



HEART RESEARCH CENTRE NEWSLETTER

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Grant awarded for study into transient ischaemic attacks



Above: Dr Alyna Turner
Senior Research Fellow

The Heart Research Centre was recently awarded a grant by the Helen Macpherson Smith Trust to carry out a project in collaboration with the Royal Melbourne Hospital's Neurosciences Department. In conducting the project, entitled "Anxiety and depression following a transient ischaemic attack (TIA)", Dr Alyna Turner, Senior Research Fellow, will work closely with Louise Weir, Australia's first stroke nurse practitioner. Dr Turner said: "We decided to do this study because people who experience TIA can be a forgotten group, particularly when it comes to their emotional health."

What is a TIA?

A TIA occurs when there is a temporary restriction in the blood supply to the brain, causing the same symptoms as are seen when someone has a stroke, such as numbness or weakness in the face or

limbs, trouble speaking or understanding, blurred or poor vision, or loss of balance. Unlike many strokes, however, these symptoms of TIA are temporary.

TIAs are a known warning sign of impending stroke. It is therefore important that people experiencing a TIA receive urgent medical attention. Dr Turner said: "It is also important that people do what they can to reduce their risk of stroke, such as by taking prescribed medications or undergoing certain medical procedures. As with heart disease and stroke, treatment for TIA includes modifying risk factors, such as stopping smoking, increasing physical activity and improving dietary habits".

What have anxiety and depression got to do with TIAs?

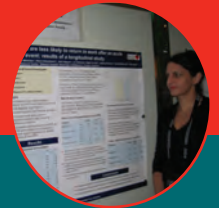
It is well known that anxiety and depression following stroke or heart attack are common and can have a negative impact on recovery. According to Dr Turner: "Less is known, unfortunately, about emotional recovery after TIA. Past research suggests that anxiety and depression are also common following TIA. However, more work is needed, particularly in Australia. Those with chronic health problems who have depression are less likely to follow treatment recommendations. Failure to do so among TIA patients is a concern, since non-adherence with advice can

increase the risk of future events, especially stroke."

What will the project involve?

About 115 people attending the TIA clinic will be interviewed following their medical appointment. Satisfaction with the care they have received will be explored. Depression and anxiety symptoms will be measured using a computerised screening system that Dr Turner has previously trialled with stroke patients. Participants will also be asked what they thought about the computer screening system. All patients will be telephoned after three months to see how well they have recovered physically and emotionally, and whether they have been satisfied with any treatment received since the clinic appointment.

Results from this research will be used to improve the clinical management of patients experiencing TIA. Findings should also help health workers to identify emotional distress more accurately among TIA patients, so that such patients receive appropriate care for their emotional, as well as their physical health.



Impact of stroke upon patients and families



In an earlier newsletter, Dr Alan Goble discussed the prevention of stroke. This article describes the impact of stroke upon patients and their families.

Cardiovascular disease includes both coronary heart disease and stroke. About 60,000 new and recurrent strokes occur in Australia annually. Stroke is the second commonest cause of death in the world. Risk factors for stroke are very similar to those for heart disease including smoking, obesity, physical inactivity, high cholesterol, diabetes and high blood pressure.

Stroke is also a leading cause of chronic disability. The nature and extent of disabilities depend on the location and size of the stroke. Common problems include paralysis or weakness in the leg or arm, inability to speak properly, cognitive difficulties such as problems remembering things, trouble swallowing and perceptual or visual problems.

The occurrence of a stroke is nearly always sudden, unexpected and devastating. However, many people experience a transient ischaemic attack (TIA) (see page 1) some time before their stroke. TIA is a warning sign of possible stroke in the future. The symptoms of a TIA are similar to those of a stroke but are transient and leave no permanent disability. When stroke occurs, it is vital for the patient to be admitted to hospital swiftly. Reperfusion may be undertaken

in certain patients to limit the damage caused by their stroke.

Stroke patients are cared for by a multidisciplinary team of health professionals including neurologists, physiotherapists, occupational therapists, speech pathologists, social workers and neuropsychologists. Their input depends upon the particular problems the patient is experiencing.

Some stroke patients may make a good recovery and go home without any support. However, most patients need some assistance. Each patient is carefully assessed. Equipment may be needed or help with showering, dressing and meals. Attendance at a rehabilitation program is commonly recommended, either as a day patient or inpatient. More severe strokes may require referral for residential care.

The emotional impact of a stroke is often greater than its physical effects. Anger, anxiety, frustration and a depressed mood are normal responses to a traumatic event such as stroke. Mood swings and outbursts of crying are not uncommon. Depressive symptoms after stroke are associated with the enormous sense of loss felt by the patient, whether loss of physical functioning and mobility, the ability to resume work or leisure activities, and loss of usual roles within the family. Returning to work can be impeded by physical disability, lack of motivation, fatigue, or lack of concentration or memory. For some, part-time work or a change of job may be possible. Loss of independence is especially frustrating for patients.

