

ALLIED HEALTH  
RESEARCH NEWS

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## 2019 Allied Health Research Forum

The allied health annual research forum was held on 9<sup>th</sup> May at Wantirna Health. The large audience met Victoria's recently appointed Chief Allied Health Officer, Donna Markham who provided an inspiring, big-picture view of allied health in the state. Donna spoke broadly about the importance of work force development, allied health representation at high level decision-making forums, as well as the attributes that she aspires to model and bring to her role. She fielded questions about research funding, communication and partnership with DHHS.

The standard of 3 minute presentations was very high and again showed the enthusiasm, diversity and quality of research projects being done by EH allied health clinicians. The judges had a difficult time deciding an overall winner, and congratulations go to Maria Van Namen who was the recipient of the Best Presentation Award for her presentation on the effectiveness of lifestyle interventions for metabolic syndrome. Lina Breik took out the People's Choice with her work on Intensive Care Access redesign. See page 2 to read their winning presentations.

Everyone who entered is congratulated on their research work and presentation. Thanks to Anita Wilton, David Taylor and Gayle Smith for supporting the event.



Top: Anita Wilton with guest speaker Donna Markham,

Centre: Maria Van Namen receives best presentation award, with David Taylor and Anita Wilton

Below: Lina Breik, winner of the 'People's Choice' award

### A Research Newsletter for Allied Health Clinicians

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# Winning work from the 2018 Allied Health Research Forum

Congratulations to Maria van Namen and Lina Breik on receiving awards at this year’s Allied Health Research Forum. The transcripts/presentation notes provide an insight into to the content of their presentation, but also highlight different approaches to the 3 minute presentation format and use of a full script (Maria) vs guiding notes (Lina). Both, however, take listeners through a clear story, which is the crucial element to a good 3 minute presentation.

## Maria Van Namen: Judges’ Award

**25% of adults worldwide have metabolic syndrome.** If we go by these statistics, this means in this room around 20 of you would have metabolic syndrome. For those people who have metabolic syndrome, this means you have 5 times the risk of developing diabetes, and double the risk of having a heart attack or stroke.

**So what is metabolic syndrome?** It is a cluster of risk factors including increased waist circumference, high blood pressure, high blood glucose, high triglyceride levels and low HDL cholesterol. When someone presents with 3 of these risk factors they can be diagnosed with metabolic syndrome.

**With the prevalence of this disease being so high and the health risks so great, the implications to our community are huge.** Not only does it impact on our health and therefore the quality of our lives, but it also contributes substantial costs to our healthcare system. So can anything be done to lessen the impact of metabolic syndrome?

**Our systematic review looked at the effect of a multi-faceted lifestyle intervention, including dietary intervention and supervised exercise on the risk factors for metabolic syndrome.**

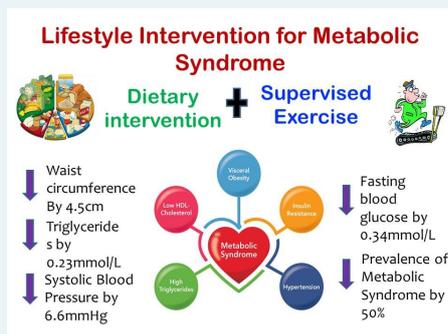
The review identified 15 articles, which reported data from 10 randomised controlled trials, including 1160 participants and compared lifestyle intervention programs to usual care for metabolic syndrome. Interventions ranged from 4 weeks to 1 year in duration, and the intensity varied from once a week, to daily supervised sessions.

Our meta-analysis found that with lifestyle intervention there were significant improvements in all but one of the risk factors for metabolic syndrome. Waist circumference was reduced by an average of 4.5cm, systolic BP was reduced by 6.6mmHg. Triglyceride levels were reduced by 0.23mmol/L, and fasting glucose levels were also decreased by 0.34mmol/L. All of these results were found to be clinically meaningful in terms of reducing risks associated with metabolic syndrome.

Prevalence of metabolic syndrome was reduced by 50% in the intervention groups compared to control group participants. Improvements in quality of life were also reported following the intervention period.

