

Australian Centre for Heart Health

Annual Report

2019



www.australianhearthealth.org.au





Annual Report

Improving the lives of people living
with heart disease



2019

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From the Director & President



“This year has been an exciting one for the Centre, as we embarked on a program invigorated by the generous bequest from Ms Angela Reid. This has allowed us to self-fund some important research studies and to plan for the delivery of our Cardiac Wellbeing Program.”

During 2019 there was increasing momentum for heart health to be identified as a national health priority with campaigns by the National Heart Foundation and the Baker Heart & Diabetes Institute, bringing strong messages about heart health and risk. These messages reinforce The Australian Centre for Heart Health’s commitment to prevention, especially secondary prevention of cardiovascular disease. The Baker Institute’s campaign, No Second Chances, highlighted the additional risk posed for people who have already had a heart attack. As we have often pointed out, one third of all hospitalised cases of heart attack are repeat events. Much of the risk of these repeat events can be reduced through attending cardiac rehabilitation or behaviour change programs and by addressing psychological issues such as unresolved depression and anxiety, and social issues such as isolation.

Nationally, the Australian Cardiovascular Alliance, of which the Centre is a member, has had a major influence on shaping the Medical Research Future Fund’s (MRFF) Cardiovascular Mission. Alongside the National Health & Medical Research Council (NHMRC), the MRFF mission is now the chief vehicle for funding cardiovascular research. We are currently seeking support from the MRFF Congenital Heart Disease initiative for a study to investigate the effectiveness of our Family Resilience Program for parents of children with congenital heart conditions.

In this exciting project we will convert our successfully piloted group-based program to an online self-management program and then compare the two versions - face to face and online delivery. If online delivery is successful the Centre will roll out the program nationally, to reach the maximum number of relevant parents as possible. This will require appropriate government, philanthropic or corporate support.

The need for funds to deliver support programs that we have developed and successfully trialled is constant, but plans are now well advanced to take advantage of the Angela Reid

bequest to offer counselling to people finding it difficult emotionally and psychologically to recover from their cardiac event. Our counselling services are being offered both face-to-face in our Cardiac Counselling Clinic, and online via zoom or skype. From 2020 we will also offer the Back on Track self-management online program via a trial, funded by the HCF Research Foundation. This is the sort of outreach-oriented service highlighted as necessary for addressing access and equity issues in the Consultation draft of the National Action Plan for Heart and Stroke.

We are pleased to be able to report on the effectiveness of our flagship training program, the Cardiac Rehabilitation and Secondary Prevention intensive course for health professionals, in the publication: Murphy, BM, Higgins, RO Le Grande, MR, Beauchamp A, Worcester, MU, Goble A, Jackson, AC. Impact of intensive training on health professionals' self-efficacy in establishing, running and maintaining a cardiac rehabilitation program. *Journal of Nursing Education and Practice*, 2019; 9(7): 1-9. This 5-day course is the only Australian course recognised by the International Council of Cardiovascular Prevention and Rehabilitation.

We are well under way with our Cardiac Distress research project. The Centre's previous research has shown that while many patients make a good physical recovery from heart attack or heart surgery, many experience changes in their mood and various difficulties in resuming usual activities after their cardiac event. Recruiting around 370 patients from Barwon Health, we will examine the prevalence and predictors of cardiac-related distress with a view to providing highly targeted psychosocial support: our version of 'precision medicine'.

The end of 2019 sees the Centre on the cusp of positioning itself strongly not only in the cardiology field but in the mental health field as the go-to centre of excellence in Cardiac Psychology. As always, however, we face serious challenges in funding as do many smaller not-for profits and to this end will be making a concerted effort in 2020 to acquire greater government and philanthropic support for our very important work.



Professor Alun Jackson
Director



Professor Edward Janus
President



Board Members

The Centre has benefited from the strong leadership provided by its Board and the expertise they bring in medical research and health services management, cardiology, fundraising, financial management, media and policy development. The Centre Board and staff were saddened by the death of our Board member Andrew McCallum at the end of the year shortly after his diagnosis of brain cancer. His calm and considered input to the Board's deliberations will be sorely missed. 2019 also brought to a close Johnnie Walker's Board participation due to ill health. As with Andrew, Johnnie brought to the Board diverse and valuable experience in industry, government and in not for profit organisations. His contribution will be greatly missed.



Professor Edward Janus

President

Professor Edward Janus is a physician and Director of General Internal Medicine in the Department of Medicine at the University of Melbourne at Western Hospital in Footscray.



Mr David Young

Secretary

Mr David Young joined the Board in 1993 when the Heart Research Centre (now the Australian Centre for Heart Health) became an independent organisation. He has been Honorary Secretary of the Board since that time.



Ms Beverley Knowles

Member

Ms Beverley Knowles, who joined the Board in 1997, is a corporate social responsibility and marketing consultant, and an executive volunteer for Leadership Victoria - GreatConnections.



Dr Robert Newman

Member

Dr Robert Newman is Head of Clinical Cardiology at Western Hospital in Footscray and an Honorary Senior Lecturer in the Department of Medicine at the University of Melbourne.



Mr Andy Sattler

Treasurer

Mr Andy Sattler has experience of a 30+ year hands on finance career, strong in treasury, financial control, forecasting and modelling.



Mr Andrew McCallum

Member

Mr Andrew McCallum was formerly the Manager in Development & Commercialisation Services for the Prince Henry's Institute of Medical Research. Mr McCallum was more recently a Senior Fellow at the MIMR-PHI Institute of Medical Research.



