



HEART RESEARCH CENTRE NEWSLETTER

ISSUE 4 | 2010

Paving new paths: depression in stroke patients

Senior Research Fellow, Dr Alyna Turner, is currently investigating depression in stroke patients. Earlier this year, she successfully acquired funding from the National Stroke Foundation to conduct a study examining the effectiveness of computerised screening for depression symptoms in post-stroke patients. The study is now taking place in hospitals and other stroke services in Newcastle.

Participants are screened for depression using a simple questionnaire delivered

via a touch screen. If patients score above a certain level, their medical specialists are informed. The study aims to assess whether specialists receiving feedback are more able than others to detect depression in patients and subsequently refer them for appropriate management.

The study will shortly be extended to The Royal Melbourne Hospital, with Heart Research Centre staff working in collaboration with the team at the hospital's stroke unit.

In another project, Dr Turner will liaise with the Centre's Project Officer for Aboriginal Programs, Ms Nell Angus, to adapt the screening process to meet the needs of Aboriginal people experiencing a chronic illness. Many other groups, including those with vision impairments, language difficulties or cognitive changes post-stroke may also benefit from the use of computerised depression screening processes such as the touch screen, which can be customised to suit specific patient needs.



beyondblue supports the Centre to promote Indigenous heart health

The Heart Research Centre was recently awarded a major grant of \$200,000 from the national depression initiative *beyondblue* to conduct a project aimed at increasing effective health services for Aboriginal people experiencing depression and anxiety in Melbourne. This is a landmark occasion, since this is one of the few Indigenous community-based projects *beyondblue* has funded.

The project will be conducted in collaboration with the Wurundjeri Tribe Land and Compensation Cultural Heritage Council, the General Practice and Primary Health Care Academic Centre at The University of Melbourne and The Royal Melbourne Hospital.

Chronic disease and poor mental health are among the most significant contributors to the burden of disease in Aboriginal communities. There is considerable room to improve services in these areas.

The Centre is keen to establish rich and long-lasting relationships with the Aboriginal communities and organisations it will work with over the course of this project. The communities will be the ultimate drivers of the project's success.



Left to right: Ms Leonie Young, CEO *beyondblue*, Nell Angus and Dr Barbara Murphy, Heart Research Centre, with the Hon Lisa Neville MP.

Women and heart disease



In the past it was thought that coronary heart disease (CHD) was much less common in women than in men. This indeed did apply to women under 65 years. While many men developed CHD in their fifties and sixties, the disease usually occurred in women over 65 years.

Cholesterol

Under the age of 65, men are more likely to have a high total and LDL cholesterol level in their blood (the LDL is the bad cholesterol). Women have a higher HDL cholesterol than men (HDL is the good cholesterol). These differences are probably due to different hormonal levels which affect the levels of cholesterol types in the blood. Thus, in women, there is partial protection from cholesterol deposits in the arteries until after the menopause. After the menopause, women usually have higher LDL cholesterol than men. This disadvantage in older women continues until life is complete. Women live longer than men and hence have "old age" in which to present with CHD.

Blood pressure

In industrialised societies, there is a pattern of rising blood pressure (hypertension) related to ageing. The large pipes (arteries) become more rigid. The small pipes (arterioles) become less flexible and slow the flow of blood from

the arteries, while pushing the arterial blood pressure higher. Older age affects the level of blood pressure.

Smoking

In the past, as many as 70% to 80% of men and as few as 5% to 10% of women were smokers. This has changed. Only about 20% of men and 20% of women now smoke. Smoking contributes enormously to death rates.

Exercise

Significant physical effort of work has become less with industrialisation. It has been replaced by mechanical handling. Some studies of energy use have shown that housework is more energetic than production line work. Leisure time physical activity has become an enjoyable diversion for both men and women who retain or take up pleasurable forms of exercise. Such activities increase life expectancy and delay the onset of CHD.

