

Internship
at
Thumbay Physical Therapy and Rehabilitation
Hospital, Ajman

By

Akshata Math

Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Health and Hospital Management

Academic year, 2017-2019



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

Organization Profile

Thumbay Physical Therapy and Rehabilitation Hospital (TPRH) is one the branch of Thumbay Group of hospitals located in Ajman, U.A.E. The hospitals was started in cooperation with Villa Breretta, facility of the valduce hospital in Como-Italy. Founded by Dr. Thumbay Moideen in the year 2018.Organisation consists of 34 staff members which includes, doctor, physical therapist, nursing, insurance, medical record, biomedical engineer, IT, marketing, front desk and house keeping. Patient flow is average of 100 patients per month. Infrastructure consists of three storied building consisting of five consultation rooms and five therapy rooms and one admin block and ten equipment rooms. Services provided by hospital were as follows:

Neurological rehabilitation

Neurorehabilitation aims to assist recovery from all range of nervous system injury, and to minimize any functional alterations resulting from it. Neurorehabilitation works with skills and attitudes of the disabled person and their family and friends. It focuses on all aspects of person's wellbeing by providing series of therapies from psychological to occupational ,training patients on mobility skills, communication processes ,and aspects of the person's daily routine. It also focuses on creative parts of a person's recovery

Stroke has become one of the leading cause of death due to increasing number of patients with lifestyle disorders such as diabetes ,hypertension and obesity etc .Stroke rehabilitation plays a major role in stroke recovery process. The programme aims to help the survivor understand and adapt to difficulties ,prevent secondary complications and educate family members to play a supporting role.

For majority of stroke patients, physical therapy, occupational therapy and speech therapy are foundation of rehabilitation process. Assistive technologies based on robotics and virtual technologies can also be beneficial.

Occupational technology involves training to help and relearn activities of daily living (ADL) such as eating, drinking, dressing, bathing, brushing, toileting, reading and writing.

Speech therapist are specialized in the evaluation, diagnosis, and treatment of speech and language disorders ,cognitive-communication disorders, voice disorders and swallowing disorders. They also provide sensory awareness related to communication and swallowing .Speech therapies play an important role in treatment of autism spectrum diseases .

Generally seen neurological disorders :

- Stroke
- Aneurysm
- Neuropathy
- Belly's palsy
- Carpal tunnel syndrome

- Neuralgia

Sports medicine

Sports medicine deals with physical fitness, prevention and treatment of injuries related to sports and exercise. Specialized in the treatment of athletes and other physically active individuals mainly focusing on musculoskeletal injuries such as muscle spasm, ligament tear, tendon and bone related problems. The goal of a sports medicine is to help athletes engage in exercise safely and effectively in order to achieve their training goal.

Services includes:

Pre-season Assessment-

The goal of pre-season assessment is to provide a baseline measurement of the athlete and to help prevent injuries in the season. Assessment evaluates the athlete's musculoskeletal , cardiovascular and psychological well-being. It provides objective feedback about weaknesses and strengths. Pre-season assessment is necessary to evaluate athlete's readiness for match performance. Assessment identifies risks before they occur by reviewing training methods, the competition schedule, travelling and past injuries .Test may include

- Y- Balance Test
- Functional Movement Screening
- Single-leg hop
- Carioca and Co-contraction test
- Gait analysis
- Pre- season health checkups includes-
 - Medical issues, medications, immunizations and allergies
 - Prior sports-related injuries /surgeries
 - Psychological issues
 - Eating habits

Optimization of Performance-

No the matter the choice of sports, optimal body function can be achieved only when the body is properly aligned. Training focuses on improving mobility , and reduce nerve interference between brain and body. This ensures success in achieving goals like improved speed, agility, balance and strength. Performance optimization is achieved by :

- Improving Core strength and Core stability
- High-performance training
- Speed coordination techniques

Injury prevention and Rehabilitation-

Injury prevention helps to reduce potential sports injuries and benefits athletes to perform better and stay longer duration of participation in the involved sports . Injury prevention can be achieved by primary, secondary and tertiary prevention.

Primary prevention focuses on avoidance of injuries by various aids. Secondary preventions involves early diagnosis and treatment .Tertiary prevention solely focuses on rehabilitation to correct an existing disability from traumatic event happened during sports.

Sports Injuries –

- Hamstring strains
- Tennis or Golf elbow
- Ligament Injuries
- Rotator cuff strains
- Ankle sprain
- Achilles tendonitis
- Jumper's knee
- Shin splints
- Metatarsal stress fractures
- Concussions
- Groin pull

Pediatric rehabilitation

Pediatric rehabilitation is designed to improve the abilities of children following major injury, illness or medical procedures which affect their functions. Pediatric rehabilitation programs aim to maximize the ability of the child to participate in activities at home, school and the community. Families and caregivers play a key role in the rehabilitation program. An individualized program is designed to achieve specific goals in areas such as mobility, self-care and communication. Services are offered until young people have completed secondary schooling and includes transition to adult based services when appropriate.

