Evaluation of e-Physical Activity Program in Improving the Level of Physical Activity & Self-Efficacy among Stroke Survivors

Nor Azlin Binti Mohd Nordin, Lian Sin Jie, Haniz Naqib Hazadi, Ong Kee Yee
Physiotherapy Programme, Center for Rehabilitation & Special Needs Studies, Faculty of Health Sciences, Universiti Kebangsaan Malaysia.

BACKGROUND

Many stroke survivors with mild disability are sedentary and physically inactive despite the risk of stroke recurrence. e-Health program may be one strategy to increase their self management including managing physical activity. **However, evidence on online physical activity program is to date limited.**

OBJECTIVES

To design a suitable e-Physical Activity Coaching (e-PAC) Program and evaluate its effectiveness in improving the physical activity level and self-efficacy among stroke survivors.

METHODOLOGY

-Stroke survivors, >18 y/o
-MRS score of 0-3, with low PA level

Design e-PAc Program

Purposive sampling (n=45)
Subjects recruited from a recent local cross sectional study

1 group pre-post experimental study

Baseline measurements: online SPAQ, SSEQ

e-PAc Program implementation (6 weeks)

Post measurement: online PEMAT, SPAQ, SSEQ

Data analysis

e-PAc Program Details

Home- based

Bilingual Infographic, Multimedia, Diary

6 Weeks, biweekly follow up

Low - Moderate Intensity (FITT)
AHA guidelines

Packages:
A : Chair-based Exercise
B : Daily Activities
C : A + B

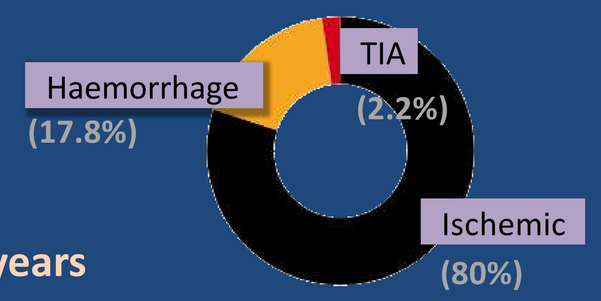
Benefits, Precaution, Progression

30 min/session on 3-5 days/week

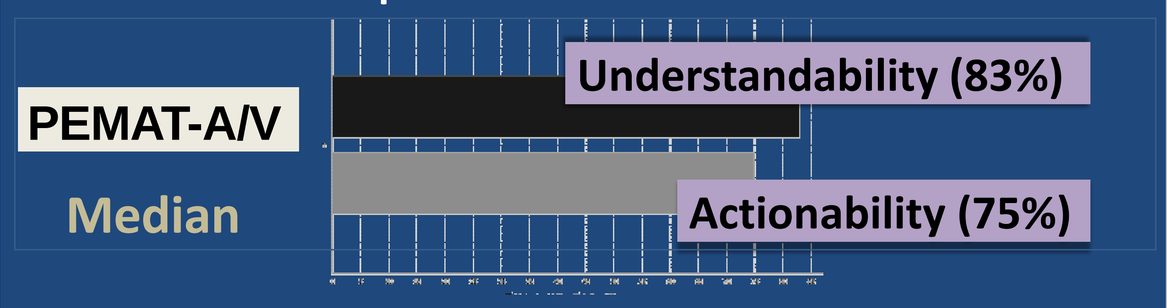
RESULTS

60% | 40%

Mean Age : 60 (SD=12.01) years



Perception of e-Pac module



Change in SPAQ

Wilcoxon Signed Ranks Test: Significant improvements of PA level especially among those with <30 min of moderate activity/day at baseline.

ADL package preferred, no drop-outs & adverse event

Change in SSEQ

Paired t-test: Significant improved score by 7.3 units,
t (44) = 10.043, p<0.05, ***medium, d=0.75***

Wilcoxon Signed Ranks test (Positive ranks)

Walk at home 66.67%

Preserve progress 68.89%

Exercise Planning 80 %

DISCUSSION

The e-Pac program is found to be useful :

- Flexible
- Cost-saving
- Self-control
- Effective Education

↑ Willingness to participate & PA practice

Bandura's social cognitive model

- "Self efficacy" : Psychological construct Belief in own ability to perform & succeed.
- ↑ by mastering activity & small achievements.
- Self-management

CONCLUSION

The e-PAc is a feasible physical activity promotion program which result in increased self-efficacy for functional performance among community dwelling stroke survivors. The program can be recommended for the continuity of post-stroke therapy and to facilitate self management. Further study with a control group is recommended to strengthen this study findings.

Key References:

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