

English Feedback.pdf

2) Hindi Feedback Form

Hindi Feedback.pdf

3) Push-email content

MAIL.pdf

4) Counselling session for patients in Hindi

Counselling for the patients_Hindi.pdf