In Rehabilitation ,Physician understand how cognitive and physical disabilities affect growth and development .They then incorporate this knowledge to design individualized treatment programs specifically tailored to each patient and his/her family. Pediatric Rehabilitation is to restore function and improve quality of life. The goal is to obtain not just the medical perspective, but also nursing, occupational, physical and speech therapy, psychology, home care, etc., in providing the most comprehensive care for children. Pediatric rehabilitation is concerned more about building strength and improving skills. It's more about inspiring

children to gain the skills and confidence to reach their full potential.. Pediatric Rehabilitation will encompass historical, theoretical, ethical and legal perspectives, current practice and new developments in research and service delivery in a wide range of relevant fields.

Pediatric Rehabilitation is fully equipped with sensory room and various equipments providing the perfect environment for child's rehabilitation.

Types of Conditions treated in Pediatric Rehabilitation:

Cerebral palsy, traumatic brain injury, spinal cord injury, spina-bifida, amputation, muscular dystrophies of all types, stroke, cancer, mental retardation, developmental delays, and others.

- Spasticity and gait abnormalities
- Speech and language impairment
- Feeding and swallowing difficulties
- Behavioural issues
- Movement impairment
- Developmental delay
- Sensory processing disorder
- Cognitive rehabilitation – assessment and intervention concerning memory, problem solving and organizational strategies
- Chest therapy - to speed up recovery and minimize respiratory complications.
- Positioning and mobility
- Adaptations for activities of daily living

Neuropsychology

Neuropsychological services provide behavioural modification training caused by neurological trauma .It aims to understand how behaviour and cognition are influenced by brain functioning and provide diagnosis and treatment for behavioural and cognitive neurological disorders. Rehabilitation of sensory and cognitive function involves retraining neural pathways to improve functioning that has been diminished by disease .

Commonly seen disorders-

- **Attention deficit/hyperactivity disorder (ADHD) :**

ADHD is a disorder which makes it difficult for a person to pay attention and control impulsive behaviour .

- **Alzheimer's disease :**

Alzheimer 's is a neurodegenerative disease which causes difficulty in remembering recent events ,problems with language, mood swings and disorientation .

- **Parkinson's disease :**

Parkinson's is degenerative disorder of the central nervous system causing slowness of movements, shaking, difficulty in walking, emotional and sensory problems.

- **Dementia:**

Dementia is the loss of cognitive functioning –thinking, remembering and reasoning. These functions include memory, language skills, self-management ,and the ability to focus and pay attention.

- **Multiple sclerosis :**

Multiple sclerosis is a long-lasting disorder affecting brain ,spinal cord, and the optic nerve causing vision impairment, imbalance, and other basic body functions.

Orthopedic rehabilitation

Orthopaedic rehabilitation is concerned with the correction of functional impairment of the musculoskeletal system which includes bones, muscles, cartilage, tendons, ligaments and joints. Physical therapy uses a variety of treatments and physical exercises to begin the rehabilitation process at the onset of injury. Therapies helps to strengthen the body, reduce pain and prevent future injury. Evaluation is done to determine range of motion ,muscle strength, postural alignment and abnormalities in movement patterns ,body mechanism and quality of movement with daily activities. Personalizes care is designed to help individual to meet specific recovery needs. Post -Surgery rehabilitation plays a pivotal role in restoring joint movements after surgeries which involves locomotory system such as knee, hip, shoulder and ankle replacement procedures

Therapies provides significant benefits to :

- Back and neck pain
- Carpal Tunnel Syndrome
- Muscle, myofascial and joint pain
- Sprains and strains
- Orthopaedic injuries
- Pre- and post-operative conditions
- Weakness or loss of motion
- Soft tissue injuries
- Osteoporosis
- Body misalignments (scoliosis)/Spinal dysfunctions
- Chronic pain / Fibromyalgia
- Sports-related injuries
- Balance disorders

Technologies used in Thumbay Physical Therapy and Rehabilitation Hospital:

- Movendo
- Nirvana
- Ekso skeleton
- Virage simulation
- Isomove
- J-dome
- Human xr
- Riablo
- Giat lab
- Tyromotion technologies (myro, pablo, amadeo, diego)
- Rapel (smart gloves and smart board)
- Tecnobody
- Prokin
- Walker view
- Antigravity
- Sensory room