

Waikato Integrated Heart Failure Service – Five Years On.



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Waikato District Health Board

Te Hanga Whaioranga Mō Te Iwi – Building Healthy Communities

Overview

- ❑ Heart Failure (HF) background
- ❑ Waikato Integrated Heart Failure Service (WIHFS)
- ❑ WIHFS community patient management
- ❑ WIHFS – five years on
- ❑ Self-care management
- ❑ Influencing factors
- ❑ Components of self-care behaviour
- ❑ What does the future hold?

Heart Failure Background

- Significant cause of hospitalisation
- One-year mortality rates 25-35% after initial hospital admission (Schaufelberger et al, EurHJ, 2004).
- Median survival after initial HF admission in NZ is 3.5 years (Wasywich et al, EurJHF, 2010).
- Inequalities in HF outcomes for NZ Māori (Bramley, NZMJ, 2004; Riddell, NZMJ, 2005).
- Significant differences in utilisation of HF services between urban and rural populations (Clark, MJA, 2007).
- Significant difference in investigations and prescribing for HF between urban and rural populations (Fraser, NZ Rural Lit Review, 2009).

Community Issues

- Availability of prognosis changing medications and treatments not well utilised
- Limited patient contact or no contact with health services
- Delay in HF diagnosis
- Delay in starting appropriate treatment +/- optimisation of appropriate treatment
- Non concordance with medication regime, poor patient self care management



Service Objectives

- To provide better local access to diagnostics and specialist care
- To support general practice teams & improve communication between primary and secondary providers and patients
- To reduce health inequalities, in particular for Maori HF patients
- Long-term: to reduce HF admission & re-admission

Primary Concepts

- Assessment and management localised to the patients' home / community
- Providing Clinical Nurse Specialist (CNS) expertise in the wider community
- Enable earlier identification of at risk people & delivery of timely treatment
- Most important : enabling patient self-care management

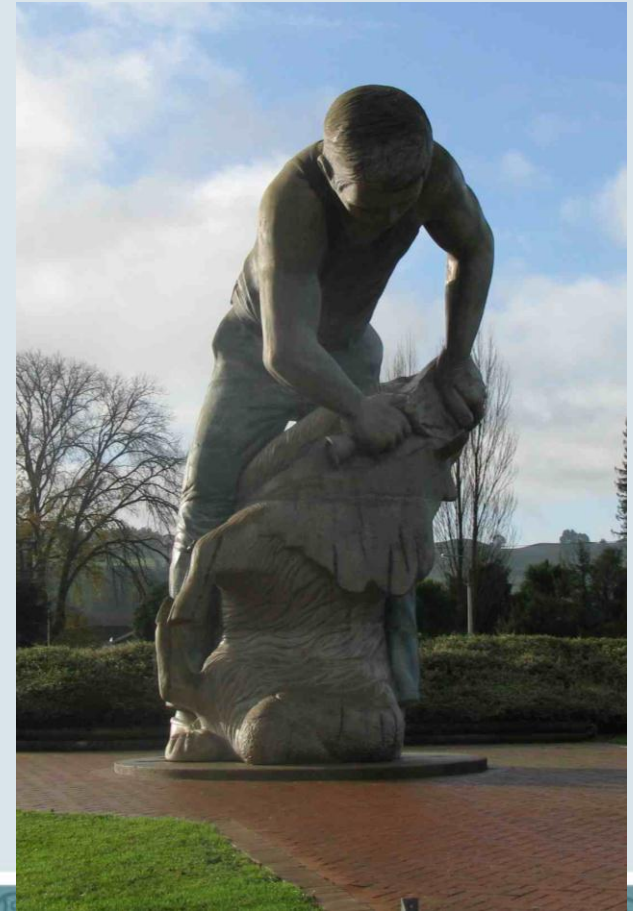
Intervention

- Community based HF outpatient clinics
- Nurse-led clinic patients
- Semi-autonomous CNS community management
- CNS consultation & collaboration with GP and general practice team



Service Evaluation

- A formal evaluation of the service at baseline & 1 year
- Evaluation inclusive of quantitative and qualitative data
- Baseline data - demographics, risk factors, investigations and medications
- Key stakeholders were invited to participate



