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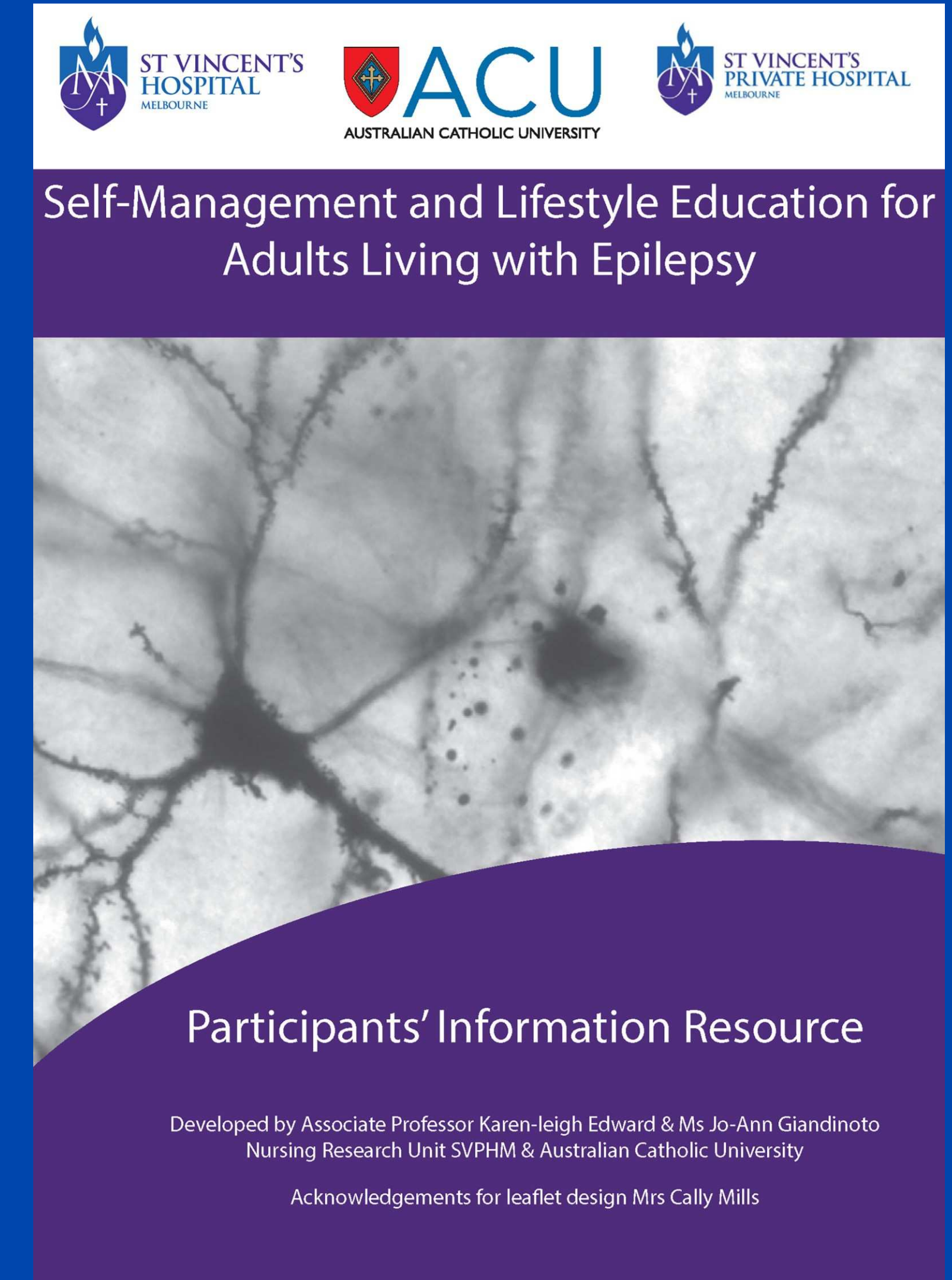
