



Service Priorities and Programmes
Electronic Presentations

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Development of pediatric weight management service in Physiotherapy

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Introduction

Obesity is a worldwide health problem with an increasing trend. Following a surge in adult obesity, there is a rising trend in childhood overweight and obesity as well.

According to a cross-sectional study done in 2005 in Hong Kong, the prevalence of overweight was 16.4% and that of obesity was 7.7% , according to the International Obesity Task Force definition.

Objectives

To reverse this devastating trend, physiotherapy department of YCH launched a pediatric weight management program in 2017, aiming to modify obese children's lifestyle and introduce home exercises program to them. To increase compliance and adherence to exercise, mobile phone apps and interactive exercise equipment are utilized in our program. In the program, physiotherapists work closely with the pediatric unit of Yan Chai Hospital to assess the patients all-roundly. When appropriate, patients will be referred to other specialty for further management.

Methodology

Overweight patients are referred from pediatric unit to receive a course of physiotherapy starting from 2016. Physiotherapy management includes educational talk, home exercise program and class activities, aiming at achieving the following objectives:

1. To educate patients and parents on weight control concepts.
2. To introduce the concept of target heart rate in aerobic training.
3. To introduce aerobic exercise and home exercise program.
4. To introduce strengthening exercise through the use of dumbbells, theraband, gym machines and interactive rehabilitation machines.
5. To reinforce home exercise through the use of mobile app and web resources.
6. To motivate patients through inducing ideas of enjoying exercise.
7. Lifestyle modification, with reduced sedentary activity and increased physical exercise.

Result

Default rate.

The drop-out rate of pediatric weight management program is high worldwide, ranging from 27-73%.

After the implementation of measures to improve the drop out rate, the default rate reduced from 30.6% (March-July 2017) to 10% (August-September 2017).

2. Weight related outcome

The weight and waist circumference remained unchanged upon completion of program. Although insignificant, a trend of drop in waist circumference from 101.042cm to 99.708 cm ($p=0.056$) is noted after completion of program.

3. Muscle strength

There is a significant increase in hand grip power of patients attended the program (mean = +5.279%, $p < 0.05$); while the result of 1-minute sit-up test remained unchanged.

4. Lifestyle

Among 10 patients completing the program, 5 patients reported that they started to develop regular exercise habit upon discharge.