## Role of Physiotherapy in Geriatric Psychiatry and Dementia

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Geriatric Physiotherapy is an area where physiotherapy has a lot to offer & there is a lot of potential to further maximise the scope in this area which still remains underutilized. Infact, in geriatric population, physiotherapists are often the first contact person to identify & recognise the underlying cognitive problems requiringindepth intervention beneath the carpet of physical activity problems posed by the geriatric population. The purpose of expected outcome of physiotherapy in geriatric patients is to maintain or improve their functional status.

Geriatric populations like any individual perceive their functional status normally in terms of social roles & obligations rendered by them like being a grandfather & lifting their grandchild, attending family gatherings & involvement in leisure activities like joining a laughter club or walk in a garden. Successful performance of complex physical functional activities like dropping a grandchild to school by public transport, grocery shopping has an overlapping psychological functions associated with it. Each physiotherapist address the two issues: What is the patient's current functional level? & which impairment contributes to the patient's functional limitation? Thus when a physiotherapist brings out an improvement in physical functioning, it also thereby brings out an improvement in social functioning of geriatric population.

It is seen that with advancing age, reduced functional status & cognitive impairments show an increase in number. More the cognitive impairments in geriatric population, higher the risk of low functional status is associated with it. Thus preventive strategies directed to lower the risk of cognitive impairments should be addressed well in advance. Many studies have directed to the finding that regular physical activity not only offers other health benefits but have also shown delay or prevent the onset of cognitive impairments or dementia in elderly. It has been proved that physical activity sustains cerebral blood flow by decreasing blood pressure, lowering lipid levels; inhibit platelet agreeability or enhancing cerebral metabolic demands. Also improved aerobic capacity & cerebral nutrient supply is noted. Thus a well-planned physical activity programmed chalked out by physiotherapist goes in a long way to maximise functional status & fulfilling social role.

The changes associated with old age that brings a cognitive decline is referred to as "aging associated cognitive decline (AACD). All domains of cognitive performance including memory (recall), learning, attention ,concentration, thinking ,language & visuospatial functions have a role to play in physical activities of daily living thereby functional activities & social fulfilment. Confusion, dementia & senility are commonly used to describe the mental functions of the elderly. Example is a

confused geriatric person to pass urine may fall on his way to bathroom leading to hospitalization. Occasionally, depression may mimic a dementia condition, although usually the two often coexist. Memory loss, subtle changes in behaviour, impairments in judgements, problems in language& communication, behavioural problems like aggression, loss of incontinence, motor abnormalities, total intellectual loss & severe functional limitation is commonly seen in Alzheimer's disease. Ageriatric person,who is not able to communicate, wanders away from reaching to washroom thereby resulting in incontinence, bedbound with diapers & catheters. Thus cognitive impairments results in lack of judgement & improper act (e.g. picking a hot vessel of tea from the gas directly) which can lead to dangerous life threatening situations.

It is often seen that mild cognitive impairments can be missed during a routine physical check-up or in familiar home environments or routines, which worsens the problem lying undiagnosed. Also the age-related sympathy provided by the family members out looked by them worsen the problem in terms of restricting their social role (e.g. avoiding to send to grocery store for monetary calculation errors, inability to cross the roads etc).

A geriatric patient with underlying cognitive issues when commonly referred to physiotherapist to improvise or maintain his physical activity status, may seem to highlight the inability to comprehend or carry out the therapy properly in unfamiliar environment. A holistic approach carried out by the physiotherapist by thorough careful history taking & examination using appropriate tests &instruments like mini-mental state questionnaire, drawing a clock, etc. will provide with in depth understanding of physical functional activity limitation co-existing with the mental functional activity limitation. Thus focussing on improving physical functional activity only without a lack of awareness or ignorance of mental functional limitation will yield with no results or poor outcomes as the one of the root cause of the problem remains untouched. The geriatric patient will not understand the goals of treatment set up by his health team leading to increased frustration and embarrassment for his caregivers.

During the assessment, the physiotherapist needs to understand the cause of dementia or cognitive impairment & whether its nature in terms of reversibility or irreversibility. If irreversible in nature, its implications & prognosis for future outcomes and quality of life have to be anticipated & realistic therapeutic goals to be set up, with keeping in mind the legal, environmental & caregivers concerns. Knowing the whole person is critical; the assessment is built from this information will play a vital role in creating an individualised plan of treatment.

The physiotherapist's awareness regarding the caregiver's mental health status usually seen in form of depression, anger, frustration, guilt, denial, exhaustion should be acknowledged and looked into first so as to achieve the therapy goals of geriatric patient where patience and perseverance play key roles in success of treatment. Functional training where the activity is broken down into simple components, repetition along with kinaesthetic cuing is an effective technique for teaching proper functional movement patterns. Geriatric patient having dementia or cognitive impairment receives more somato-sensory feedback which can help develop a stronger mind-body connection. Studies have shown that sensory stimulation for elderly having dementia has improved their quality of life as they are able to interact with other person in a meaningful way. Caregivers have to provide this stimulation for a structured

activity by giving cues occasionally (e.g. Does this picture remind you of something? Does this surface feel smooth or rough), to enhance the independence and self-esteem, environmental adaptations have to incorporate the principles of safety & work simplification, eg. putting the cup sign on the cupboard, toilet signs on washroom door, one can replace buttons of dress for Velcro fasteners for activities of daily living independency. To overcome the problem of depth perception, colour discrimination, one can modify the environment by providing more light near stairs, installing handrails near stairs, colouring the steps with alternating colour patterns which can prevent falls and fossilization.

Thus the role of physiotherapist has to be understood with clarity how it can make a difference in quality of life of a geriatric patient with dementia or other cognitive impairments.