Occupational Therapy service in post-COVID era, from hospital to community ~ Sharing from Hong Kong

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Sharing include:

- Patients' conditions of elderly, mental and children;
- Local studies and program evaluation to illustrate how the OT services can help those survive from COVID-19;
- New modalities of treatment used in the community to hasten normalization of life

Problems encountered by patients

- 1. More than 30% of patients referred to OT in Integrated Community Discharge Service (ICDS) program were suffered from chronic lung disease.
- 2. The COVID-19 pandemic induced social isolation, anxiety and mental stress individually and globally. Patients recovered from COVID-19 reported numerous ongoing health effects. A post COVID-19 recovery program was developed for psychiatric in-patients to support their recovery.
- 3. In the wake of the COVID-19 pandemic and social restriction, the mental health of individuals in Hong Kong has been severely impacted.
- 4. Long COVID-19 syndrome has been increasingly reported by patient after infection of COVID-19, of which cognitive complaints are commonly observed.
- 5. Dysphagia is a crucial problem in post-stroke care in an elderly residential home. The face-to-face training sessions for dysphagia were risky and were affected by the COVID-19 pandemic in HK.
- 6. The fifth wave of COVID-19 in Hong Kong had led to an unprecedented surge in hospital admission. Elderly COVID-19 patients were suffered from significant decline in self-care ability which led to discharge problem. Therefore, Occupational Therapy (OT) service was introduced to HKICC in March 2022 to provide in-patient rehabilitation service for COVID-19 patients.

Problems encountered by patients

- 7. During the 5th wave of COVID-19 pandemic, local COVID-19 service framework and case management approach by occupational therapist (OT) were adopted according to the needs of COVID-19 patients.
- 8. The emergence of COVID-19 in 2020 led to 2.74M people being infected and over 12,000 deaths. Poor management of the Long COVID symptoms, including fatigue, brain fog, emotional distress, exertional dyspnea and musculoskeletal discomforts, may lead to an increased number of unplanned medical consultations and healthcare burdens. Excessive health stress would lead to serious health problems. Occupational Therapists are dedicated promoting occupational justice, health and welling. A pilot outpatient service for patients with Long COVID was developed, underpinning the Social Cognitive Theory and the electronic health-enhanced chronic care model, which integrates telehealth to enhance access of care and rehabilitation.
- 9. Growing evidence indicates that many residents in residential homes experience cognitive impairments after recovery from COVID-19. Occupational Therapists designed a tailored multi-component rehabilitation program to alleviate the long-term cognitive impairments of residents in residential homes.
- 10. Both parents and children with mild grade ID comorbid ASD and/or ADHD face developmental challenges in functional occupations. After 3 years of COVID during which they had received scarce face to face training in educational or rehabilitation setting, parents are in distress to cope with children's transition to primary school

Studies/ program evaluation

- 1. The application of smart remote monitoring devices provide good visual cues with immediate feedback on SpO2, which allow OTs to effectively analyze the data and formulate prompt and individualized intervention for patients.
- 2. Post-COVID OT lead program is effective in enhancing hopefulness, well-being, emotional state & cognitive function for psychiatric patients. Further program development on longer-term COVID-19 disease management for psychiatric patients is essential.
- 3. A pilot study of mindfulness-based lifestyle redesign program has demonstrated potential benefits in improving the mental health of patients with mood disorders. Participants reported positive changes in emotional awareness, mood, and enjoyment of the program. Significant reductions in symptoms of depression and anxiety were also observed.
- 4. A study of 30 participants demonstrated that health Qigong LiuZiJue can increase the frontal oxyhemoglobin concentration and cognitive function of adults.
- 5. During COVID-19, the computerized biofeedback game-base swallowing training (BGBST) was proved effective in situation with reduced face-to-face training in elderly residential homes.
- 6. OT demonstrated a vital role in improving the ADL performance and the safe discharge of the COVID-19 elderly patients. However, the relatively short course of in-patient rehabilitation was not sufficient to optimize patient's ADL performance and decrease their frailty. Post-discharge follow-up by out-patient sector and home rehabilitation program were largely indicated for optimal benefit.

Studies/ program evaluation

- 7. Based on our preliminary COVID-19 service review during the in-patient and the community phase, it provided direction and insight for our service enhancement to prepare for the rebound of the COVID-19 pandemic.
- 8. Integrating telehealth to enhance access to rehabilitation in Occupational Therapy outpatient service:
 Asynchronous telehealth content fostered patient compliance with the home program. Patients with chronic respiratory diseases showed fair cognitive function recovery after attending OT Long COVID Rehabilitation Programme. Other factors, including gender, age, smoking, and exercise habits, should be explored. Patients who received two or more COVID vaccines demonstrated less cognitive impairment and better recovery, as measured by CTT. Further study will be conducted to explore the long-term functional improvement after patients attend the training, including emotion, functional balance, fatigue and dyspnea, ADL, Quality of Life, and Self-efficacy in managing Long COVID symptoms.
- 9. The multi-component rehabilitation program applied in 44 patients, results indicated that it might have a positive effect on the recovery of cognitive function in elderly COVID-19 survivors. However, the effectiveness of treatment might be different in elderly with dementia. Future studies should recruit more participants, adopt a randomized-control trail design, and have a longer follow-up period.
- 10. Parents experienced burden in raising children with ID, training programand parent support are in need to alleviate their stress in handling children and promote development. An effective parent-child OT program for mild grade intellectual disability(ID) comorbid ASD and/or ADHD illustrated that Occupational Therapy service embracing various treatment strategies to provide related areas of training is effective and crucial, especially in the transitional period of developmental life stages.