Self-Management Education Programme on Functional Mobility for Knee Osteoarthritis in Older Adults.

Siti Salwana Kamsan^{1,2}, Devinder Kaur Ajit Singh^{1,}, Saravana Kumar³, Maw Pin Tan⁴

¹Physiotherapy Program & Centre for Healthy Ageing & Wellness, Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia.

²Department of Physical Rehabilitation Sciences, Faculty of Allied Health Sciences, International Islamic University Malaysia, Pahang, Malaysia.

³School of Health Sciences, City East Campus, University of South Australia, Adelaide, South Australia.

⁴Division of Geriatric Medicine, Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia.

2. Objective 1. Introduction To examine the effects of a tailored self-management 1. Almost 40% of the Malaysian aged over 40 years old have education programme (SMEP) on functional mobility among knee OA symptoms.¹ older adults with knee OA. 2. The incidence of knee OA in older population is highly associated with physical and functional impairment.² 3. The impacts of the knee OA may be reduced with selfmanagement strategies.³ Practical tips and skills on how 3. Methods **Participants** Baseline assessment recruitment **Booklet of SMEP** Contents of SMEP Back stretch Chair sit Handgrip reach test strength test PROGRAM PENJAGAAN KENDIRI: Allocation of All groups received OSTEOARTHRITIS SENDI LUTUT a 4-week SMEP + participants into a 6 MINUTE WALK TEST PENJAGAAN KENDIRI exercises packages group of 12 stand test Pengisian Program Struktur Sendi Lutut Osteoartritis Sendi Lutut Penjagaan Kendiri Untuk Osteoartritis A SMEP booklet Post-assessment: Gaya Hidup Sihat

Time up and go test

1. 30 older adults with knee OA with the mean age 66.77 (± 6.42) had completed the post-assessment.

4. Results

6 weeks after the

baseline

was prepared in

Malay language

2. The mean scores for 30sSTS, TUG and 2MW tests had improved significantly (p < 0.05) at post-assessment by 9.5%, 9.2% and 13.5% respectively.

	Pre-test	Post-test	P - value
	Mean (SD)	Mean (SD)	
CSRT RL	6.88 (±10.75)	8.70 (±12.08)	0.255
CSRT LL	5.63 (±10.17)	6.92 (±10.23)	0.408
BST RL	-3.47 (±14.23)	-5.73 (±14.92)	0.286
BST LL	-6.50 (±16.75)	-8.27 (±16.39)	0.488
HGST	24.17 (±8.11)	24.59 (±8.13)	0.309
30sSTST	13.00 (±3.05)	14.24 (±3.9)	0.014*
TUGT	8.62 (±1.35)	7.83 (±1.35)	0.001*
2MWT	109.70 (±21.61)	124.90 (±26.33)	< 0.001

5. Discussion & Conclusion

Penyesuaian Aktiviti Duduk Di Atas Lanta

enaman Untuk Osteoartritis Sendi Lutut

- 1. Improvements in 30sSTST, TUGT & 2MWT probably d/t regular exercises & physical activity. 4
- 2. HGST and BST did not significantly improved probably d/t more strengthening exercises for lower limbs.⁵
- 3. A tailored SMEP has the potential to nurture self-management skills in improving functional mobility. The implementation of SMEP in clinical settings should now be considered.





6. References

- 1. March, L., Cross, M., Lo, C., Arden, N.K., Gates, L, Leyland, K.M., Hawker, G. & King L. 2016. Osteoarthritis: A serious disease: Submitted to the U.S. Food and Drug Administration. 103.
- 2. Castell, M.V., van der Pas, S., Otero, A., Siviero, P., Dennison, E., Denkinger, M., Pedersen, N., Sanchez-Martinez, M., Queipo, R., Van Schoor, N. & Zambon, S. 2015. Osteoarthritis and frailty in elderly individuals across six European countries: Results from the European Project on OSteoArthritis (EPOSA). *BMC Musculoskeletal Disorders* 16: 359. doi:10.1186/s12891-015-0807-8
- 3. Shirley, P.Y. & Hunter, D.J. 2015. Managing osteoarthritis. *AustralianPprescriber* 38(4): 115. doi:10.18773/austprescr.2015.039
- 4. Bartholdy, C., Juhl, C., Christensen, R., Lund, H., Zhang, W. & Henriksen, M. 2017. The role of muscle strengthening in exercise therapy for knee osteoarthritis: A systematic review and meta-regression analysis of randomized trials. *Arthritis and Rheumatism* 47(1): 9-21.

 5. Marconcin, P., Espanha, M., Teles, J., Bento, P., Campos, P., André, R. & Yázigi, F. 2018. A randomized controlled trial of a combined self-management and exercise intervention for elderly people with osteoarthritis of the knee: The PLE2NO program. *Clinical Rehabilitation* 32(2): 223-232.