Mr Johnnie Walker

Member

Mr Johnnie Walker was the former President & Chairman for Clubs Victoria Inc. He has extensive experience in media including being a consultant to Department Prime Minister & Cabinet in Australia, UK and NZ. Johnnie was also the executive director of SBS Channel 0/28 which was responsible for the development of the multicultural TV network.

In 2020 we will welcome two new Board members: Dr Alan Hutchinson and Dr Tangerine Holt.

Alan is President of Heartbeat Victoria and has enjoyed a long and successful career in educational administration and leadership. He holds a University of Melbourne Doctor of Education degree in public policy analysis and evaluation; is a Fellow of the Australian Council for Educational Leaders and a Fellow of the Institute of Managers and Leaders.

Tangerine is currently Academic Program Director (Business and Management Cluster) at the Melbourne School of Professional and Continuing Education (MSPACE), University of Melbourne, and an Adjunct Professor at La Trobe University. She was previously Director of Higher Education, Markets and Growth at KPMG, and CEO and Executive Director of the Australian-American Fulbright Commission. She is a Board Member of the Australian Regenerative Medical Institute Advisory Board (ARMILAB).

Improving the lives of people living with heart disease...

Our Mission

Our mission is to improve the lives of people living with heart disease so they can lead engaged and productive lives.

The Australian Centre for Heart Health (ACHH) is the only government-recognised, independent medical research institute working exclusively on psychological and behavioural recovery and the prevention of further cardiac events.

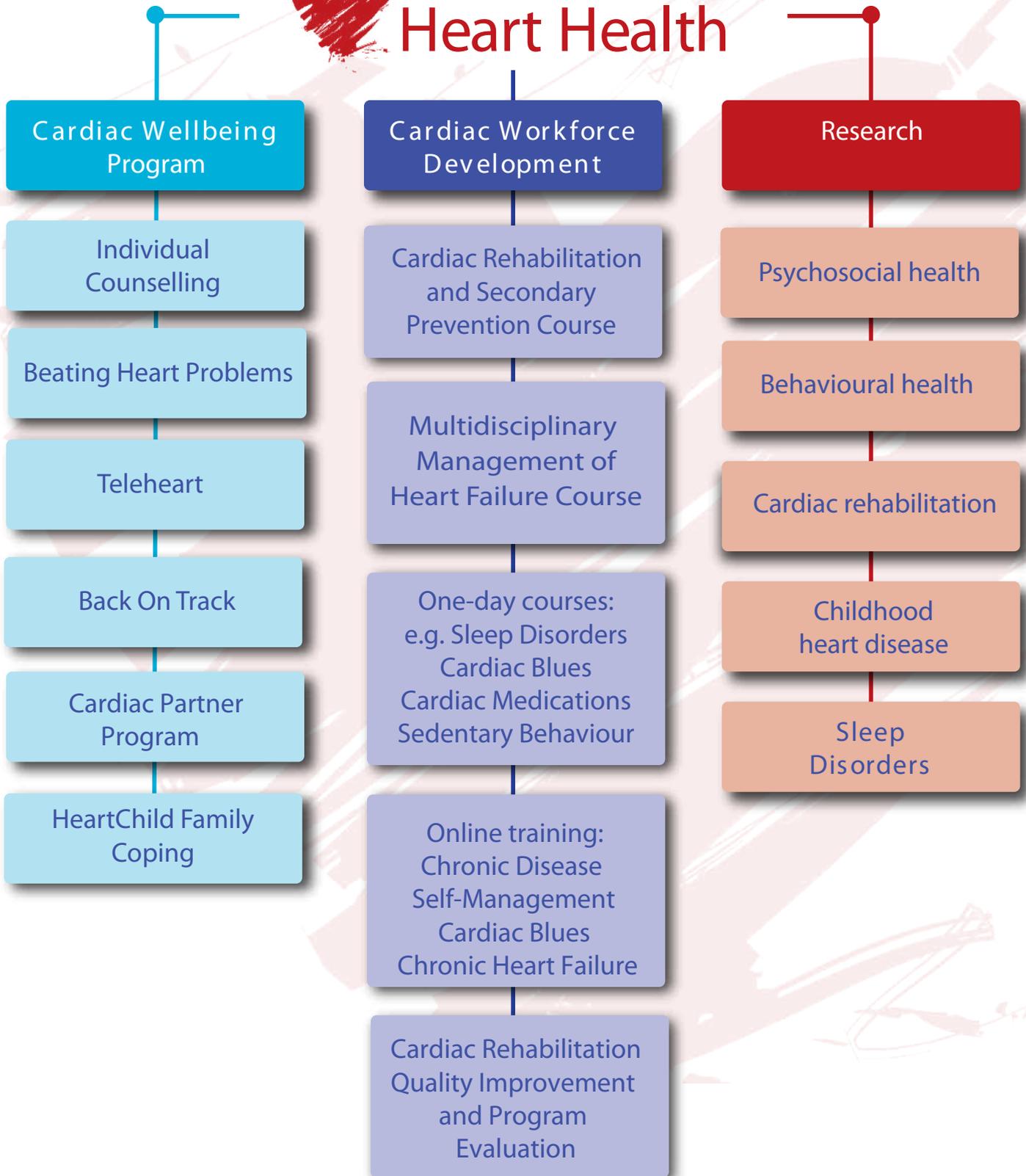
Our research explores people's ability to recover from a heart attack or heart surgery. Focusing on the psychological and behavioural aspects of cardiac events, our research explores how people can effectively manage the disease to prevent further heart events and premature death.

ACHH's extensive research supports self-management, emotional wellbeing and behavioural change through our Cardiac Wellbeing Program as the key to improving cardiac wellbeing.

Our evidence-based training programs equip health professionals to provide multi-disciplinary care to cardiac patients.



