

# Giving OTAGO a GO



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## 1. BACKGROUND

Falls are a major public health problem because they are common in people aged 65 and older. Falls among the elderly are the leading cause of injury in this age group. Falls can have serious consequences such as trauma, pain, impaired function, loss of confidence in carrying out everyday activities, loss of independence and autonomy, and even death.

Around one-third of generally healthy people aged 65 and older will have at least one fall each year, and a key concern is that the rate of falls and severity of the resulting complications increase dramatically with age. The majority of falls occur because of multiple interacting factors, but leg muscle weakness and impaired balance contribute to most falls. The economic costs of falls increase with fall frequency and falls are an independent predictor for admission to long-term care. Therefore, healthcare cost savings for both acute and long-term care can be expected if falls are reduced.

Many ESTHERs (residents from Kreta Ayer SAC – Jalan Kukoh) indicated that they are afraid to fall. Majority of the ESTHERs shared that they wish to have a trained healthcare professional conducting their daily morning exercise. These ESTHERs are aged 60 years old and majority of them are either staying alone in (i) a rental flat or (ii) sharing a rental unit with a flat mate.

Kreta Ayer SAC – Jalan Kukoh has been conducting regular morning exercise sessions since their establishment. Their regular morning exercise sessions consist of Qigong, Tai Chi and Aerobics. These sessions are normally conducted by the Centre Manager and assigned staffs for the day.

These ESTHERs wish to improve their strength as a prevention from falling and therefore gaining their confidence to ambulate freely in the community – the team generated ideas to life.

## 2. RESEARCH AIM

Reduce the fear of falling by conducting physiotherapy OTAGO exercise for ESTHER(s) with CFS 3-4 within the duration of 8 weeks.

## 3. METHODOLOGY

A survey questionnaire with 43 ESTHERs was conducted in Kreta Ayer SAC – Jalan Kukoh to explore ESTHER concerns and willingness to perform a new set of exercise regime.

With collaborative efforts from SGH physiotherapist, a total of three community nurses, two Centre managers and one program executive were given training by OTAGO-trained physiotherapist from SGH. A full set of handout was created to guide the team and healthcare professionals as a form of reference.

ESTHER Cafes were subsequently conducted for the staff members from Kreta Ayer SAC – Jalan Kukoh to identify areas of concern and refine the work processes to ensure sustainability of the implementation.



### ESTHER'S WISH LIST

- To walk confidently in the community without having the fear of falling
- To better improve their gait strength
- To have a professional healthcare leading the morning exercise sessions

## 4. PROPOSED SOLUTIONS

The structure physiotherapy exercise programme - OTAGO is an evidenced-based program specially designed to prevent falls. It consists of a set of leg muscle strengthening and balance retraining exercises progressing in difficulty, and a walking plan. The exercises increase in difficulty during a series of sessions. A group-based OTAGO compared with the original home exercise program showed that group training was more effective in improving functional balance, muscle strength and physical health. Overall the exercise programme was effective in reducing both the number of falls and the number of injuries resulting from falls by 35%. It was equally effective in men and women.

ESTHERs are expected to exercise three times a week and go for a walk at least twice a week. As most ESTHERs are active members in the SAC and has been attending daily morning exercise sessions, implementing the physiotherapy OTAGO program in the SAC was taken as a positive achievement.

The team conducts 3 outdoor sessions weekly (Monday, Tuesday and Friday). The exercises take about 30 minutes to complete. Two champions were identified among the ESTHERs to assist in conducting the session.

## 5. LEARNING POINTS

<b>Capability</b>	Centre Managers were willing to try out new implementation. However, they were not confident to carry out the session independently.
<b>Adaptability</b>	Sponsors were very willing to support the Coaches and able to accommodate to the hours needed in order to meet the goal of this project.
<b>Knowledge</b>	Trained physiotherapists were very willing to share and assist the Coaches, and impart their knowledge in other for the team to be able to carry out the implementation successfully.
<b>Flexibility</b>	Coaches were willing to try out and work around ESTHERs needs/goal.
<b>Sustainability</b>	Getting a CHAMPION among the ESTHERs was a challenge as they showed resistance and little confidence. We managed to identify CHAMPIONS and they were able to oversee other ESTHERs.
<b>Others: Logistics</b>	ESTHERs wish was to have the exercise done outdoor. Coaches had difficulty with carrying out the chairs every session as there was not much assistance rendered in the beginning. After a few sessions, ESTHERs and Centre Manager willingly assisted in the setup at the outdoor area.

## 6. FUTURE PLANS

1. ESTHER Project Escalation to other SACs
2. To train more community nurses to carry out individually structured physiotherapy exercise programs