A third of stroke patients experience depression. Depression can often go unrecognised because stroke and depression share many symptoms including tearfulness, poor memory and mood changes. If undiagnosed or poorly

managed, depression can have an adverse impact on functional recovery and quality of life.

Stroke also significantly affects the survivor's spouse. The spouse is usually the primary carer and often needs to take over roles such as managing the household finances. It is not uncommon for spouses to feel a sense of guilt, fearing they may have caused or contributed to the stroke. They often experience depression, grief and resentment about changes to their lives following the stroke. These are normal feelings and reactions. Sexual relations may cease because of the patient's physical limitations, side effects of medications, lack of desire or fear that sex might trigger another stroke.

Stroke patients and their spouses are encouraged to discuss their feelings with health professionals, trusted friends and family members. Health professionals can help survivors to be as active and independent as possible. Community centres providing leisure activities and support groups can also be explored. Stroke support groups are similar to cardiac rehabilitation programs. They provide an opportunity to share experiences, offer emotional support and share knowledge about available services and information.

Recovering from stroke is normally a long process. In most cases, the greatest gains occur in the first two to six months but slow improvement can occur for several years. The recovery time and capacity for rehabilitation are different for each person. With more severe strokes, the recovery process is slower and longer. However, some stroke survivors make considerable gains through persistence, a positive attitude and a supportive family.

Dr Marian Worcester
Director

Centre's success at recent conferences



Above: Dr Rosemary Higgins
Senior Research Fellow

Members of the Heart Research Centre's research team recently attended conferences around Australia and overseas, aiming to keep abreast of leading research, promote the Centre's findings and build new relationships with researchers and practitioners.

Senior Research Fellow, Dr Rosemary Higgins, attended the **Australian Cardiovascular Health and Rehabilitation Association annual conference** held in Perth during August. Her presentation highlighted "Promising practices in cardiac rehabilitation for Aboriginal people", for which she was awarded the Best New Research award. Dr Higgins also presented the Centre's evaluation of an online program assisting health professionals in facilitating chronic disease self-management (CDSM) and facilitated two workshops.

Dr Marian Worcester, Dr Alan Goble and Dr Barbara Murphy recently attended the meeting of the **Cardiac Society of Australia and New Zealand**, also held in Perth. The conference provided a good opportunity for networking with cardiologists, cardiac surgeons and others to discuss the Centre's heart research.

Dr Murphy presented two papers in separate oral addresses at the conference. One of these presentations, entitled "Depressed cardiac patients improve with group cognitive behaviour therapy: results of a randomised controlled trial," is described on the opposite page. A second paper about "High rates of anxiety and depression in young cardiac patients" brought attention to circumstances in which younger patients (those aged 55 and below) are at increased risk of early and ongoing mood disorder after an acute cardiac event.

Dr Murphy and Dr Worcester travelled to Paris to the **European Society of Cardiology (ESC) congress** where Dr Murphy presented an oral paper and a poster. She was interviewed for the ESC Congress News about her paper concerning the above trial.

With the Centre's research now including a greater emphasis upon stroke, it was pleasing that Senior Research Fellow, Dr Alyna Turner, was selected to present her research at the **22nd Stroke Society of Australasia annual scientific meeting** in Adelaide, which focused on "Challenges in the new millennium: prevention, thrombolysis and repair".

Dr Turner delivered an oral presentation about the "Impact of routine electronic screening and feedback on depression symptoms in stroke". This research was based on a pilot randomised controlled trial. She also offered two poster presentations, focusing respectively on "Depression screening in stroke patients: a comparison of alternative measures" and the "Feasibility of self-assisted computer screening of depression symptoms in stroke patients".

Each of these recent conferences offered the Centre's researchers invaluable networking opportunities. Some of these meetings led to exciting discussions about future collaborations to develop new research to help prevent cardiovascular disease.

Below: Dr Alyna Turner
Senior Research Fellow



New strides in Beating Heart Problems



Above: Dr Barbara Murphy
Principal Research Fellow

Current research suggests that depression is a risk factor both for a first acute cardiac event and for poorer outcomes after an acute event, including further cardiac events and premature death. As our donors may have read, the Centre recently conducted a randomised controlled trial (RCT) to evaluate the effectiveness of its "Beating Heart Problems" program to assist patients with health behaviour change and their management of depression or other negative mood.

At a recent conference in Paris, Dr Murphy presented results of the trial. Her paper looked at a comparison of outcomes for depressed and non-depressed patients.