Overweight

Obesity, overweight and diabetes run hand in hand with CHD in older people, both men and women. This progressive cluster of risks appears to be increasing with the free availability of high caloric food and fatty food.

Causes of death

What we appear to have is a pattern of increased life expectancy (at least until now), with ageing being coupled with later onset of CHD – particularly in older women. Do we really know all of the above? Does it mean that there is a progressive increase in death rates from CHD in women or is the increase in part due to errors in recording cause of death? Cause of death is based on certification of the cause recorded by the doctor who signs the death certificate.

The commonest pattern of living for aged women in our society is that

the older female member lives with younger family members or in a nursing home. The aged, respected and loved family member passes quietly, often at night, and is noted to be in a peaceful state. She has died quietly and had been unaware of any new symptoms. Why and how did she die? She died because she was old and her time had come. How did she die is more difficult to answer, except to say that her heart stopped beating. Why did it stop beating? The partial answer is that it stopped because it was old and weak and something acted as a silent stressor. In the International Classification of Diseases there used to be a diagnosis of "senility without dementia". That meant she could be certified as dying from "old age". I have never seen a death certificate using this category as the cause of death. It is easier to certify that the cause of death was a "coronary heart attack (myocardial infarction)".

In the past autopsies were commonly performed if the diagnosis was not clear. Autopsy findings showed that heart attacks were less common than silent urinary tract infections, silent pneumonia, or deep vein thrombosis (DVT) with a blood clot passing to the lungs or nothing found to have specifically led to death. One recent American study found that although aged women who died in a nursing home were certified as having a myocardial infarction or heart failure, autopsy showed that most had no myocardial infarct or heart failure; they had the conditions listed above. Even without the bolstering effect of certification of cause of death, CHD is as common in women as it is in men but generally presents as illness 10 years later.

Dr Alan Goble
Cardiology Consultant

Alison Beauchamp



SNAP SHOT

Prior to commencing at the Heart Research Centre, Alison Beauchamp had extensive experience working as a critical care and cardiac nurse both in Australia and overseas. Most recently, she conducted a study at the Department of Epidemiology and Preventive Medicine at Monash University for her PhD concerning the impact of socio-economic factors on patients with heart disease.

Alison acknowledges that when she was nursing she found it frustrating to see the same patients seeking treatment for conditions that had often been brought on by lifestyle factors. She wanted to see the 'whole story' of her cardiac patients, so that she might help them change their behaviour and revitalise their lives. This led to her work in cardiac rehabilitation.

Alison has had a long-term involvement with the Heart Research Centre, particularly in our rehabilitation activities. She applauds the Centre for its adeptness in translating research into practice. She says: "It's great for health professionals to have their real-world practices validated, and for them to learn how patients perceive their illness and recovery. This can lead to great outcomes, not only for patients but also for the professionals themselves".

After completing her PhD, Alison hopes to obtain a post-doctoral fellowship to carry out research at the Heart Research Centre. She lives in West Gippsland with her husband and son.

Bendigo Rural Study continues to be a collaborative effort

Our donors will have read about the Bendigo Cardiac Study, supported by *beyondblue*, in our previous newsletter issues.

The Centre's Principal Research Fellow, Dr Barbara Murphy, is leading the study. She is working with Professor Fiona Judd, Department of Psychiatry at University of Melbourne and Director of Women's Mental Health at the Royal Women's Hospital, and Professor John Humphries, Director of the Department of Rural Health at Monash University in Bendigo. Research Fellow, Ms Deborah Ludeman, has co-ordinated the project. The team is also collaborating with two Bendigo-based cardiologists, Dr John Edington and Dr Anthony Jackson from Bendigo Health and St John of God respectively.

While depression in cardiac patients generally is quite well understood, much less has been done to investigate depression in rural patients. The two hospitals involved in this study serve the Loddon Mallee, which is the largest of the health service areas in Victoria. The

level of mental health services available in this area is not nearly as high as in metropolitan Melbourne. Further, some people have difficulties accessing services, as well as other compounding factors relating to the burden of regional living. Drought, for example, can contribute to patients' experience of depression.