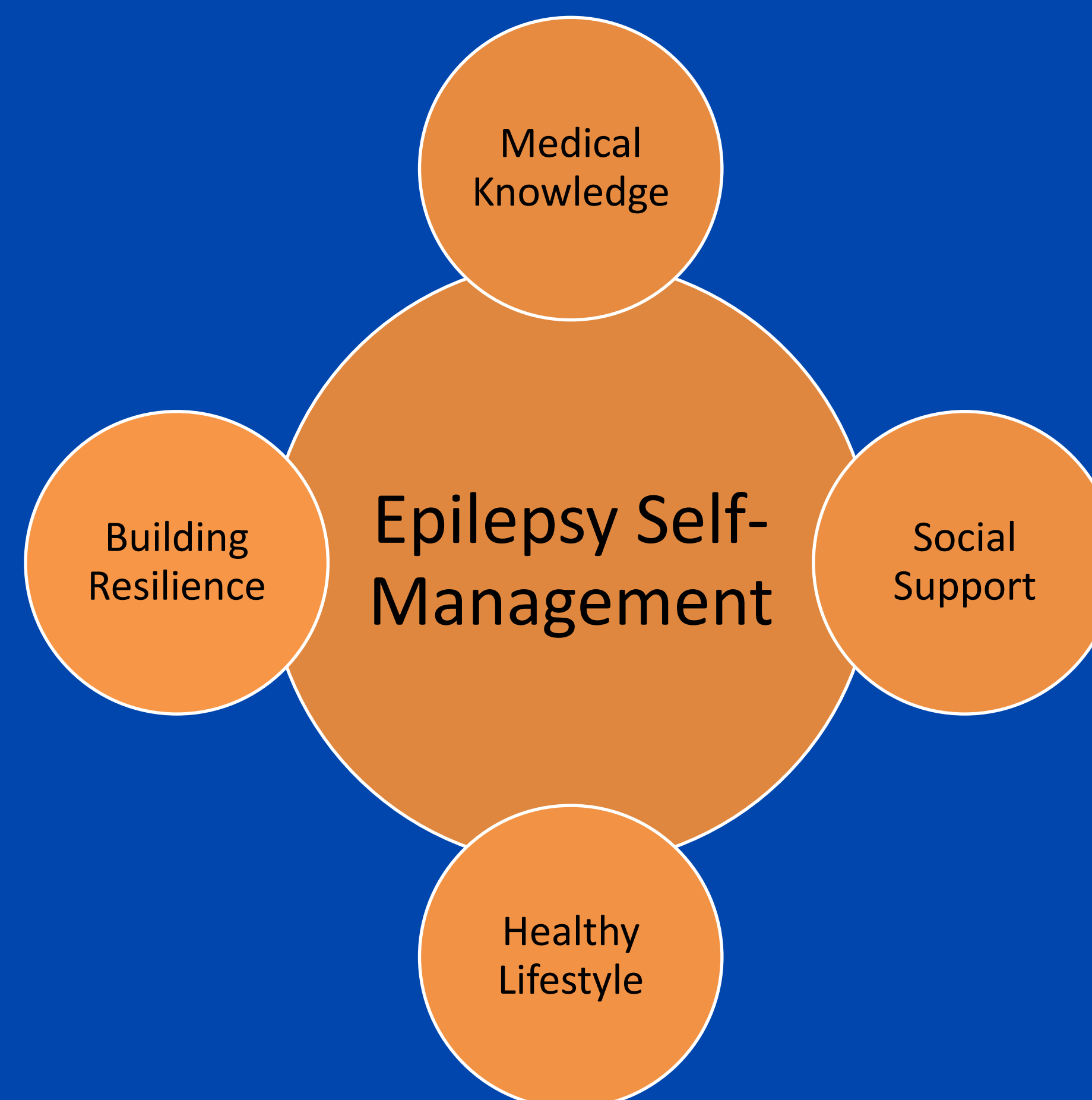
Using self-management to control seizures