**The rising incidence of life-style related illness, as well as our ageing population means that healthcare costs will continue to increase. Preventative healthcare needs to be the way of the future.**

This research supports the introduction of lifestyle intervention programs for people with metabolic syndrome, in order to improve health outcomes in our community and reduce costs to our healthcare system.



## Lina Breik: People’s Choice Award

**What's the problem and how far are we from our goal?**

What do we do when there is no bed in ICU available, and 6 patients need it?

50% of occupied ICU beds at 4pm are wardable patients; our goal is to have this number at less than 20%.

**Why is the problem important?**

If patient flow is not optimal, then our mission to provide great care everywhere, every time in the most appropriate setting can’t happen.

**After a series of evidence based diagnostic tools, the problem seemed to come down to a lack of four things:**

- VISIBILITY
- AUTHORISED PROCESSES
- WORKFORCE
- TRUST

Bed status and access are a forever challenge where we will always feel stretched. But we can put in processes and develop a can-do access culture to result in healthy organised stretching (i.e. like Yoga!)

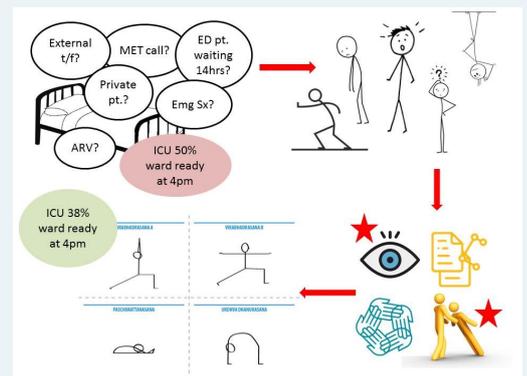
**What has been implemented now?**

-Improved visibility to the EH integrated access unit (IAU) of who is knocking on ICU doors

-Standardised documentation to communicate the status of patients who are “ward ready” between ICU and IAU

-Improved trust between ICU and the EH IAU

Now, we are down to 40% of occupied ICU beds at 4pm being wardable patients!



# “Stepping into Research”

## Allied Health Research Training Scheme

Welcome and congratulations to 2019’s class of Stepping into Research. Eleven aspiring researchers have been successful in their application and will be embarking on a systematic review in the coming months.

This program is a unique opportunity offered by the EH Allied Health Research Office and has seen 36 clinicians publish their work and 6 go on to higher degree studies.

The quality of the applications this year was excellent, and we have participants from a variety of professions and programs with a diverse range of topics. Our mental health programs have not had a high level of representation in Stepping into Research in the past, so It is particularly pleasing to welcome Sarah Brumley from CYMHS. We hope that Sarah’s participation this year paves the way for others to follow!

This year we are also excited to have two participants from medical imaging joining the program, Christine Chua and Claire Farell. This year Amy Dennett was appointed as our new Research & Translation Fellow, with a component of her role being to support the development of research in the allied health sciences. The inclusion of two participants from medical imaging in Stepping into Research is a welcome development in this area, and extend a warm welcome to Claire and Christine.

We look forward to hearing the results from participants’ projects at next year’s AH research forum.

Participant	Topic of interest
Bianca Ukovic (Dietetics)	Malnutrition in hospital inpatients
Christine Chua (Medical Imaging)	Has the use of Digital Radiography for chest x-rays, resulted in patient dose reduction compared to Computed Radiography (CR) or traditional film?
Claire Farell (Medical Imaging)	Does exercise affect the uptake time in Breast Sentinel Node Imaging?
Dale Miles (Speech Pathology)	The effect of cough reflex testing on incidence of pneumonia
Jacoba Reimert (Physiotherapy)	Do hip precautions reduce dislocation post total hip joint replacement?
Jennifer Barnes (Occupational Therapy)	Non-pharmacological interventions in the management of delirium
Kirsty Hearn (Physiotherapy)	Does the inclusion of a supported transition component at the end of group rehabilitation programs improve patient activity levels at follow up?
Melissa Prause (Physiotherapy)	The effectiveness of tele-rehabilitation programs in allied health
Morica Tran (Podiatry)	Non-weight bearing exercise and wound healing in patients with Diabetic foot ulcer
Sarah Brumley (Occupational Therapy)	Closed group therapy as an adjunct to 1:1 therapy in teens with mental health disorders
Sophie Broadstreet (Speech Pathology)	The effectiveness of patient reported outcome measures for the detection of dysphagia

## Family-assisted Therapy for Older People Transitioning from Hospital to the Community

Older people transitioning from hospital to the community are often inactive, needing assistance to walk and complete daily tasks. Physiotherapy services in transition care programs are limited and can't always provide the intensity of therapy that these people require.

