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A SURVEY ON TRADITIONAL METHODOLOGIES FOR PHYSICALLY CHALLENGED

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ABSTRACT:

This study deals with the traditional methodologies for physically challenged people.

The survey on traditional methodologies describes various traditional devices on mobility aids. This study also includes the necessities of mobility aids. It clearly explains the comparison and risks associated with mobility aids. It also says that canes are the best mobility aid in traditional devices which are mostly used by old aged people.

INTRODUCTION:

An individual's ability to perform any mobility task can be compromised by impact body functions or structures. For people who have disabilities in tropical setting and low resource have barriers to mobility and physical activity. Demands for health care services are great in numbers, consequently. One of the such services is assistive walking devices which place important role in mobility, stability, walking and

Independence of older adults. Fall incident with severe injuries occurs although various types of walking devices are available. Mobility impairments prevents older adults from performing their day to day activities which highly impacts on the quality of life. Mobility encompasses the ability of individual's to move his or her body within an environment or between environments also the ability to manipulate objects. The main objective of this research is to explore different options of traditional mobility assistive devices and to compare their pros and cons. Mobility aids are the one which is designed to elevate the impact of mobility limitations or improve independence and reduce the burden of care and help people with mobility problems to move around, enjoy greater freedom and independence. Many simple mechanical devices are available to overcome the barriers for immobility. Such traditional mobilities are canes, crutches and walkers which enable free movement similar to that of unassisted walking or standing up from a chair. Depending on the level

of fitness, strength, balance capabilities and risk of falls, the choice of aids varies.

NECESSITY OF MOBILITY AIDS:

To restore functional ambulation independence a patient can use a walking aid, either temporary or permanent. Training, Strengthening and exercise increases the capacity to handle the daily mobility demands. These helps in maximizing function by improving the ability to self-propel, decreasing pain and prolonging mobility and endurance through ergonomics, individualized wheelchair selection and configuration. The risk of fall can be lessened the problem of balance can be compensated and also the walking aid will assist in controlling the allowed weight bearing on the injured leg. Depressions, anxiety, increase in isolation are the difficulty faced by the patients during walking without any assistance or mobility aids. For ones medical conditions, patients often seek care from their primary care physician but physician frequently fail to recognize patient's practical problems. Improved confidence, Feelings of safety increased activity levels and independence are the reported results of patients using mobility aids. Enhancing independent mobility minimizing impairment postponing function deterioration and reduce the cost of care are the goals of using assistive devices. Assistive devices also benefit psychological problem including increased circulation, enhanced cardio-respiratory control and osteoporosis prevention.

SURVEY ON TRADITIONAL METHODOLOGIES:

Prior to 1930s disabled people were often abandoned by their own families due to lack of understanding about their conditions because they were viewed as unhealthy and defective. According to the world health organization(WHO) approximately one billion people i.e Around the 50 percent of the worlds population lives with disability. They used mobility aids such as crutches, canes, Wheelchair, walkers for locomotion. Some of the Traditional Methodologies are,

CRUTCHES: Crutch is a mobility aid often used by people for reasons ranging from short term injuries to life long disabilities and those who cannot use their leg to support their weight. There are several types of crutches such as axilla crutches, forearm crutches, gutter crutches.

AXILLA: Axilla are used by the people who are completely incapable of giving any support to the upper part of the body. The pads are placed against the ribcage beneath the armpits and holds the grip which is below and parallel to the pad. It can be adjustable both in overall height and handgrip height which is approximately to 48 to 60 inches i.e 12 to 153 cm. It should be positioned actually about 5 cm below the axilla with the elbow flexed approximately 15 degrees.

GUTTERS: It is also known as adjustable arthritic crutches and forearm support crutches. It is a padded forearm support which is made up of a strap metal and adjustable hand piece with a rubber ferrule. These are mostly used by patients

suffering from rheumatoid diseases who are on partial weight bearing.

FOREARM: It is also known as Lofstrand, elbow or Canadian crutches. It is designed as single upright, a forearm cuff and a handgrip. It is adjustable 29 to 35 inches i.e. 79 to 89 cm the height of the forearm crutches are indicated from hand grip to the floor.

CANES: A cane is the walking stick used as mobility aid on crutch. It improves ability by increasing the base of support and provides tactile about the ground to improve balance. It helps to distribute weight from a lower leg which is weak or painful. Canes are more stable due to their increased area of ground contact. Canes are generally light weighted compared to crutches because they transfer the load through the user's unsupported wrist and are unable to offload equal loads from legs. Some of the kinds of canes are white cane, folding cane, forearm cane, quad cane, tripod cane, adjustable cane, shillelagh are used.

WALKER: A walker is also known as walking frame. It is a tool for frail people or disabled people who need additional support to maintain stability or balance. It is most commonly used by age-related people who have physical restrictions. Walkers appeared in the market in the early 1950s; it is often used by those who are recuperating from back and leg injuries. It even assists the person when they climb staircases which helps a person to put their weight on the walking aid.

MOBILITY SCOOTERS:

Mobility scooter is similar to wheelchair. For direction control there are handlebars or steering wheel and the user's feet rest on foot-boards. They

are usually powered by batteries. Mobility scooters are useful for those who are lacking the strength of the proper body or ability to use a manual wheelchair. According to venue regulations regulating the use of mobility scooters on sidewalks and roads may differ. To increase the likelihood of a positive outcome, new users of mobility scooter need to seek guidance. To avoid, reduce the possibility of risk conditions, more analysis are taken into account by therapists to handle vulnerability into limiting the job opportunities of clients.

COMPARISON AND CHOICE ON MOBILITY AIDS:

Research studies indicate, for maneuverability, user friendliness and social acceptance, cane is the most popular one. Tandem With frail or pain leg and on the side opposite canes are normally advanced. Up to 15 to 20 percent of the body weight of a person are carried up comfortably by canes. Canes may theoretically be of possible benefit when a single assisting hand is enough to help the patients to walk. But a walker might be a safer option in case the patients need help by using both of their hands to keep their gaits steady. If the patient needs weight bearing assistance but not continuously then a front wheeled walker can suffice. For some patients who cannot walk comfortably or who have extreme lower extremity weakness then a wheelchair may be the best choice. Canes were the most popular device used by 72 percent users followed by walkers and wheelchairs among all the mobility aids.

RISK ASSOCIATED WITH MOBILITY AIDS:

Though mobility aids provide users with a variety of benefits, there also exist risk of injury associated with it .for example crutch paralysis caused due to underarm crutches. Excessive pressure on the nerves in the armpit can occur due to underarm crutches. Various problems can occur when cane is not used properly. Only one - third of the users receiving their mobility aid from the medical provider are qualified to use them. Research shows that many user are not adequately qualified to use their mobility aid.

CONCLUSION:

This study reveals the merits and demerits , performance, varieties of traditional mobilities which are subjected to different variations. We found that the most common traditional mobilities is cane.The above mentioned devices provide huge benefit to users which includes more independence ,reduced pain and increased confidence and self esteem.In our analysis survey we have addressed the context and various traditional mobility aids.The advice of the doctors are the best choice also the patient's own interest. In the end, the success and personal interest of a patient will determined the best support.

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