Australian Centre for Heart Health



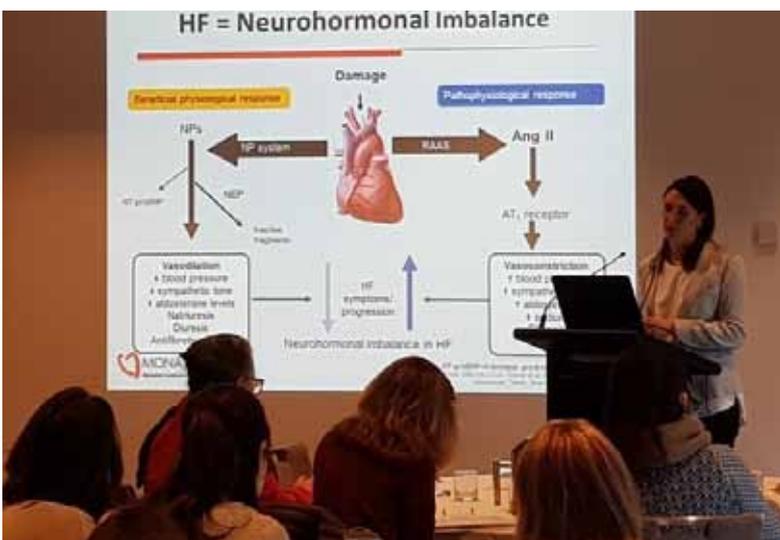
Our year in review



Panel members from the *Cardiac Blues* webcast delivered by the National Heart Foundation - Eugene Lugg NHF; Rosemary Higgins, ACHH; Niamh Dormer, Cabrini Health; Kim Tucker, Monash Health; and Barbara Murphy, ACHH.



Briefing cardiac rehabilitation staff at Monash Health about the Centre's *Women's CR Project*.



Dr Siobhan Lockwood, Head of Heart Failure, Cardio-Obstetrics and Cardio-Oncology, Monash Heart, with our trainees.

Trainees at the 2019 Cardiac Rehabilitation and Secondary Prevention Course <<



>> Research Nurse Kim Tucker with the first patient to be enrolled into the *Women's CR Project* in May 2019



Research Nurse Kim Tucker and Yoga instructor Jenni Morrison-Jack with our first graduate from the *Women's CR Program* in July 2019



Professor Alun Jackson presenting the Research Prize at the Australian Cardiovascular Health and Rehabilitation Association 2019 Annual Scientific Meeting



Women's Cardiac Rehabilitation Project



One of the major projects undertaken by the Centre during 2019 was the Women's CR project. The Women's CR project involved a women-only yoga-based cardiac rehabilitation (CR) program designed to improve women's participation in cardiac rehabilitation.

In this Australian-first program, female cardiac patients who were admitted to Monash Health for an acute cardiac event – either heart attack, unstable angina or spontaneous coronary artery dissection (SCAD), or to undergo coronary artery bypass graft surgery or stenting - were offered a CR program designed especially for women and run in a women-only environment.

The project was run by Ms Kim Tucker, an experienced cardiac nurse and Researcher with the Centre, together with the Centre's Principal Researcher, Dr Barbara Murphy. The project was funded by a Vanguard Grant from the National Heart Foundation of Australia.

Why do we need a women-friendly CR program?

Previous research has shown that CR is extremely beneficial in helping people who have had an acute heart event to make a full physical and emotional recovery. However, women are much less likely than men to attend a CR program. Often this is attributed

to the exercise component, as some women believe that the gym-style exercises generally offered at CR programs may not be suitable for them. Some women also say that they prefer a female-only environment for undertaking exercise. The purpose of this project was to offer women an exercise program that is female-friendly, as part of their CR program. Women participated in the usual educational sessions of CR and attended one-hour women-only sessions of yoga. The yoga sessions were run by an accredited yoga instructor, Ms Jenni Morrison-Jack. Jenni is very experienced in providing yoga for women of all ages and tailoring her program to the particular needs of each participant.

What did the Women's CR project achieve?

A major aim of the project was to improve the uptake of and adherence to CR amongst women. We compared uptake and adherence to our program with those of the usual program run in the previous year. We found that, as predicted, both the attendance and

Women commented that the program had given them “ a new lease of life” and “was way beyond expectations.”

completion rates amongst women were higher for the Women’s CR program offered in 2019 than for the traditional CR program for the same six-month period in 2018. Interestingly, women who attended the Women’s CR program were also more likely than those from the previous year to go on to attend a Phase III CR program in the community.

Who attended the Women’s CR program?

In total, 22 women attended and completed the Women’s CR program while it was running at Monash’s Clayton CR Centre during 2019. Women ranged in age from 33 to 89 (mean age 64), with more than half the women born outside Australia, most often India, Sri Lanka and Britain.

What did women say about the Women’s CR program?

Participating women were highly positive about the program, with all indicating that the program was enjoyable, that the instructor

was helpful, and that they would recommend the program to others. Women commented that the program had given them “a new lease of life” and “was way beyond expectations”.

What did health professionals say about the Women’s CR program?

We also surveyed 20 staff from Monash Health who had been involved, either directly or indirectly, with the Women’s CR program while it was running at the Clayton CR Centre. Almost all the respondents indicated that they would like to see the Women’s CR program continue at Monash in the future. All but two indicated that they would like to see yoga CR offered to men as well as women, and all but one agreed that yoga should be offered at other CR programs across Victoria and Australia. The Centre will continue to seek financial support to extend the Women’s CR yoga program to other hospitals and health regions, and potentially demonstrate the benefit of increasing CR options for both female and male patients.

Sleep disorders and cardiovascular disease

WHAT RESEARCH ARE WE DOING IN THIS FIELD?

