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Rehabilitation strategies person with disability in post COVID-phase: Review

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Abstract

The purpose of the study is about interventions in physiotherapy, advancement, broadly scope of physical therapy with various modes, health promotion, and identifies methods of enhancing adoption and implementation.

The Coronavirus disease (COVID-19) pandemic is proving to have far-reaching, detrimental implications on education and rehabilitation for persons with disabilities around the world. The aim of this study is to cognize the role of rehabilitation strategies person with disability in post covid-phase. More than ten recent articles are on rehabilitation strategies in which five articles are matched with rehabilitation strategies person with disability in post covid-phase. As countries recover, however, new opportunities to think and work out of the box may present themselves. In the era of digital transformation, families are able to receive virtual support anywhere in the world via the internet and smart devices, which facilitate access on a wider and more sustainable scale. Nowadays, specialists can support a larger number of beneficiaries remotely for restoring, preventing mental as well as physical health as our core components of rehabilitation strategy. The current situation has created an inevitable shift to technology. By analyzing data online, a service provider is able to relay immediate and automated support to the family. For example, if a family experiences difficulty in getting their child to respond properly, they can request immediate counseling remotely. Now a days using mixed form Telerehabilitation cum Hospital visits, for providing services.

Keywords: COVID-19, digital transformation, immediate counselling remotely

Introduction

- COVID-19's impact arose from its rapid emergence, the number of people needing intensive care, and the lack of prior knowledge of its manifestations. COVID-19 patients presented many clinical problems, including respiratory failure, excessive immunological response and clotting disorders, renal failure and myocarditis for person with disability around the world.
- The Coronavirus disease (COVID-19) pandemic is proving to have far-reaching, detrimental implications on education and rehabilitation for persons with disabilities around the world.
- Definition: "A set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment".
- Rehabilitation focuses on achieving functional independence in activities of daily living (ADL), participation in work, recreation and education, with individuals being able to achieve meaningful roles in daily life.
- The complexity and variability of the damage caused by COVID-19, coupled with the pre-existing disabling long-term conditions that many patients will have, means that there is no single, COVID-19 specific method to determine the need for rehabilitation.
- Rehabilitation should be seen as an essential service offered across all levels of the health care system. Many people without long-term impairments will need rehabilitation services at some point in their lives.
- Rehabilitation is a highly person-centered health strategy where treatment caters to the underlying health conditions as well as the goals and preferences of the user.
- Rehabilitation planning follows assessment and formulation. Planning is based on the patient's wishes and values, coupled with knowledge about prognosis and available interventions, and sets long-term goals with intermediate and short-term goals.
- Restorative rehabilitation focuses on interventions that improve impairments such as muscle strength or respiratory function and cognitive impairment to get maximal

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recovery of function. This is a common form of rehabilitation after surgery, illness or acute events such as a major trauma or a stroke in order to maximize function.

- Restorative rehabilitation focuses on interventions that improve impairments such as muscle strength or respiratory function and cognitive impairment to get maximal recovery of function. This is a common form of rehabilitation after surgery, illness or acute events such as a major trauma or a stroke in order to maximise function.
- Supportive rehabilitation increases a person's self-care ability and mobility using methods such as providing self-help devices and teaching people compensatory strategies or alternative ways of doing things. This may include the provision of assistive equipment or environmental modifications. This is sometimes referred to as adaptive rehabilitation.
- Palliative rehabilitation enables people with life limiting conditions to lead a high quality of life physically, psychologically and socially, while respecting their wishes. It often focusses on relieving symptoms, such as pain, dyspnoea and oedema, preventing contractures, breathing assistance, psychological wellbeing, relaxation or the use of assistive device, in order to maximise functional independence and support comfort, dignity and quality of life.

Rehabilitation objectives include

- Prevention of the loss of function
- Slowing the rate of loss of function
- Improvement or restoration of function
- Compensation for loss of function (compensatory strategies)
- Maintenance of current function
- People with disability are looking for information related to their likely increased risk for significant COVID-19 morbidity and mortality.
- Post-COVID syndrome is broad, one way to analyse it is to assess functioning, activity and disability according to the International Classification of Functioning, Disability and Health (ICF). The original ICF-based questionnaire contained 47 questions on function and activity/participation.
- On the basis of available literature evaluate ICF-based impairments in post-COVID syndrome, in participants who have had a mild initial infection with few participants being hospitalized.
- As rehabilitation strategy tool also used multimodal rehabilitation program for better efficacy of treatment or strategy.

