

# NICM

The science of integrative medicine

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## PROJECT REPORT

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An educational intervention to improve health literacy and decision making among older Australians: a randomised controlled trial

## 2017 FINAL REPORT FOR THE IRT FOUNDATION

Professor Caroline Smith    NICM, Western Sydney University

Professor Esther Chang    School of Nursing and Midwifery, Western Sydney University

Dr Gisselle Gallego    School of Medicine, Notre Dame University

# Executive Summary

## Background

National policies seek to involve older Australian's in decisions regarding their care. To achieve this there is a need to help individuals with supporting self-care, and good decision making and to improve health literacy skills among older Australians. Our previous research with senior Australians found varying levels of health literacy skills. In particular we identified domains of health literacy that were problematic: (i) no matter how hard they tried they could not understand most health information and were confused when there was conflicting information, (ii) they were also not able to access health information when required, (iii) were frequently dependent on others to offer information, unable to advocate on their own behalf, and (iv) unable to find someone who can help them use the health care systems to address their health needs.

The aim of this study was to determine the effectiveness of a complementary medicine and therapies (CM) educational intervention to increase older adults' health literacy and decision making efficacy.

## Methods

We conducted a randomised controlled trial of a CM education intervention delivered online using a website or DVD plus booklet versus a control group (booklet only) to examine the effect on decision making efficacy, health literacy, perception of risk, and health-seeking behaviour following completion of the intervention at three weeks, and at two months follow up from trial entry. We recruited individuals aged over 55 years living in retirement villages and various community groups.

The intervention group received access to a DVD or a website, comprising of five modules covering: understanding evidence, finding and evaluating complementary medicine evidence, decision making, working with complementary medicine practitioners and monitoring your complementary medicine decisions. The control group received two printed booklets including summarised content from some of the material presented in the modules. The booklets were also made available to the intervention group. Participants were encouraged to pace their engagement with study materials over a three-week period.

Study outcomes of decision making self-efficacy (including confidence and being prepared for decision making), health literacy and health seeking behaviour were assessed when joining the study, at the end of the intervention and two months from initially joining the study.

## Results

Between July 2016 and January 2017, 153 individuals were randomised to the study, outcome data at the end of the intervention was available from 131 individuals. Twenty-two participants (14%) dropped out of the study. The numbers and the reasons given for drop out were similar between groups. Our sample comprised of 66% women, with a mean age of 76 years. Overall most participants reported having very good or good health, and the most common health problem was arthritis. Over 70% of participants reported current or previous CM use. Participants sourced their information about health mostly from their GPs. Participants in the intervention group used the internet and media as a source of information more often than the control group, and many participants used multiple devices.

Following completion of the intervention and at the two months follow up we found:

- The study cohort demonstrated a significant increase in participants' confidence with decision-making with a mean change in the score over time of 11.1 (SD 14.9,  $p=0.00$ ). For the website/DVD group there was a high mean change with decision self-efficacy score of 12.1 (SD 11.7,  $p=0.00$ ), and a mean change in the score 10.3 (SD 17.4,  $p=0.00$ ) for the booklet only group. At the 2 months follow up scores remained similar to those at the end of the intervention. There was no statistically significant difference between the delivery of the information using a DVD/website or a booklet mean difference in scores (MD) 3.9, 95% confidence interval (CI) -1.92 to 9.72  $p=0.19$ .
- The preparation for making a decision scale was evaluated only after the delivery of the intervention. The cohort displayed moderate levels of preparedness with making a decision. Scores were higher for the website/DVD group, although these did not reach statistical significance (MD 6.31, 95% CI -2.19 to 14.81,  $p=0.15$ ). At the two follow up there were no differences between groups.
- At the end of the intervention, the entire cohort demonstrated increases in health literacy. There were no significant differences

between the two groups, however two health literacy domains improved over time;

1. *Ability to find good information* MD 0.08 (SD 0.46),  $p=0.02$
2. *Reading and understanding health information* MD 0.07 (SD 0.43),  $p=0.03$

- At the two months follow up for the study cohort there were further improvements in health literacy, with significant increase in seven out of nine health literacy domains. There were greater improvements within the website/DVD, however there remained no differences between groups.
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- Overall the feedback from both study groups was positive, there were further changes in attitudes and evidence of changes to health seeking behaviour. The majority of participants described the resources as good or excellent. Seventy percent of participants agreed the resources would have been useful when making a decision about CM use. There were also changes in views of CM safety and effectiveness. At the end of the intervention there were significant changes in participants' views of some CM being less safe and effective. Amongst those in the website/DVD group over 70% had accessed websites, and almost 40% of participants across both groups had used research articles. At the end of the study over 30% had the opportunity to put into practice what they had learnt from the study.

## Discussion

The interventions led to significant improvements in participants' confidence with decision making, and health literacy. Although we may have been under-powered to demonstrate differences in study outcomes between the website/DVD and booklet formats, the significant changes in these outcomes within both groups over time suggest both formats were effective with delivering information that led to changes in health literacy, and feeling supported with health seeking behaviour.

Our sample had a greater representation of women, participants born in Australia, retired individuals and there was an under representation of people from an Aboriginal and Torres Strait Islander (ATSI) background compared with data from the 2011 Census. Therefore, our findings cannot be generalised more widely to all senior Australians. However, our recruitment strategy deliberately targeted individuals living independently in these settings.

We conclude that the materials developed are effective and useful and should now be made widely available to older Australians.

## Recommendations

- Recommendations for translation:
  - NICM at Western Sydney and the IRT Foundation to explore future opportunities for greater dissemination and access by senior Australians to the developed resources.
  - A two-page summary of findings report be distributed to study participants, participating retirement villages and clubs.
  - A follow up survey of this report and summary of findings to be undertaken with recipients to assess impact, usefulness, and utilisation of findings.
  - NICM to arrange access to the website by the community and to monitor access to online resources.
  - NICM to explore opportunities to provide additional case studies and ensure all materials remain current.
- Recommendations for further research arising directly from this project:
  - Undertake analysis of the unfunded nested qualitative study that explored in-depth study participants' views of the resources.
  - Consider future research that seeks greater representation of people from ATSI, low socio-economic status, culturally and linguistically diverse (CALD) backgrounds and geographically remote communities.
  - Undertake further research with partners to explore seniors' experiences of navigating the health care system in general

including conventional health and allied health services as well as CM, and an ability to access good information.

- Explore opportunities to undertake follow up with study participants in 12 months to examine if and how health seeking behaviour has been influenced by the resources.