Systematic review of prevalence of Obstructive Sleep Apnoea (OSA) in cardiac patients

In order to build the evidence base upon which recommendations for screening and treatment are provided it is important to establish how common OSA is in cardiac patients, particularly upon entry into cardiac rehabilitation programs where opportunities for screening may take place.

What we found - close to half of all patients presenting to cardiac rehabilitation programs had moderate to severe OSA as assessed by objective measures such as polysomnography or portable home monitoring.

Output - The manuscript Prevalence of obstructive sleep apnoea in acute coronary syndrome patients: systematic

review and meta-analysis has been submitted to BMC: Cardiovascular Disorders and has been approved for publication pending minor revision.

Review and analysis of sleep related assessment instruments that have been used with cardiac patients

Also building upon the evidence base is the question of what are the most valid and practical questionnaires (instruments) that could be used in screening for OSA in cardiac patients. In order to be useful, any instrument must be good at ruling in OSA when a patient really has OSA (true positives) and must minimise false positives or predicting that a patient has OSA when they actually do not. In addition, for cardiac rehabilitation professionals, the instrument should be brief, affordable, easy to administer and easy to score.

OSA

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What we found - close to half of all patients presenting to cardiac rehabilitation programs had moderate to severe OSA as assessed by objective measures such as polysomnography or portable home monitoring.

Output - A manuscript on the prevalence of obstructive sleep apnoea in acute coronary syndrome patients: systematic review and meta-analysis has been submitted to BMC: Cardiovascular Disorders and has been approved for publication pending minor revision.

Why does the Centre focus on Obstructive Sleep Apnoea (OSA) in heart patients?

OSA is both a major risk factor for development of heart disease and is a major determinant of poor recovery following a heart attack.

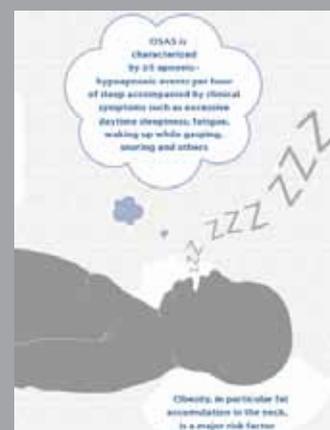
Patients with OSA are less likely to follow exercise recommendations during recovery. Many patients with OSA and heart disease are unaware that they have this condition which could be easily treated. The Centre aims to improve physical functioning and emotional wellbeing and assist with recovery following a heart attack or operation.

Background - Quantitative and qualitative analysis of instruments for a range of sleep disorders including OSA, insomnia and sleep apnoea have been conducted. Only a few instruments were found to be suitable for screening purposes in cardiac rehabilitation settings.

The manuscript is currently in preparation and will be submitted for publication in 2020 and research findings will be presented at the British Association of Cardiovascular Health and Rehabilitation Association Annual Meeting to be held in London in August 2020.

National survey of cardiac rehabilitation professionals regarding sleep disorder assessment, screening and treatment issues.

The information obtained from the previous two studies will be used to inform this research, to be carried out in mid-2020, which will identify the potential issues involved with implementation of screening for sleep disorders within cardiac rehabilitation settings.

