EDITORIAL

CENTER BASED VERSES TELE-REHABILITATION FOR DIABETES MELLITUS

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Globally, new trends of practices are incorporating in health care sector, academics as well as in our daily lives to cope with the current population need. It is much needed to develop and implement new sophisticated practice models in rehabilitation to treat the different clinical conditions. Diabetes mellitus is one among the top 10 causes of death, with significant increase of 80% since year 2000[1]. As estimated by International Diabetes Federation worldwide, 425 million people are suffering with diabetes mellitus.[2]

Diabetic neuropathy is one of highly prevalent condition which substantially affects patients by increasing frequency of falls, neuropathic pain and low quality of life (QOL).Diabetic patients suffer with following complaints i.e. Foot ulcers that develops due to peripheral vascular ischemia and poor pressure distribution on plantar surface of foot which increases the risk of fall due to loss of balance and disturbance in gait patterns.[3] Total 20% of foot ulcers need an amputation wherein patients further suffer with secondary complications which in turn builds massive economic burden on health care system.[4]

The rehabilitation combined with diet and medications has proven as an effective method to treat diabetes and its neuropathy symptoms. Supervised conventional center based physical activity training programs are generally in practice to treat this metabolic condition. Though clinical effectiveness of these programs is established on clinical outcomes, with reduction in mortality rate, despite all the benefits of rehabilitation programs, very low patient attendance is observed in hospital based supervised rehabilitation programs. The regularity in exercise along with dietary intervention and fixed medication monitoring is the key component to manage diabetes. But high drop-out levels negatively affects the proven effectiveness of rehabilitation. There are different aspects for this low level of participation i.e. lack of time, approachability of a program, home bound work or obligations and psychological barriers etc. Therefore, new practice models are essential to improve the rate of participation on regular basis in these exercise program.[5]

Computer based technological incorporation in the field of health is evolving dramatically as a promising tool in improving quality of life cost effectively. It can also help us to achieve WHO goal “to improve access to health care services and professionals”. Tele-rehabilitation may prove effective as part of the rehabilitation program, especially for diabetic patients who fail to participate in conventional rehabilitation center-based programs due to domestic issues. The factors associated with suboptimal participation in rehabilitation at home are less prevalent. In tele-rehabilitation, patients are not bound to visit rehabilitation center or hospital; hence they have the freedom to perform exercise at home. But the limitations in utilization of this approach are: patient assessment and evaluation in a structured manner, monitoring the effect of program on regular basis, suitability of approach for all type of morbidities & severity levels of diabetes and suitable equipment having required features for patients as well as practitioners.[6]

Tele-rehabilitation is a prospective opportunity to treat the diabetic patients through regular monitoring with less drop outs rather than center based approach. However, there is a need to identify the types and severity of diabetic patients for whom this approach is safe and effective. Secondly, it is required to define clinical assessment outcomes which can be monitored and assessed. Incorporation of advanced equipment and relevant operational training is indispensable. Development of Standardized documentation for patient evaluation, intervention and outcomes monitoring is imperative to long term sustainability and improvement of practice. It is equally important to ensure the security and confidentiality of Patient’s personal data and privacy.[7]

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