Baseline Findings

- 53% male; 40% Maori
- Median age 74 years
- Maori presented 10 years earlier than non-Maori
- Multiple co-morbidities
- Low utilisation of NTproBNP and echo at diagnosis
- Documented NYHA classification
- Medications



After 12 months

- 126/131 had an echo at clinic:
 - 57.9% EF >50 (mostly normal)
 - 20.6% EF 41-50
 - 21.4% EF <40
 - 46% had diastolic dysfunction
- 60% of clients required medication altered or started:
 - 15% had beta blocker altered,
 - 1 in 5 had ACEI dose altered,
 - less than 10% had an ARB or angiotensin altered.
- 10% were referred to main hospital for further investigations such as angiography
- Formative and process evaluation took place to inform how best this service should continue.

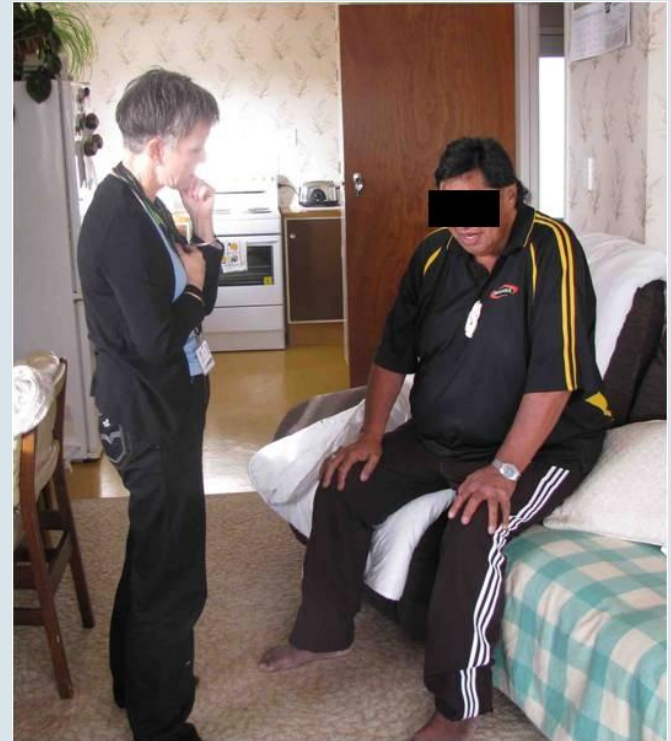


Changes Observed After Intervention

	Before %	After %	% Change
Knowledge of medications	74	84	+13.5
Weigh regularly	46	76	+65
Check legs for swelling	70	84	+20
Take note of breathing	60	72	+20
Do none of the above	12	2	-83.3
HF self management	36	48	+ 33

CNS Input

- CNS had motivated clients to make lifestyle changes
- CNS helped with other problematic health issues
- 90% appreciated CNS home visit
- Telephone contact - most common communication
- 60% felt clinic attendance of benefit to their families



Summary of Main Outcomes

- Service acceptable to clients and key stakeholders
- Improved access and communication processes
- All initial service indicators achieved
- Improved self-management
- Management of HF clients in primary care well supported
- Service roll-out to central Waikato, Thames-Coromandel, Huntly-Ngaruawahia



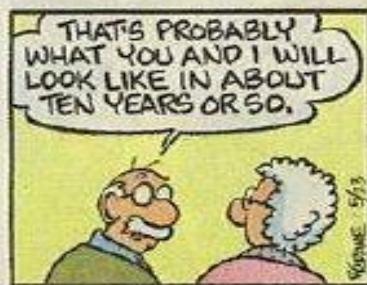
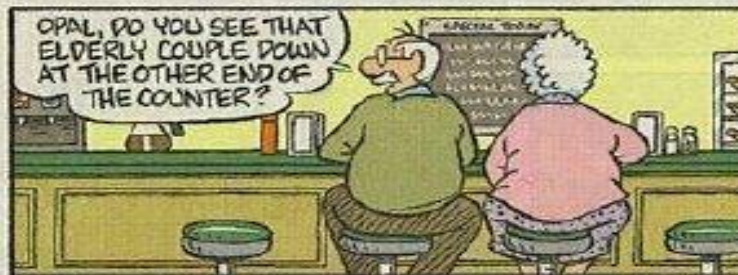
Five Years On - CNS Patient Management