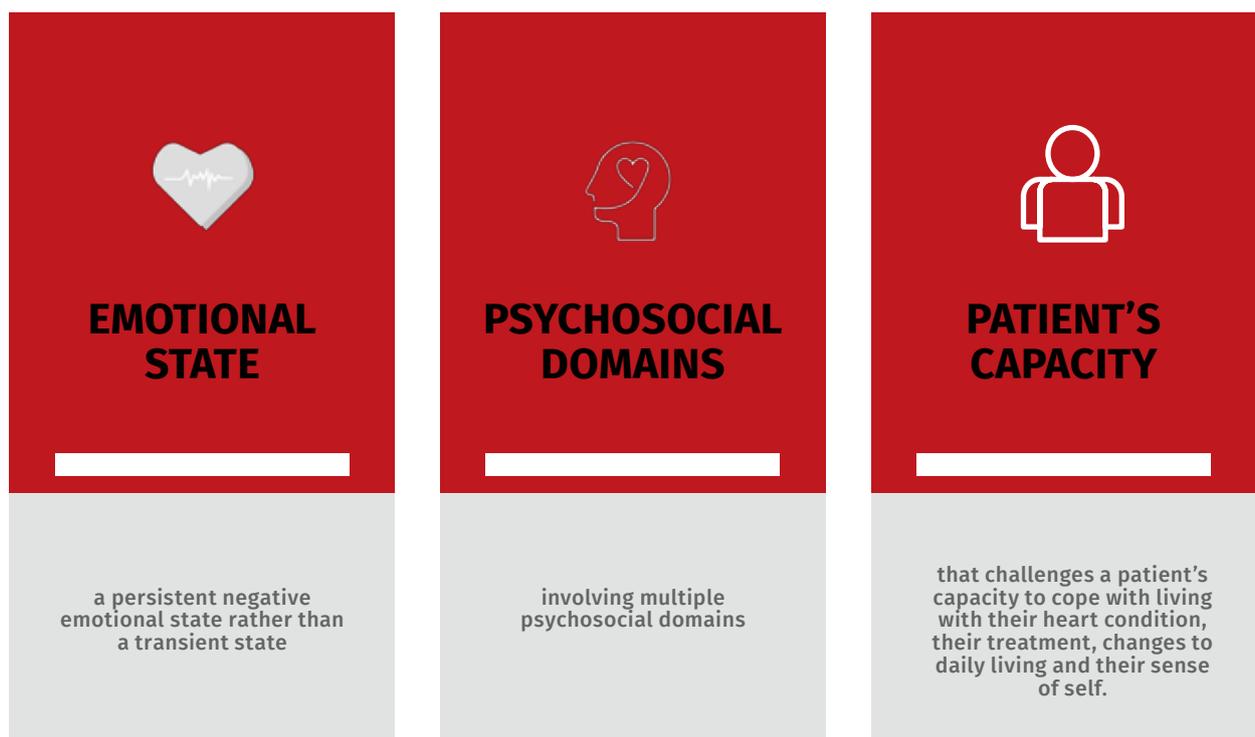


Understanding Cardiac Distress

In its research work to date, the Centre has examined various aspects of depression and anxiety as both risk factors for and consequences of acute cardiac events. Attention has also been paid in research studies to the broader construct of 'cardiac distress', but unfortunately distress has often been too narrowly defined as simply a combination of anxiety and depression.

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We understand it to be much more than this. We see it as:





Both the oncology and diabetes fields use cancer-specific and diabetes-specific measures of distress whereas no such measure exists in the cardiac field.

To find out more about the prevalence and severity of distress and to develop an accurate measure of that distress, the Centre initiated the Cardiac Distress Study.

Findings of this study will be used to develop world-first reliable and valid measure of cardiac distress: the Cardiac Distress Inventory (CDI), mirroring measures used in the oncology and diabetes fields.

What are we doing?

Three hundred and seventy people who have had an acute cardiac event in the previous six months are being recruited from Barwon Health with the help of the University Hospital Geelong, Cardiology Research Unit. Participants will complete a 74-item scale to assess cardiac distress. The items were developed by a multidisciplinary team (psychology, nursing, behavioural science, psychiatry, cardiology) and validated through focus groups with multidisciplinary cardiac rehabilitation professionals. Respondents also provide data on sociodemographic characteristics, depression, anxiety and anger.

With the data we collect, we can describe the factors associated with high distress across the item clusters such as anxiety, depression, worry, fear of death, concerns about the future, pain, loneliness and isolation, social support, cognitive function,

and sleep problems.

Implications for practice

The findings of this study will be used to develop a world-first reliable and valid measure of cardiac distress: the Cardiac Distress Inventory (CDI), mirroring those measures used in the oncology and diabetes fields. Using the CDI, health professionals will be able to identify key clusters of psychological, emotional and social concern to address with patients, post-cardiac event. Psychometric testing of the long-form CDI will result in the development of a short-form which could be used in outpatient clinics and cardiac rehabilitation settings to screen patients for referral to counselling. The Centre has already had interest from clinicians and researchers overseas to translate the CDI into Italian, Hebrew, Arabic, Farsi, and Spanish.

Workforce Development

In 2019, the Centre once again offered its flagship Cardiac Rehabilitation and Secondary Prevention training program. This is the 26th consecutive year that the training has been offered. The Centre also ran the Multidisciplinary Management of Chronic Heart Failure course which has been regularly offered since 2004. The training programs are delivered by a team of professionals who specialise in cardiology, cardiac surgery, cardiac nursing, physiotherapy, exercise physiology, occupational therapy, cardiac psychology, behaviour change, and adult learning.

The training programs are an ideal vehicle for research translation. We ensure that our own research findings are integrated into the curriculum of the courses. We also ensure that the courses are consistent with the latest Guidelines for practice such as the Heart Failure Guidelines published in late 2018.

Heart, Lung and Circulation (2018) 27, 1123–1208
1443-9506/04/\$36.00
<https://doi.org/10.1016/j.hlc.2018.06.1042>

GUIDELINES

National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand: Guidelines for the Prevention, Detection, and Management of Heart Failure in Australia 2018

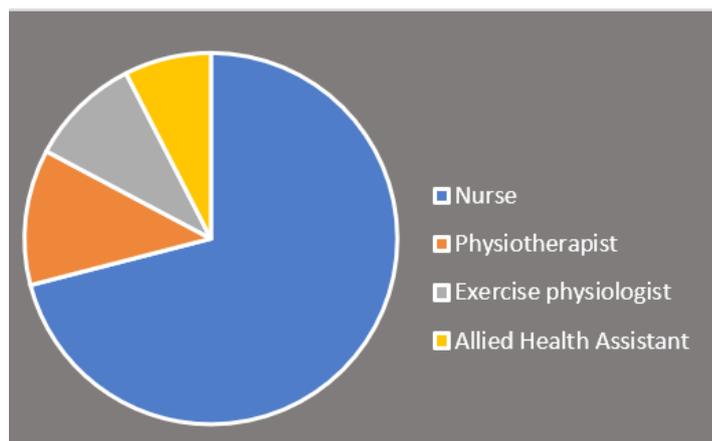


Who does our training?

In total, 56 health professionals attended these courses. The majority of attendees were registered nurses - 63% of attendees at the cardiac rehabilitation training and 75% of attendees at the heart failure training. The pie chart shows the breakdown of professions attending the two training programs.

Training participants came from across Australia. Less than half (43%) came

from Victoria. The other states were well represented with 33% of attendees from South Australia and 18% from Tasmania. Lower numbers came from Queensland, Northern Territory and



New South Wales, making up five percent of attendees. The training programs are designed to appeal to health professionals from beyond the metropolitan areas. It was pleasing to note that around two thirds of attendees were from rural or remote health services, with one third from large metropolitan centres. In addition, 36 health professionals undertook our online training courses on Cardiac Blues, Heart Failure and Chronic Disease Self-Management.

How effective is the training?

