

Strategies to Adapt COVID-19 Impacted Low Resource Rehabilitation Services

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ABSTRACT

One-third of the global population is currently in lockdown due COVID-19 pandemic and there are indications that it will be lengthier than thought. It has impacted health care delivery system in acute, post-acute and community settings including medical rehabilitation. Bangladesh is a low-middle income country with large population and limited health services which houses the largest refugee camp of the world. Challenges impacted by COVID-19 and strategic suggestions are provided for adaptation of the rehabilitation services. Across the country many large medical institutions are struggling to meet the clinical demand due to COVID-19. One of the tertiary hospitals in Dhaka city, in accordance with other international rehabilitation organizations instituted measures to protect staff and patients: inpatient rehabilitation services closed since March 2020 at BSM Medical University. Adapted workloads include online specialist medical and allied health consultations, virtual rehabilitation services, limited ambulatory consultations and paced processing of community incoming referrals for rehabilitation services. There is increased emphasis on a modification of service styles including social distancing and safe working environment, with a focus on patients and family education. As the country lock-down restrictions ease, the rehabilitation post-acute and routine care need stepped processes to reopen which requires strategic planning. Strategic suggestion to adapt the services include a) relocation of the existing infrastructure b) Recruitment of proportionate rehabilitation work force in accordance of recommendations of WHO rehabilitation 2030 c) Ensuring adequate health education to protect patients d) Re-arrangement of work schedules e) Categorization of therapy services according to individualized merits.

INTRODUCTION

One-third of the global population is currently in lockdown as the world battles the COVID-19 pandemic. It has impacted the delivery of health care system in acute, post-acute and community settings including medical rehabilitation particularly at the low resource developing regions.

Bangladesh is a low-middle income country with a large population and limited health services which also currently houses the largest refugee camp of the world [1]. Bangladesh healthcare authority has responded by reorganizing services opening new temporary hospitals, converting private hospitals to government supported centers with increasing critical care facilities and recruiting number of health care workers. This paper highlights specific challenges impacted by COVID-19 and

suggestions are provided for adaptation of the rehabilitation services in the context.

Challenges and rehabilitation preparedness in response to COVID-19

There is an unmet and increased demand of rehabilitation services especially in low and middle income countries, including Bangladesh, further exacerbated by COVID-19 pandemic. Rehabilitation services have widely discussed challenges including political constraints, inadequate manpower and serious space crisis for further expansion [2]. Starting from the middle of March 2020 with the imposition of lockdown in Bangladesh, one of the tertiary large hospitals in Dhaka city instituted the following rehabilitation work measures to protect

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staff and patients: inpatient rehabilitation services closed since March 2020 at Bangabandhu Sheikh Mujib Medical University (BSMMU). This was practiced in consultation with local administration and in accordance with other international rehabilitation organizations [3]. Following the national COVID-19 lock down regulations, the regular online meetings commenced in the faculties and therapy professionals to discuss the importance of personal protection and self-training while working with COVID-19 or suspected COVID-19 patients. Adapted workloads include online specialist medical and allied health consultations, virtual 03 tier daytime rehabilitation services, limited consultations, limited ambulatory consultations and paced processing of community incoming referrals for rehabilitation services. Rehabilitation therapy services are limited to virtual-non touch technique such as 'please do the exercise, function, mobility as demonstrated', unless it is in ICU or in a critical setting. Across the country many large medical institutions are struggling to meet the clinical demand due to COVID-19

Pre-existing patients (for example, stroke, spinal cord injury and others) have lost previously treated functional attainments, with worsened pressure ulcers, bowel and bladder dysfunctions etc. These patients, along with the incoming new patients with COVID-19 residual functional deficits; (respiratory, neurological, fatigue and other deficits) require increased rehabilitation, making it challenging to also care for persons with; traumatic brain injury and musculoskeletal disorders due to limited resources and health infrastructure.

In the circumstances, there is an increased emphasis on social distancing and safe working environment, with a focus on patients and family education adapting the COVID-19 [4].

Since November 2019, COVID-19 pandemic has affected 4,815,234 with 316,846 patients died globally and this number is increasing alarmingly affecting more than 200 countries so far [5]. The WHO warned that COVID-19 pandemic will be lengthier than previously thought. The question facing governments and health care professionals is working out the optimum time to ease the lockdown restrictions and managing the acute and post-acute care rehabilitation service structure to treat COVID-19 patients.

The challenges facing Bangladesh and other low resource nations are an overall shortage of services within and outside the health system to prevent and treat non-communicable diseases (NCDs) including stroke, Diabetes, cancer etc. [6]. Like other low resource countries, the healthcare system is underdeveloped with major gaps in healthcare delivery where rehabilitation is not a health priority [1]. These settings have limited infra-structure and space issues for provision of optimal patient care given the visitor control and social distancing requirement for COVID-19 survivors. Staff training and education hygiene precautions, availability of PPE are additional challenges to protect the health care system

As the country lock-down restrictions ease, the rehabilitation post-acute and routine care need stepped processes to reopen which requires strategic planning.

Adaptation strategy for rehabilitation services

Suggestions to adapt the rehabilitation acute and post-acute care services include

1. Relocation of the existing infrastructures of rehabilitation therapy spaces and patient facilities to maintain social distancing and provision of clean facilities (info desk, waiting areas, therapy stations, WCs etc) for staff and patient safety.
2. Recruitment of proportionate rehabilitation work force to mitigate the increased workload in line with WHO rehabilitation 2030 recommendation [7].
3. Ensuring adequate health education for all the rehabilitation health care workers (HCW) for patient safety procedures.
4. Arrangement of work schedules so that any affected health care professional can be isolated if required with minimal service disruption.
5. Categorization of therapy services according to individualized merits into mostly home care online supervised rather than institutional supervised care groups with allocation of slots e.g. a) two times daily b) one time daily c) two sessions' per week basis during the crisis period.

CONCLUSION

COVID-19 impacted health care delivery system in acute, post-acute and community settings including medical rehabilitation. Re-organizing and adaptation strategy in the altered situations as pointed in the paper may be useful to find ways to achieve different time related goals especially at low resource setting.

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