A total of 160 patients were recruited to the study. They were screened for depression in hospital and interviewed about their past mental health, and specifically any past history of depression. Participants were also interviewed at the two- and six- month marks.

Of the 160 patients taking part, 70 patients also underwent extensive interviews in their homes during the first two to three months following hospital discharge.

Participants who described some depressive symptoms experienced what Dr Murphy and the team define as an 'adjustment' period, a strong emotional

response to a major life event. For these patients the depressive symptoms tend to resolve without intervention. Others experienced a persistence of symptoms, suggesting increased likelihood of depression.

This collaborative effort with the University of Melbourne and Monash University represents a valuable step toward understanding the effects of heart disease on Australia's rural population. Dr Murphy and the team are currently analysing the data. They are eager to present their findings with a view to developing interventions to help rural and regional cardiac patients experiencing depressive symptoms.

The Heart Research Centre looks forward to collaborating further with all of those involved to translate quality research into effective practice once again.

Training programs aid GPs and other health professionals



CDSM training program participants

As many of our donors know, the Centre runs a range of highly regarded training programs for health professionals throughout Victoria and Australia. These include our renowned Five Day Training Program, as well as the newly developed chronic disease self-management (CDSM) program.

This program was initiated in 2008,

combining principles of motivational interviewing (MI) and cognitive behaviour therapy (CBT). It aims to assist health professionals to facilitate the recovery of their cardiac patients. Following the success of the first CDSM training programs, several organisations have approached the Centre to deliver specially tailored training sessions for them.

Some recent CDSM programs catered directly for general practitioners (GPs). Conducted in collaboration with GP Victoria, they focused directly on providing professional support for GPs in MI and CBT.

Collaborative relationships are encouraged between patient and clinician. This approach has been shown to produce effective results in helping patients gain a sense of autonomy and control over their illness, allowing them to make a positive recovery. Patients are encouraged to come up with their

own solutions, including setting realistic and achievable goals, rather than conforming to a traditional medical model that places the clinician in an elevated position to prescribe advice in favour of engaging in a dialogue. Clinicians learn to view things from the patient's perspective and to recognise that behaviour change is a process rather than something that takes place 'in a moment'.

Chronic disease places a significant burden on the healthcare system. It also makes specific demands on both patients and health professionals. These demands, in turn, point to the need for special relationships between those who provide and receive care. Chronic disease patients do not want to be readmitted to hospital, and the healthcare system often experiences strain when this happens. Chronic disease self-management helps to improve conditions for everyone involved.

Centre's research presented at recent conferences

Heart Research Centre staff were well represented at recent scientific meetings of the Cardiac Society of Australia and New Zealand (CSANZ) in Adelaide and Australian Cardiovascular Health and Rehabilitation Association (ACRA) in Canberra.

Principal Research Fellow, Dr Barbara Murphy, gave an oral presentation at the CSANZ conference about her 12-year follow-up study of a cohort of 170 female cardiac patients admitted to three Melbourne hospitals 12 years ago. At the time of the original study, participants underwent exploratory interviews in hospital with further interviews two months, four months and one year later. Patients completed the Hospital Anxiety and Depression Scale

(HADS) which measured their levels of anxiety and depression.

The 12-year follow-up study was designed to assess whether mild in-hospital depression is a better predictor of mortality than moderate to severe depression. The results of the study supported this hypothesis, demonstrating a strong, statistically significant correlation between these milder depressive symptoms and mortality.

At the ACRA conference, Dr Marian Worcester, the Centre's Director, presented findings of the Centre's trial of the effectiveness of a cognitive behavioural intervention to reduce risk and improve the management of



ACRA Best New Research Award recipient, Dr Marian Worcester, with Dr Steve Bunker.

depression in cardiac patients. Her presentation, delivered on behalf of Dr Rosemary Higgins, won the Best New Research Award.