Since 2014 we have measured how the program improves participants' self-

efficacy, or their confidence to run cardiac rehabilitation (CR) programs at the start of the training, when they finish, and 4 months after completion. Surveys were completed by 167 trainees, 72% of whom were nurses. Over a third were CR program coordinators, and just under half were CR team members, with most of the remainder planning to work in CR in the future.

The results were published this year in the *Journal of Nursing Education and Practice*.

Impact of intensive training on health professionals' self-efficacy in establishing, running and maintaining a cardiac rehabilitation program

Barbara M Murphy^{1,2,3}, Rosemary O Higgins^{1,4}, Michael Le Grande^{1,2}, Alison Beauchamp^{1,5}, Marian U Worcester^{1,6}, Alan J Goble¹, Alun C Jackson^{1,2,7}

¹*Australian Centre for Heart Health, Melbourne, Australia*

We found that participants' self-efficacy scores increased significantly after undertaking the training, across all three (operational, medical and psychosocial) of the main areas covered by the courses. Another important result showed that for the operational area, those with more experience in CR (2 years or more) scored higher than those with less CR experience (0-2 years) at pre-training but the less experienced made greater gains over time, with there being no difference between the two

groups by post-training.

The improvements in self-efficacy evidenced immediately post-training were also maintained four months later. This is particularly encouraging, as immediate gains in confidence can be challenged once training participants return to the workplace and encounter the barriers to implementing the knowledge and skills they have gained. These challenges can include both personal and workplace-related barriers to practice change.

The Cardiac Wellbeing Program

This Program has two elements: face-to-face and telehealth recovery options.

With the very generous support of a major bequest from Ms Angela Reid, and the support of our other loyal donors, this year saw the consolidation of our planning for the Cardiac Wellbeing Program (CWP) and the beginning rollout of the CWP services. This Program has two elements: face-to-face and telehealth recovery options. All of our programs incorporate principles of cognitive behaviour therapy (CBT) and motivational interviewing (MI) and are based on a self-regulation framework.

Why is specialist psychological support necessary?

Patients who are anxious or depressed after an acute cardiac event are at increased risk of a subsequent event and premature death. The Centre's research has shown that anxiety rates can be up to 44% at the time of the event, 28% in early convalescence, and 27% in late convalescence; while depression rates can be up to 22%, 17% and 15% for the same periods.

People who have experienced anxiety or depression before their cardiac event are more at

risk of post-event anxiety and depression.

People living with a heart condition may seek help for adjustment issues and mood disorders associated with their cardiac event quite soon after their heart attack or surgery, or after a longer period of trying to cope with their depression, anxiety or distress. People may also seek support to stay with the lifestyle decisions they have made to help prevent another cardiac event.

How are we offering psychological support?

Through a **GP assessment and a mental health plan,**

where if a GP agrees that a patient's recovery would be assisted by specialist psychological support, they can approve a mental health plan entitling the patient to Medicare-rebated counselling sessions. Although sessions are usually face to face, there is an option to provide skype sessions for people in rural and remote areas and in some metropolitan areas. Through a **General Practitioner Management Plan (GPMP)**, by which GPs are able to refer eligible patients with a chronic condition, such as heart failure, to allied health practitioners as part of a team approach to managing

their health, including their emotional wellbeing. People can also access psychological support by making a self-referral to the Cardiac Wellbeing Program by calling 03 9325 8544.

How do we extend the reach of cardiac rehabilitation and support recovery?

There is overwhelming evidence to support the benefits of cardiac rehabilitation, including lower cardiovascular disease-related morbidity and mortality, improved function and quality of life, and reduced hospital readmissions and length of stay if re-admitted. Some people, however, are unable to attend cardiac rehabilitation because

it is too far to travel, or because they live alone and don't have anyone to take them, or because they feel uncomfortable in a group.

We have now developed and trialled programs to meet the needs of people recovering from their heart attack or surgery who are isolated for some reason and need to access their cardiac rehabilitation by phone or internet. These programs include:

Teleheart, a 5-session **telephone**-delivered program offered post-cardiac event,

providing a personalised behaviour change and maintenance program with patients supported by one-on-one telephone sessions with a trained psychological support worker, together with self-designed SMS messages. The program addresses key areas of recovery – healthy eating, physical activity, smoking cessation, and emotional wellbeing.



Strength in partnerships

This year saw the Centre continue to develop partnerships with end-user organisations such as HeartKids Australia who continued to support the development and trialling of our Family Resilience Program. Our group-based program, the first of its kind in Australia, is aimed at helping parents of children with congenital heart disease to cope effectively with the demands that they face. The Centre also signed a Memorandum of Understanding with HeartBeat Victoria, a peer support organisation for people living with heart disease, to work with us on co-designing support programs and in recruiting participants for our research.

A close working relationship with health service providers is vital to our research and program development work: Monash Health in the case of our Women's Cardiac Rehabilitation Project; and Barwon Health in our Cardiac Distress Study.

Partnership case study: How we built a multi-modal cardiac patient self-management program through a 10-year partnership with philanthropy, government and health services

Over the past ten years we have developed a suite of programs – the Beating Heart Problems program (face-to-face group-based led by a trained health professional), Teleheart (telephone delivered, one-on-one with a trained health professional), and Back on Track (online, home-based, individual self-directed) – to assist people who have had a cardiac event in the management of their disease and the prevention of secondary events. All three programs are based on the principles of cognitive behaviour therapy and motivational interviewing, and all incorporate self-monitoring strategies to enhance their effectiveness in long-term self-management of behavioural and emotional health after an acute cardiac event.

The development and trialling of these programs show how important partnerships with government and philanthropy and our research partner institutions are to the work of the Centre.