- Primarily nurse-led clinic focus, with cardiologist input as required.
- Community specialist outpatient clinics 3-4 x year
- Modes of CNS interaction
- Symptom monitoring
- Ordering and monitoring of blood results
- Optimisation of HF medication regime

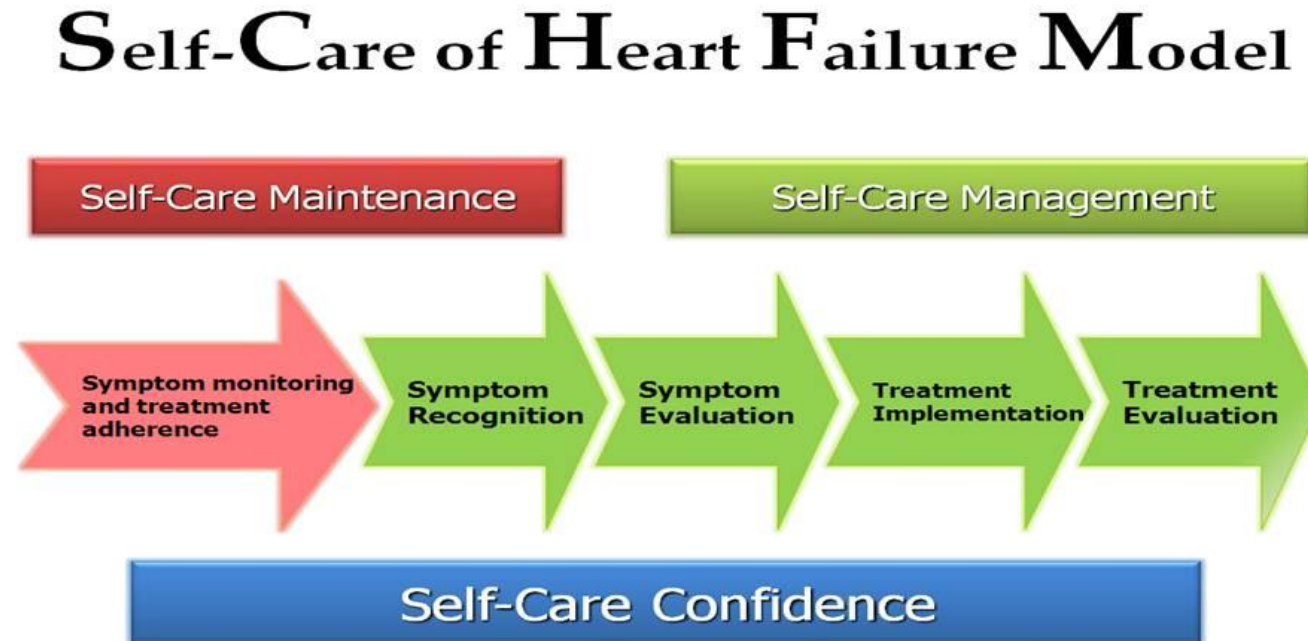
Initial Assessment

- **TRIAGE** - do they need to be seen by the service
- Review referral information and hospital records
- If patient not already known, telephone triage and assessment
- Do they need further tests?
e.g. NTproBNP, spirometry, U&E, CBC

PICKLES
BY
BRIAN CRANE



Self- Care Of Heart Failure Model



Riegel et al., 2003

Evidence

- All-cause hospitalisation
- Mortality
- Cost of care
- Quality of life

AHA Scientific Statement

State of the Science

Promoting Self-Care in Persons With Heart Failure A Scientific Statement From the American Heart Association