Factors to consider in creating a rehabilitation plan for survivors of COVID-19 include

- Comorbidities
- Direct lung trauma
- Injuries to other organs and systems due to COVID-19

The WHO and the PAHO have compiled a document on the rehabilitation considerations during the COVID-19 outbreak, and the WCPT has also compiled briefing papers in response to COVID-19. The second briefing paper

specifically addresses rehabilitation and the vital role of physiotherapy.

Benefits of Rehabilitation in COVID-19 Patients

Rehabilitation has a positive effect on health outcomes of patients with severe COVID-19. It achieves this through:

1. Optimizing Health and Functioning Outcomes
2. Early Discharge Facilitation

Physiotherapy and the Post-Acute COVID-19 Rehabilitation Phase

1. Physiotherapists are instrumental in the rehabilitation of patients as they transition from the acute phase to the post-acute phase.
2. The consequences of COVID-19 will be specific in each individual and their rehabilitation needs will be specific to these consequences such as:
 - Long term ventilation
 - Immobilisation
 - Deconditioning
 - Related impairments – respiratory, neurological, musculoskeletal
3. COVID-19 patients will often present with pre-existing comorbidities and this must be taken into consideration in the rehabilitation plan for the patient. Physiotherapists working across various disciplines should work together and draw on the expertise of each other.

The transition from the acute to the post-acute phase needs to be supported through service delivery pathways and the multidisciplinary team will be key to this.

It is recommended to use easily applicable tests, as advanced equipment to assess the functional capacity of patients may not be available or safe to do during the pandemic. Clinical outcome measures that can be used:

- Patient specific functional scale to identify perceived limitations in activities of daily living
- Monitor patient's oxygen saturation and heart rate frequency before, during and after physical activity and exercises
- International Physical Activity Questionnaire to measure function and disability
- Physical Activity Scale for the Elderly to measure function and disability
- Berg Balance Scale
- Handgrip dynamometer test
- Manual muscle strength test

The multidisciplinary team should aim to use the same clinical outcomes for the same constructs to facilitate communication between team members and not burden the patient unnecessarily.

Materials and Methods

Study Design: Narrative Study/Literature Review

Source of Data: Cochrane literacy, Google scholar, Scopus, academia, Shodhganga, PubMed, Research Gate & Academia.

Inclusion criteria

- The language of publication is English.
- The publication is published in journal of physiotherapy

and science direct.

- Selected publication open-access free accessible.
- Protocol only for disable population.
- Physiotherapy and advancement in physical therapy.

Exclusion Criteria

- The language of publication is not any-other.
- The publication is not an article in a peer-reviewed journal.
- Paid published article.
- No Other then disable cases.
- Other approaches.

Results and Discussion

More than ten recent articles are on rehabilitation strategies in which five articles are matched with rehabilitation strategies person with disability in post covid-phase.

As countries recover, however, new opportunities to think and work out of the box may present themselves. In the era of digital transformation, families are able to receive virtual support anywhere in the world via the internet and smart devices, which facilitate access on a wider and more sustainable scale. Nowadays, specialists can support a larger number of beneficiaries remotely for restoring, preventing mental as well as physical health as our core components of rehabilitation strategy.

Conclusion

The current situation has created an inevitable shift to technology. What were formerly considered a hindrance may be the most viable, time effective and least expensive path to treatment. By analyzing data online, a service provider is able to relay immediate and automated support to the family. For example, if a family experiences difficulty in getting their child to respond properly, they can request immediate counseling remotely.

Now a days using mixed form Telerehabilitation cum Hospital visits, for providing services.

Post-COVID syndrome following a mild COVID-19 infection can result in impaired body functions and activities. These results support the importance of a multidisciplinary rehabilitation approach for these patients.

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