Development of the 'Beating Heart Problems' program

With funding from Australian Rotary Health and the Norman H. Johns Trust, the Centre developed and trialled an 8-week centre-based 'Beating Heart Problems' group-based program. The program addresses four key health behaviours – healthy eating, physical activity, smoking cessation and medication adherence – and four key psychosocial issues – managing depression, anxiety and anger, and increasing social support. In a 4-year randomised controlled trial, which commenced in 2008 and involved 275 patients from The Royal Melbourne and Melbourne Private Hospitals, we demonstrated that the 'Beating Heart Problems' program significantly reduced patients' cardiac risk, and improved their health behaviours and mental health.^{1,2}

Development of the Teleheart program

With funding from the State Government’s Victorian Cardiac Clinical Network (VCCN), we developed and piloted ‘Teleheart’ a telephone-delivered self-management version of the Beating Heart Problems program to extend the reach of secondary prevention care. The program is delivered by the Centre’s cardiac psychologists. A pilot study, involving 22 cardiac patients from Monash Health, demonstrated that the program was helpful to people during recovery after a cardiac event and improved self-management of health behaviours and emotional wellbeing³.

Development of the Back on Track online program

With funding from the HCF Research Foundation and Telematics Trust, we simultaneously developed and piloted the ‘Back on Track’ online self-management program, developed using a co-design approach involving patients, to further extend the reach of the original group program. The pilot study, undertaken with 23 cardiac patients from Cabrini Health, demonstrated the program’s acceptability as a means of self-management support⁴.

Finally, to build on their initial investment, in 2019 we received a second grant from the HCF Research Foundation to test two methods of delivery of the ‘Back on Track’ program – one self-directed by the user, and one supported by telephone sessions with a health psychologist. Outcomes for the two groups will be compared post-program and 4 months later to determine immediate and sustained benefits of the two approaches. Trialling of the two methods of delivery will begin in 2020 and continue for two years, involving up to 300 people who have had a cardiac event within the past year.



References

1. Murphy BM, Worcester MUC, Higgins RO, et al. Reduction in two-year recurrent risk score and improved behavioural outcomes after participation in the Beating Heart Problems self-management program: results of a randomised controlled trial. *Journal of Cardiopulmonary Rehabilitation and Prevention* 2013; 33: 220-228.
2. Turner A, Murphy B, Higgins R, et al. An integrated secondary prevention group program reduces depression in cardiac patients. *European Journal of Preventive Cardiology* 2014; 21: 153-62.
3. Higgins RO, Murphy BM, Navaratnam H, et al. Extending cardiac rehabilitation: a telephone self-regulation pilot. *British Journal of Cardiac Nursing* 2017; 12: 398-406.
4. Higgins RO, Rogerson M, Murphy BM, et al. Cardiac rehabilitation online pilot: extending reach of cardiac rehabilitation. *Journal of Cardiovascular Nursing* 2017; 32: 7-13.





Publications

The Centre had a strong year in its publication output in 2019

The Centre had a strong year in its publication output in 2019, starting with an important article on the measurement of health-related quality of life:

Le Grande M, Bunker S, Tucker G, Jackson AC. Validating the SF-12 and the development of disease specific norms in a cohort of Australian private health insurance members, (2019). *Australian Journal of Primary Health* <https://doi.org/10.1071/PY18069>

We continued the measurement theme, examining health professionals' attitudes towards patient activation. This is the process through which we engage or motivate a patient to play an active role in their own health and care, instead of the more passive role of being 'told what to do' by a health professional:

Shand L, Higgins RO, Murphy BM, Jackson AC. Development and validation of the Healthcare Provider Patient-Activation Scale, *Patient Education and Counseling*, 2019, <https://doi.org/10.1016/j.pec.2019.03.005>

We have had interest from clinicians and researchers in the United States, Taiwan and Japan in translating or using the Scale. We have also converted the Scale so that it measures health professional's behaviours in pursuit of patient activation.

Another aspect of our work on the design of clinical measurement tools, the development of the Cardiac Distress Inventory, is discussed in our paper submitted to *BMJ Open* and currently under review:

Jackson AC, Rogerson M, Le Grande MR, Thompson D, Ski C, Alvarenga ME, Amerena J, Higgins RO, Raciti M, Murphy BM. Protocol for the development and validation of a measure of persistent psychological and emotional distress in cardiac patients: The Cardiac Distress Inventory. *BMJ Open*

The Centre's expertise in researching depression has been showcased in the publications:

Le Grande M, Jackson AC, Ski CF, Thompson DR, Brown A. Depression, Cardiovascular Disease and Indigenous Australians. In: Zangeneh M., Al-Krenawi A. (eds) *Culture, Diversity*



and Mental Health - Enhancing Clinical Practice. *Advances in Mental Health and Addiction*. Springer, 2019.

Worcester MU, Goble AJ, Elliott PC, Froelicher ES, Murphy BM, Beauchamp AJ, Jelinek MV, Hare DL. Mild depression predicts long term mortality after acute myocardial infarction: a 25-year follow-up. *Heart Lung and Circulation*. 2019, <https://doi.org/10.1016/j.hlc.2018.11.013>

Our attention to multidisciplinary practice and workforce development was reflected in:

Murphy BM, Higgins RO, Lugg E, Jackson AC. A GPs guide to managing the cardiac blues. *Australian Doctor*, 2019. <https://www.ausdoc.com.au/therapy-update/gps-guide-managing-cardiac-blues>

Murphy, BM, Higgins, RO Le Grande, MR, Beauchamp A, Worcester, MU, Goble A, Jackson, AC. Impact of intensive training on health professionals' self-efficacy in establishing, running and maintaining a cardiac rehabilitation program. *Journal of Nursing Education and Practice* 2019; 9(7):1-9

The Centre contributed to a very important editorial, highlighting barriers to women's access to cardiac rehabilitation, a topic we pursued in the *Women's Cardiac Rehabilitation Project*.