Physiotherapist **Kate Lawler** has recently completed her PhD thesis that describes a program of research conducted in the transition care setting at Eastern Health. Kate investigated the role of training family members to augment usual-care physiotherapy, an approach referred to as family-assisted therapy.

Kate began her research with a systematic review and meta-analysis investigated whether family-assisted therapy for patients receiving allied health care improves patient outcomes. Twenty-nine trials were included, most about speech pathology interventions for children. Only two trials studied therapy for adults and two studied physiotherapy interventions, leaving a gap in evidence about family-assisted therapy to augment physiotherapy for older adults.

The next step was to find out whether family assisted therapy is an acceptable idea for patients, carer and health care providers. Qualitative methods were used to explore the views of patients, families, physiotherapists and hospital consumers regarding the

acceptability of introducing family-assisted therapy into the transitional care setting. Participants expressed that family-assisted therapy might improve patient outcomes, should be simple and individualised, and may impact positively or negatively on people and relationships. This led to a small pilot study involving eight participants that informed the development of a larger trial protocol.

Finally a randomised controlled trial was conducted involving 35 patients and 40 family members. Patients in the transition care program (n=35) were randomised to receive either usual physiotherapy care, or usual care plus therapy activities with family (at least three times per week) with once weekly physiotherapy support.

Patients receiving family-assisted therapy almost doubled their number of daily steps, with an

average of 944 additional steps compared to the control group. They also had a significant reduction in activity limitation with no increase in caregiver burden. It is also likely that the rate of falls reduced in the intervention group (incidence rate ratio 0.22, 95% CI 0.04 to 1.20).

Interviews conducted with participants in the experimental group suggested that the intervention provided a strong sense of family empowerment from participating in family-assisted therapy.

In conclusion, family-assisted therapy is likely a safe and feasible intervention that may lead to improved outcomes for older people transitioning from hospital to the community.

Many thanks to the Transition Care Team at Eastern health for making this research possible.



## Your pathway to Ethics Approval at Eastern Health

Ethics approval is a headache. All that paperwork...a waste of trees. Enough to put anyone off doing research. Right?

While it might seem like a hurdle, the ethics process is important. The primary purpose of the Eastern Health Ethics Committee is to protect people who are involved in research. But it is also there to help researchers by having people with a number of different perspectives review project proposals. The committee provides feedback which helps to get the design right before a project gets underway. Furthermore, if you are considering submitting your work to a journal, evidence of ethical review is often a requirement for consideration for publication.

The ethical approval process at Eastern Health has three different levels, depending on the level of risk associated with your project. Choosing the right level of approval will save you a lot of time and effort. All projects, even those involving no 'participants' such as clinical audits, should at least be registered with the Ethics Committee (described here as Level 1). Clinicians wanting to conduct projects involving patients or staff as participants should consider whether their project can be considered "low risk" or whether it requires consideration by the full ethics committee.

### Level of Ethical Approval

#### Level 3: Full Ethics Application using the Human Research Ethics Application (HREA)

Projects that do not meet the criteria for low risk application require full ethical approval, submitted using the HREA. In Victoria the HREA consists of 3 components: The HREA online form, a site-specific form, and the Victorian specific module. These forms are all submitted using the online platform Ethics review Manager (ERM). These projects are reviewed by the full ethics committee, which meets once a month.

Further information on both low risk and the full application process can be found on the ethics webpage at:

<https://www.easternhealth.org.au/research-ethics/guidance>

#### Level 2: Low Risk Ethics Application

Low risk or negligible risk projects involve no foreseeable risk of harm or discomfort. Any foreseeable risk is no more than inconvenience. A separate form is available for low risk projects and these projects are considered by a dedicated "low risk subcommittee" that meets fortnightly.