Barbara Riegel, DNSc, RN, FAHA, Chair; Debra K. Moser, DNSc, RN, FAHA;
Stefan D. Anker, MD, PhD; Lawrence J. Appel, MD, MPH, FAHA;
Sandra B. Dunbar, RN, DSN, FAHA; Kathleen L. Grady, PhD, APN; Michelle Z. Gurfitz, MD;
Edward P. Havranek, MD; Christopher S. Lee, PhD, RN; JoAnn Lindenfeld, MD, FAHA;
Pamela N. Peterson, MD, MSPH; Susan J. Pressler, DNS, RN, FAHA;
Douglas D. Schocken, MD, FAHA; David J. Whellan, MD; on behalf of the American Heart
Association Council on Cardiovascular Nursing, Council on Clinical Cardiology, Council on Nutrition,
Physical Activity, and Metabolism, and Interdisciplinary Council on Quality of Care and
Outcomes Research

Self-care is advocated as a method of improving outcomes from heart failure (HF), the final common pathway for several prevalent illnesses, including hypertension and coronary artery disease. HF is widespread in aging populations across the world.¹ The burden of HF is manifested in poor quality of life (QOL),²⁻³ and early mortality.⁴ In addition, there are >3 million ambulatory care and emergency department visits⁵ and well over 1 million hospitalizations for HF in the United States annually,⁶ which contributes to the exorbitant costs associated with HF. Much of this healthcare utilization is thought to be preventable if patients engage in consistent self-care.^{7,8}

This scientific statement seeks to highlight concepts and evidence important to the understanding and promotion of self-care in persons with HF. Specifically, the document describes what is known about (1) the self-care behaviors required of HF patients, (2) factors that make self-care challenging for patients, (3) interventions that promote self-care, and (4) the effect of self-care on HF outcomes. The review ends with evidence-based recommendations for clinicians and direction for future research.

Self-Care Defined

Self-care is defined as a naturalistic decision-making process that patients use in the choice of behaviors that maintain physiological stability (symptom monitoring and treatment adherence) and the response to symptoms when they occur.⁹ The term *naturalistic decision making* is used to describe how people make decisions in real-world settings. Naturalistic decision makers focus on process rather than outcomes, make decisions based on the situation, let the context influence their decision-making processes, and base practical decisions on the information available at the moment.¹⁰

In HF, self-care maintenance requires following the advice of providers to take medications, eat a low-sodium diet, exercise, engage in preventive behaviors, and actively monitor themselves for signs and symptoms. Self-care management refers to decision making in response to signs and symptoms. In HF, self-care management requires that patients recognize a change (such as increasing edema), evaluate the change, decide to take action, implement a treatment strategy (eg, take an extra diuretic dose), and evaluate the response to the treatment implemented. Self-care is not

Riegel et al., 2009

Influencing Factors

- Ability to incorporate activities into daily life/ routine
- Frailty, impaired cognition, co-morbidities
- Psychosocial factors: depressive symptoms, social isolation
- Socio economic factors: health providers, location of services



Riegel et al 2012; Lainscak et al 2010

What It All Means In Practice



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Riegel et al 2012; Lainscak et al 2010

Improving Self-Care In Heart Failure

- Skill development
- Behaviour change
- Family support
- Systems of care



Riegel et al 2009

How Do We Evaluate ?

- The self-care heart failure index (SCHFI)
- European HF Self-care behaviour scale (EHFScB-9)
- Patient Health Questionnaire (PHQ9)



Riegel et al 2009; Jaarsma et al 2009;

	Never or rarely	Sometimes	Frequently	Always or daily
1. Weigh yourself?	1	2	3	4
1. Check your ankles for swelling?	1	2	3	4
1. Try to avoid getting sick (e.g., flu shot, avoid ill people)?	1	2	3	4
1. Do some physical activity?	1	2	3	4
1. Keep doctor or nurse appointments?	1	2	3	4
1. Eat a low salt diet?	1	2	3	4
1. Exercise for 30 minutes?	1	2	3	4
1. Forget to take one of your medicines?	1	2	3	4
1. Ask for low salt items when eating out or visiting others?	1	2	3	4
1. Use a system (pill box, reminders) to help you remember your medicines?	1	2	3	4

What Does The Future Hold?

- Improved collaboration with general practice team
- Future screening for at risk population
- Expansion of WIHFS nurse-led service
- Increased advocacy of patient self management by all health professionals

Thank you!

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