We await the publication of two additional papers submitted during the year and accepted for publication in 2020:

Le Grande M, Beauchamp A, Driscoll A, Jackson AC. Prevalence of obstructive sleep apnoea in acute coronary artery syndrome: Systematic review and meta-analysis. *BMC Cardiovascular Disorders*

Beauchamp, A., Sheppard, R, Wise F, Jackson, AC. Health literacy of patients attending cardiac rehabilitation. *Journal of Cardiopulmonary Rehabilitation & Prevention*

Heart, Lung and Circulation (2018) xx, 1-7
1443-9506/04/\$36.00
<https://doi.org/10.1016/j.hlc.2018.11.013>

ORIGINAL ARTICLE

Mild Depression Predicts Long-Term Mortality After Acute Myocardial Infarction: A 25-Year Follow-Up

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Editorial

Improving the uptake of cardiac rehabilitation for women: time for a gender-based review

Jan Cameron^{1,2}, Barb Murphy^{2,3,4} and Lisa Kuhn¹

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality in women internationally. Around one in three deaths in women is due to CVD.¹ Coronary heart disease (CHD), the predominant contributor to CVD, is by

programme recommended following an acute cardiac event. The early programmes primarily focused on exercise therapy to assist men returning to paid work and physical activities.⁴ Over the decades since then, CR has

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During this year we responded to invitations to submit to two special issues of journals. The UK journal, Public Health, invited a paper in a special issue on ‘Gambling as an Emerging Public Health Issue: We submitted:

Jackson AC, Clark J, Murphy BM. Cardiovascular risk and its management in older gamblers. *Public Health*.

The other invitation was from the journal Frontiers in Psychology, for their special issue on ‘Minding the Heart’. Our paper was published in January 2020:



ORIGINAL RESEARCH
published: 29 January 2020
doi: 10.3389/fpsyg.2019.03010



Anxiety and Depression After a Cardiac Event: Prevalence and Predictors

Barbara Murphy^{1,2,3*}, Michael Le Grande^{1,2}, Marlies Alvarenga^{1,4}, Marian Worcester^{1,5} and Alun Jackson^{1,2,6}

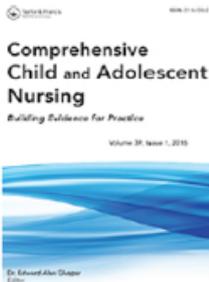
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Introduction: Patients who are anxious or depressed after an acute cardiac event are at increased risk of a subsequent event and premature death. It is therefore important to identify these patients early in order to initiate supportive or even preventive measures. In the present study, we report on the prevalence of anxiety and depression during the first 12 months after an acute cardiac event, and the patient characteristics predictive

In an article that showcases the Centre’s commitment to partnership, we published an important paper on our pilot of a Family Resilience program developed for families with a child with a congenital heart condition in collaboration with HeartKids Australia:

Jackson A.C., Frydenberg E., Koey XM, Fernandez A, Higgins RO, Stanley T., Pui-Tak Liang R., LeGrande MR, Murphy, BM. Enhancing parental coping with a child’s heart condition: A co-production pilot study, *Comprehensive Child and Adolescent Nursing*, 2019 <https://doi.org/10.1080/24694193.2019.1671915>





Enhancing Parental Coping with a Child's Heart Condition: A Co-production Pilot Study

Alun C. Jackson, Erica Frydenberg, Xui Min Koey, Amanda Fernandez, Rosemary O. Higgins, Tracy Stanley, Rachel Pui-Tak Liang, Michael R. Le Grande & Barbara M. Murphy

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Finally, during this year we have worked with a team of nurse researchers in Iran under the leadership of Dr Fatemeh Bahramnezhad to assist them in postgraduate supervision, and in getting their research published. We have co-authored research papers on:

- Nurses' experience of patient care utilizing extracorporeal membrane oxygenation
- Adjustment to a new heart
- The effect of partnership-based education on adherence to the treatment plans of patients undergoing open heart surgery
- The ethical challenges of home care nursing.



Financial Report

2019

Statement of Comprehensive Income

For the year ended 30 June 2019

	2019 \$	2018 \$
Revenue	\$2,502,090	\$1,222,081
Fundraising	(560,613)	(602,893)
Salaries & benefits	(401,231)	(490,766)
Depreciation	(5,739)	(19,473)
Operating & administration costs	(299,295)	(270,770)
Surplus/(Delicit) for the year before tax	1,235,212	(161,821)
Income tax expense	-	-
Surplus/(Delicit) for the year	1,235,212	(161,821)
Other comprehensive income		
Other comprehensive income for the year	-	-
Total comprehensive result for the year	1,235,212	(161,821)

Statement of Financial Position

As at 30 June 2019

	2019 \$	2018 \$
Current Assets		
Cash and cash equivalents	413,263	95,301
Trade and other receivables	50,539	25,761
Financial assets	1,024,750	24,750
Total Current Assets	1,488,552	145,812
Non Current Assets		
Financial Assets		
Property, plant & equipment	39,753	27,062
Total Non Current Assets	39,753	27,062
Total Assets	1,528,305	172,874
Current Liabilities		
Trade and other payables	154,892	60,049
Employment benefits	30,418	7,239
Total Current Liabilities	185,310	67,288
Non-Current Liabilities		
Employee benefits	13,670	11,473
Total Non-Current Liabilities	13,670	11,473
Total Liabilities	198,980	78,761
Net Assets	1,329,325	94,113
Equity		
Retained surplus	1,329,325	94,113
Total Equity	1,329,325	94,113

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