Edward, K. ^{1, 2, 3}, Cook, M. ^{4, 5}, Holland, C. ¹, Perry, L. ⁵, Stephenson, J. ³, Giandinoto, J. ^{1, 2}, Crane, R. ¹, Molly, T. ⁵, Alderson, K. ⁵ & Kay, K. ²

1 St Vincent's Private Hospital Melbourne, 2 Australian Catholic University, 3 University of Huddersfield (UK), 4 University of Melbourne, 5 St Vincent's Hospital Melbourne

Introduction

Good lifestyle management has been shown to improve seizure control significantly. Benefits to almost 43% of patients have been reported from lifestyle interventions, a figure comparable to the introduction of new pharmacological agents (1-3). Education programs aimed at enhancing self-management behaviours for people with epilepsy may improve quality of life, seizure frequency and self-confidence, but they often do not feature in a comprehensive epilepsy treatment plan.



Aim

The aim of this study was to develop, deliver and evaluate the impact of an education intervention regarding lifestyle self-management in the control of seizures, health related quality of life (HRQoL), satisfaction with life and resilience for adults with epilepsy.

Method

A cohort with control study design was undertaken to evaluate the efficacy of the self-management education. Participants (n=60) were purposively sampled and allocated to the intervention (n=23) or a control condition (care as usual) (n=37). Baseline measures including medication adherence, resilience, HRQoL and satisfaction with life were taken on recruitment. Participants were also instructed to keep a seizure diary and these measures were repeated six months post intervention (time point 2).

The intervention

Self-Management and Lifestyle Education for Adults Living with Epilepsy is a theory informed, evidence-based and peer-reviewed education package developed specifically for the purpose of this study. The framework of the education package was based on Self-determination Theory (SDT) (4) and divided into four education modules: Managing Epilepsy and Medical Care, Socialising on a Budget, Leading a Healthy Lifestyle and Emotional Self-Management. Education facilitators included Clinical Nurse Specialists in neurosciences, who received prior training from the research team comprising background information and instructions on how to conduct the two-hour face-to-face group session.

The participating site

The participating sites were two large hospitals in Melbourne, Australia, [one public and one large private hospital].

Sample

Participants (n=60) meeting the inclusion criteria were recruited through the neurology wards and consulting clinics of neurologists. Due to being a pilot study no sample size calculations were undertaken.

Results

Sixty patients were analysed at time point 1 [at recruitment](37 control; 23 intervention). Thirty five patients were analysed at time point 2 (18 control; 17 intervention) (see table 1 for demographic data). Little's MCAR test showed no evidence that data was not missing at random ($\chi^2_{(20)}=14.4$; $p=0.809$); hence attrition bias is not expected

At time point 2 [6 months after the education] findings suggested moderate correlations particularly between resilience and satisfaction with life scores ($r=0.551$; $p=0.001$), medication adherence and psychological quality of life (QOL) scores ($r=-0.546$; $p=0.001$), and psychological QOL and satisfaction with life scores ($r=0.518$; $p=0.001$). The mean seizure occurrences between the control and intervention groups were 12.71 (SD 24.55) and 6.76 (SD 13.40) respectively post intervention. Although not statistically significant, a reduction in seizure frequency within the intervention group may be substantiated in a study with a larger sample size.

Table 1. Participant demographic data at time point 2

Characteristic	Category	COMPARISON GROUP: Frequency / Percentage (total n = 18)		INTERVENTION GROUP: Frequency / Percentage (total n = 17)	
Gender	Male	11	61.1%	6	35.3%
	Female	7	38.9%	11	64.7%
Age	18-24	1	5.6%	2	11.8%
	25-34	5	27.8%	5	29.4%
	35-44	4	22.2%	5	29.4%
	45-54	4	22.2%	1	5.9%
	55-64	3	16.7%	4	23.5%
	Over 64	1	5.6%	0	0%
Diagnosis duration	Less than 6 months	0	0%	1	5.9%
	6-12 months	2	11.1%	1	5.9%
	1-5 years	2	11.1%	2	11.8%
	5-10 years	2	11.1%	3	17.6%
	more than 10 years	12	66.7%	10	58.2%
Distance from city	Less than 25km	10	55.6%	9	52.9%
	25-50km	3	16.7%	2	11.8%
	50-100km	1	5.6%	1	5.9%
	Over 100km	4	22.2%	5	29.4%
Vic Ep Foundation (past 3 months)	Yes	1	5.6%	0	0%
	No	17	94.4%	17	100%

Conclusion

This study has provided encouragement to further explore how lifestyle self-management practices for people with epilepsy can improve their sense of well-being and increase their personal potential for controlling seizures through the recognition and management of seizure triggers.

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Contact

For more information :

Assoc Prof Karen-leigh Edward

SVPHM/ACU Research Unit

Tel: +61 3 9411 7338

Email: karen-leigh.edward@svha.org.au

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