Project Title

Total Knee Replacement (TKR) Activity Recovery Guideline

Project Lead and Members

Project lead: Tok Xue Hui, Florence Cheong, Lim Hui Hui, David Zhang Jian Cai

Project members: -

Organisation(s) Involved

Tan Tock Seng Hospital in collaboration with AWWA, SPD, Ren Ci Hospital and St Luke's Eldercare Ltd.

Project Period

Start date: 01/04/2020

Completed date: 31/12/2023

Aims

The project aims to form a Total Knee Replacement (TKR) activity recovery guideline with the input from the TKR patients and multidisciplinary healthcare professionals from acute and community settings who work closely with the TKR patients (i.e. Physiotherapists (PT), Occupational Therapists (OT), Nurses). Second objective of the project is to identify the TKR clients' valued activities, facilitators, and challenges when recovering their valued activities. Lastly, the project aims to understand the healthcare providers' experience when rehabilitating the TKR patients to their valued activities.

Background

In Singapore, the number of residents over 64 years old undergoing TKR surgery have increased 2.7 times from 187 per 100,000 residents in 1999 to 499 per 100,000 residents in 2019 (MOH, 2020). TKR is expected to relieve pain, improve mobility, and improve ability to participate in physical activities and paid employment (Ding and Sathappan, 2018). The ability to maintain participation in meaningful and valued activities can influence a person's health and well-being. There is no local study has

explored the local TKR clients' perceived valued activities, timeline of returning and experience of returning to those important activities.

Healthcare providers work closely with TKR clients during their early and subacute recovery process, but the local healthcare providers' experience is not explored. Healthcare providers from a fast-track joint replacement centre reported that there is problem with resources of patient counselling, including insufficient instructions about later life with a prosthetic joint, inconsistencies in counselling due to lack of understanding, hurry, job rotation, forgetfulness, and discrepancies in the instructions prior to hip or knee replacement surgeries (Jansson et al., 2019a). Existing studies (Jansson et al., 2019b; Lawford et.al., 2019) reported healthcare providers' experience with TKR clients' body physiological-related difficulties and certain rehabilitation strategy such as telephone-delivered exercise, except one study (Coole et al., 2020) explored their experience with rehabilitating the employed TKR patients to workforce. Coole et al. (2020) found that there is unrealistic client expectation in returning to work, the need to have support from clinicians to facilitate retention of TKR clients in the workforce and the definition of work. Currently, there is no known local TKR activities recovery advice that incorporated inputs from the TKR clients and healthcare professionals, which may result in advice or practice variation when advising the TKR clients to return to valued activities or employment.

Methods

The project team interviewed 15 TKR clients at different stage of TKR recovery at post-surgery 2 weeks, 1 month and 3 months. During the interview, the TKR clients were required to identify their important valued activities with the help of a local-adapted card sorting tool, which consists of 85 instrumental, social and leisure activities. They were interviewed on their perceived barriers and enablers when recovering or giving up the activities.

The result of the interview with TKR clients were shared with the healthcare providers before the project team gathered the healthcare providers' experience of recovering the TKR clients to their meaningful activities. The project team performed a literature

review on the TKR activities recovery stage based on the inputs from the TKR clients and healthcare professionals. The project team formed 43 statements of activity recovery based on the literature review and the important valued activities selected by the 15 TKR clients. These activity statements were then gained consensus of 20 healthcare panellists (PT, OT and nurses) after 2 rounds of consensus method.

Results

The project team identified the following through the project:

1. Barriers and enablers of TKR clients when recovering to their valued activities (Figure 1)
2. 6 meaningful activities identified by the 15 TKR clients (refers to Figure 2)
3. Barriers and enablers of healthcare professionals when assisting TKR clients to return to valued and important activities.

The book – TKR activity recovery guideline for healthcare providers is written by the project team and gained ISBN for publish in the local text. This book will be shared with the participating collaborators, which may reduce the advice and practice variation in the local context.

Lessons Learnt

TKR offers means to resume meaningful activity participation. Joint effort and early planning for activity recovery is key!

Conclusion

The project adds to the knowledge of local TKR clients' experience when recovering to their valued and important activities. It also provides knowledge about the healthcare professionals perception when assisting the TKR clients in their activity recovery journey. The book – TKR activity recovery guideline is not only for healthcare providers use, but to made available to the public through the local national library board (hardcopy and electronic), as part of preparation for their TKR journey.

Additional Information

An e-copy of the TKR activity recovery guideline book is now made available on TTSH's Website (under Orthopaedics and Amputee Rehabilitation)

https://www.ttsh.com.sg/Patients-and-Visitors/Medical-Services/Occupational-Therapy/Pages/default.aspx

This project is funded under and by the Centre for Allied Health & Pharmacy Excellence (CAPE).

Project Category

Training & Education, Education Platform, Learning Culture

Keywords

Activity Recovery, Valued Activities, Meaningful Activities

Name and Email of Project Contact Person(s)

Name: Tok Xue Hui

Email: xue_hui_tok@ttsh.com.sg