Bequests: valuable gifts contributing to the Centre's research

Over the years, charitable bequests from Heart Research Centre donors have made it possible for us to make a significant contribution to improving the quality of life of those who suffer from cardiac illness, as well as preventing its onset.

How are bequests used?

Bequests are vital to funding the continued work of the Heart Research Centre. These gifts, which are made in a donor's Will, help the Centre to embark on new areas of research.



The Centre's Director, Dr Marian Worcester, said: 'Without funding from a significant bequest received several years ago, we would not have been able to embark on a major study of the impact of heart disease on women – a study which led to several published papers and widespread dissemination of findings to nurses and other health professionals. This was the largest study about women with heart disease to have been undertaken in Australia, and one of few such investigations in the world.

We have recently extended this study to spouses of cardiac patients, with a pilot study currently in progress, supported by a recent small bequest. Major funding is now being sought to continue this vital research in a larger study.'

One reason why bequests play such an important role in the Centre's research concerns funding. The Heart Research Centre relies heavily on charitable contributions for funding to initiate pilot studies and fledgling research programs. The results produced from these small studies provide tangible evidence of how further research in certain areas may lead to more significant findings. Major funding from bodies such as the National Health and Medical Research Council is far more likely to be awarded if results of pilot studies are used to justify the application.

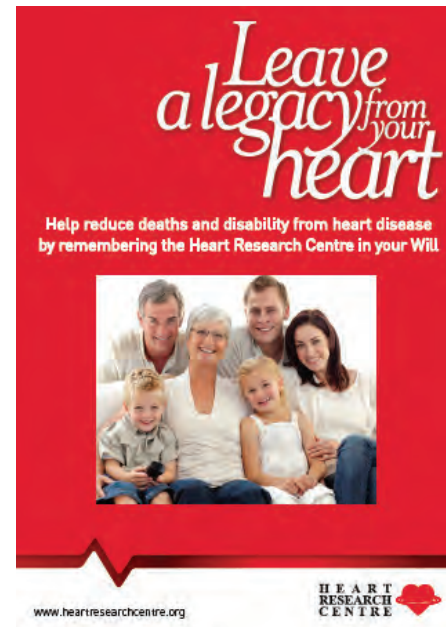
How might future bequests help the Heart Research Centre?

Future bequests will enable the Centre to initiate research which would not otherwise be possible. For example, our past research has shown that people living in rural and regional areas of Victoria have worse cardiovascular disease risk factors than their metropolitan counterparts. We plan to undertake a follow-up study of our 1992 Rural Cardiovascular Risk Factor Survey to investigate which risk factors measured in 1992 are associated with earlier deaths among survey participants.

How can donors make bequests?

Once you have made provision for family and friends in your Will, you may wish to support a charity by leaving a bequest. It is easy to make a bequest to a charity, although many people believe it to be a complicated and lengthy process. One option is to add a simple Codicil to your existing Will. If you wish to support our heart research by leaving the Heart Research Centre a bequest, talk to your solicitor. Contact us and we will be happy to forward you a copy of our new bequest brochure.

Our new bequest brochure



Leaving a bequest after providing for loved ones in your Will can be an immensely gratifying experience. If you are considering leaving a bequest, do let us know. We can discuss it with you and find out which areas of research you wish to support. It also enables us to extend our warm thanks for your generosity.

**HEART
RESEARCH
CENTRE**



Heart Research Centre

Postal Address:

PO Box 2137
The Royal Melbourne Hospital
VIC 3050

Telephone: (03) 9326 8544

Facsimile: (03) 9326 5066

Email: heart@medicine.unimelb.edu.au

Website: www.heartresearchcentre.org

ACN 060 479 763

ABN 87 267 901 425

A company limited by guarantee