Beating Heart Problems program

Beating Heart Problems was a unique eight-week program incorporating principles of cognitive behaviour therapy (CBT) and motivational interviewing (MI). Described as an integrated cognitive behaviour therapy (ICBT) approach, the eight-week program's focus was on skill development for behaviour change and mood management. The program was offered five weeks following patients' acute event. The Beating Heart Problems program combined depressed and non-depressed patients, therefore providing an opportunity for role modelling for

participants experiencing depression. Patients were recruited from both the Royal Melbourne Hospital and Melbourne Private Hospital.

Study findings

The trial was undertaken from 2007 to 2010 and included 275 patients whose physiological and behavioural risk factors were measured. Assessments were made of depression prior to attendance at the program. Patients were then randomly allocated to the program or to a control group. All patients attended the clinic at baseline for risk factor assessments and again at four and 12 months after leaving hospital.

Implications

Of the 275 patients enrolled in the RCT, 47 (17%) had Beck Depression Inventory-II scores above 13 at baseline, thus identifying them as having clinically significant depressive symptoms. Treatment and control group comparisons were undertaken for this sub-group to investigate the effects of the program upon depressed patients.

Upon analysis of the study's results, the research team found that the treatment group had greater reductions of depression symptoms, greater increases in high-density lipoprotein levels, and increased physical activity. All these improvements were significantly greater in the treatment group than in the control group. The treatment group also reported larger gains in self-rated health and confidence in managing depression, anxiety and anger. In addition, there were some strong trends in favour of the treatment group that approached statistical significance.

The two key features of the Beating Heart Problems program were that it combined behaviour and mood management, and that it combined depressed and non-depressed patients together in the group. That the research team saw a benefit for depressed patients in particular indicates that this

integrated approach is beneficial for such patients. Focusing on health behaviours as well as mood, and including non-depressed peers, appears to be helpful in the management of depression. The research results represent promising new strides in moving towards further improvement of cardiac patients' health outcomes. It also reinforces the influence of psychosocial factors on patients' recovery.

Feedback from participants

"It was great in every way. I'm prepared for the future for my life and health"

"I liked learning about controlling my emotions and I liked the idea of how I could work on my own thoughts"

"I found out how to look at life differently after my surgery"

"I appreciated having somewhere to turn to after leaving hospital"

Dr Robert Newman



SNAP SHOT

Dr Robert Newman works as a cardiologist at Western Hospital, Footscray. He is also a consultant in private practice. He felt inspired to specialise in cardiology because, when he was completing his studies, the field was expanding. It offered scope for innovation and investigation of new treatment options, as well as

the development of groundbreaking technologies.

Dr Newman has an enduring relationship with the Heart Research Centre, having worked with the Centre's former Cardiology Consultant and Foundation President, Dr Alan Goble, in the past at the National Heart Foundation (NHF) Cardiac Rehabilitation Centre during the 1970s. Since then, he has worked with the Centre's Director, Dr Marian Worcester. In particular, he has been a co-investigator on several of the Heart Research Centre's projects undertaken at Western Hospital.

Aside from his time at the NHF Cardiac Rehabilitation Centre, Dr Newman had little experience of contributing to research into psychosocial and behavioural aspects of cardiovascular disease (CVD). Because psychological factors have a substantial impact on sufferers of CVD, Dr Newman is pleased to be part of continuing research in this area.

Most recently, Dr Newman was involved in the Heart Research Centre's study of cardiac rehabilitation attendance as a predictor of long-term survival, as well as its investigation into patients' return to work after an acute cardiac event. Dr Newman became a member of the Centre's Board this year.

Dr Newman is married with three adult children and two grandchildren. Apart from his family, he cites his greatest personal achievement as attaining his fellowship of the Royal Australian College of Physicians (FRACP). His biggest challenge is planning for his retirement. He would like to devote more time to community activities, especially as a member of the Rotary Club of Footscray, of which he is a former president.

Dr Newman also plans to renew his interest in golf and tennis upon retiring. He loves to travel. His favourite destination in recent times is France. Of course, he also looks forward to the opportunity to spend more time with his family and see his grandchildren grow.



"Kickstart: Recharge Your Life with a Pacemaker or Defibrillator"

If you have a pacemaker, or someone you know is about to be fitted with one, this is the book for you. As well as the heartening stories collected by Dr John England, there is his own - the

experience of a cardiologist as a patient with his own pacemaker for 35 years.

Kickstart includes all the information you might need once you are fitted with this brilliant piece of modern technology - how it is implanted, how it works, what you need to be careful about, and what to do in the unlikely event of anything going wrong.

Contact the Heart Research Centre for further information about purchasing a copy of this book.

2011 Annual Report

The 2011 Annual Report will be available shortly. If you would like a copy, please send an email to bonnie.fisher@heartresearchcentre.org or call us on (03) 9326 8544.

The Annual Report will be available in hard copy or on CD.

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