For further information, visit:

[www.easternhealth.org.au/images/research/LNR\\_Guidance\\_August\\_2017.pdf](http://www.easternhealth.org.au/images/research/LNR_Guidance_August_2017.pdf)

#### Level 1: Registration of quality assurance and clinical audit activities

A self-administered checklist is available on the EH Research and Ethics webpage to determine if their project needs ethics review. If not, a simple registration form should be completed and submitted to the office of research and ethics.

For further information, visit:

[www.easternhealth.org.au/research/ethics/clinicalaudits.aspx](http://www.easternhealth.org.au/research/ethics/clinicalaudits.aspx)

## MiHIP Project Update

The NHMRC funded project Motivational Interviewing to improve walking after hip fracture (MIHip) is nearing commencement. This randomised controlled trial will recruit 270 patients after hip fracture, with half to receive motivational interviewing aimed at increasing physical activity.

Rebecca Morris has been appointed to the role of Trial Coordinator, and will commence at Eastern Health on the 29th July.

Thank you also to all of the allied health clinicians who expressed interest in being motivational interviewers, outcome assessors

or providers of the dietetics intervention to be delivered to the control group. We now have sufficient staff for these roles for the first phase of the project.

Recruitment for the trial is expected to commence at our community rehabilitation sites in September.

## Allied Health Research Achievements

### Publications

#### Judi Porter

Huschtscha Z, Porter J, Costa RJS. (In press) Letter to the Editor: Comments and future directions arising from "The Impact of Dairy Protein Intake on Muscle Mass, Muscle Strength, and Physical Performance in Middle-Aged to Older Adults with or without Existing Sarcopenia". *Advances in Nutrition*  
Porter J, Bristow C, Charlton C, Tapsell L, Choi T. Changes in nutrition & dietetic research: a content analysis of the past decade of Dietitians Association of Australia conferences. *Nutrition & Dietetics*.

#### Kate Lawler (Physiotherapy)

Lawler K, Taylor NF, Shields N. (In press). Family-assisted therapy empowered families of older people transitioning from hospital to the community: a qualitative. *Journal of Physiotherapy*

Lawler K, Shields N, Taylor NF. (In press). Training family to assist with physiotherapy for older people transitioning from hospital to the community: a pilot randomised controlled trial. *Clinical Rehabilitation*

#### David Snowdon (Physiotherapy)

Snowden DA, Taylor NF, Cooke S, Scroggie G, Lawler K. (In press). Physiotherapists prefer clinical supervision to focus on professional skill development: A qualitative study. *Physiotherapy Canada*

Snowdon DA, Leggat SG, Harding KE, Hau R, Scroggie G, Taylor NF. (In press). Direct supervision of physiotherapists improves compliance with clinical practice guidelines for patients with hip fracture: a controlled before-and-after study. *Disability and Rehabilitation*

#### Allied Health Clinical Research Office

Taylor NF, Lawler K, Brusco NK, Peiris CL, Harding KE, Scroggie GD, Boyd JN, Wilton AM, Coker F, Ferraro JG, Shields N. (In press). Saturday allied health services for Geriatric Evaluation and Management: a controlled before-and-after trial. *Australasian Journal on Ageing*

Harding K, Snowdon D, Lewis A, Leggat S, Kent B, Watts J, Taylor NF. (2019). Staff perspectives of a model of access and triage for reducing waiting time in ambulatory services: A qualitative study. *BMC Health Services Research*.(Epub ahead of print)

#### Lyndon Hawke (Physiotherap, CRP)

Hawke LJ, Shields N, Dowsey MM, Choong PFM, Taylor NF. (In press). Effectiveness of behavioural interventions on physical activity levels after hip or knee joint replacement: a systematic review. *Disability and Rehabilitation*

#### Rebecca Nicks (Occupational Therapy)

Goonan R, Nicks R, Jolliffe L, Pritchard E. (2019) Implementation of a Person-Centred Activity Program on a Sub-Acute Inpatient Dementia Ward. *Physical & Occupational Therapy In Geriatrics*. 19:1-12.

#### Dina Progrebnoy (Physiotherapy)

Pogrebnoy D, Dennett A. (in press) Exercise programs delivered according to guidelines improve mobility in people with stroke: A Systematic Review and meta-analysis. *Archives of Physical Medicine and Rehabilitation*

## Eastern Health Allied Health Research Committee

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