

Heart Education and Self-Management

Aims of module

- To facilitate discussion of self-management techniques and build self-efficacy.
- To outline the basic principles of the anatomy and physiology of the heart and how this relates to participants' own condition.

Logic

It is well known that cardiac patients leave hospital with information deficits.¹ CR provides the opportunity to deliver patient education about disease management, introduce self-management strategies and build self-efficacy.

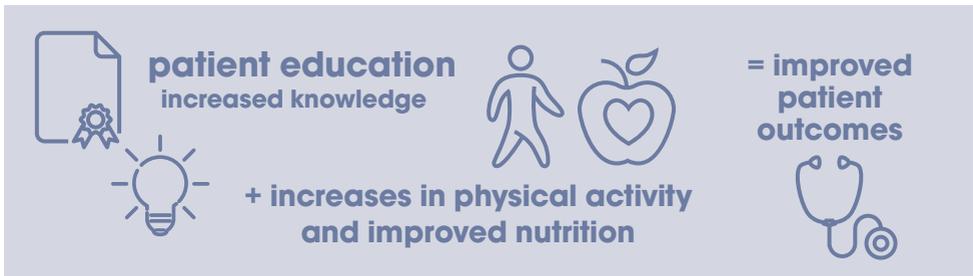
Heart Education and Self Management Best Practice Statement 1

Educate CR participants about self-management strategies

NHMRC level of evidence: Expert Opinion

Example content:

- Explain self-management and its importance in both management and prevention of cardiovascular disease.
- Encourage CR participants to identify challenges to managing their health that may be related to their disease or condition.²
- Show participants how to act on identified challenges.
- Encourage participants to formulate their own short-term action plans and use the action plans provided throughout the program.³
- If capacity exists, use cognitive behavioural therapy and motivational interviewing to assist CR participants with self-management.⁴



Rationale: Self-management education gives people problem-solving skills, allowing CR participants to identify problems and take action.² Examples of self-management actions include taking medication, participating in physical activities or self-weighing. CR participants require knowledge of cardiovascular anatomy and disease to engage in self-management.^{5,6}

The American Heart Association (AHA) conducted an integrative review on participant education and self-management and provided recommendations.⁴ In terms of content and delivery, AHA recommends self-management education be continual and that “brief, tailored interventions can be effective for follow-up to support patient engagement in self-management” (p. 17).⁴

A wealth of literature covers self-management in heart failure. This literature demonstrates that targeted self-management programs for patients with heart failure decrease hospital readmissions.⁷ Delivering interventions via structured telephone support or non-invasive home telemonitoring also improved heart failure knowledge and self-care behaviours significantly.⁸

Heart Education and Self-Management Best Practice Statement 2

Give CR participants education, tailored to their condition if possible, about:

- anatomy and physiology of the heart
- return to normal activities
- risk factors for secondary prevention in heart disease
- action plans chest pain management or a heart failure management plan.

NHMRC level of evidence: Level I

Example content for basic anatomy and physiology of the heart:

- Educate CR participants (depending on their individual needs) about the anatomy and physiology of the heart and heart function.
- Explain how heart anatomy and physiology relates to the participant’s own cardiac condition and cardiovascular disease.

Example content for return to normal activities:

- Develop an outline of timelines for return to normal activities (return to work, gardening, cleaning, etc.) relevant to the participant’s condition or procedure.
- Identify precautions relevant to the participant’s condition or procedure.

Example content for modifiable and non-modifiable risk factors:

- Introduce the participant to risk factor management, distinguishing modifiable risk factors and actions that can be taken to address them (increasing self-efficacy).

Risk factor management is also covered in depth in other modules (healthy eating and weight management, tobacco cessation and alcohol reduction, psychological wellbeing).

Example content for chest pain management

- Ensure CR participants, if applicable, have a chest pain management action plan.⁹
- Include education on:
 - chest pain and symptoms (not always the same for repeat events)¹⁰
 - rest and self-administration of prescribed short-acting nitrates
 - calling Triple Zero (000) for an ambulance if symptoms are severe, worsen quickly or last for 10 minutes or more.

Example content for heart failure management

- Ensure CR participants, if applicable, have a heart failure management action plan.¹¹
- Include education on:
 - everyday activities: measuring daily weight, restricting fluid, taking medication, being physically active, calling for medical assistance if required
 - signs and symptoms that require a doctor's assessment (i.e., change in weight, change in symptoms)
 - an action plan for angina.

Rationale: The challenge with patient education literature is the differing nature of interventions trialled and the lack of adequate description.^{4,12,13} This makes it difficult to form strong evidence-based recommendations about intervention type, method and duration.

One Cochrane review has examined patient education in the management of coronary heart disease (CHD).¹² While there was no improvement in recurrent myocardial infarction (fatal or non-fatal), total revascularisations or hospitalisations, there was some evidence of a reduction in subsequent cardiovascular events and that education-based interventions improve health-related quality of life. The authors concluded that education should be included in comprehensive CR programs in addition to exercise and psychological interventions.

Another recent systematic review found that patient education for cardiac patients increases knowledge, especially about medication and action in response to cardiac symptoms. Increases in physical activity and improved nutrition were also observed.¹³

Resources

- National Heart Foundation chest pain management action plan
https://www.heartfoundation.org.au/images/uploads/main/Your_heart/Heart_Attack_Action_Plan.JPG
- National Heart Foundation “Living well with heart failure- Information to help you feel better” (including action plan)
https://www.heartfoundation.org.au/images/uploads/publications/Living_well_with_heart_failure_-_Information_to_help_you_feel_better.pdf
- Education topics (Heart Online)
<https://www.heartonline.org.au/articles/patient-education/education-topics>
- Education topics for heart failure (Heart Online)
<https://www.heartonline.org.au/articles/patient-education/education-topics-for-heart-failure-education>
- Motivational interviewing (Heart Online)
<https://www.heartonline.org.au/articles/behaviour-change/supporting-behaviour-change#motivational-interviewing>

References

1. Cartledge S, Feldman S, Bray JE, Stub D, Finn J. Understanding patients and spouses experiences of patient education following a cardiac event and eliciting attitudes and preferences towards incorporating cardiopulmonary resuscitation training: A qualitative study. *J Adv Nurs*. 2018 May;74(5):1157–69.
2. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient Self-management of Chronic Disease in Primary Care. *JAMA*. 2002 Nov 20;288(19):2469–75.
3. Bandura A. *Self-efficacy: The exercise of control*. New York, NY, US: W H Freeman/Times Books/ Henry Holt & Co; 1997. ix, 604. (Self-efficacy: The exercise of control).
4. Barnason S, White-Williams C, Rossi LP, Centeno M, Crabbe DL, Lee KS, et al. Evidence for Therapeutic Patient Education Interventions to Promote Cardiovascular Patient Self-Management: A Scientific Statement for Healthcare Professionals From the American Heart Association. *Circ Cardiovasc Qual Outcomes*. 2017 Jun;10(6).
5. Gruman J, Von Korff M. *An Indexed Bibliography on Self-management for People with Chronic Disease*. Center for the Advancement of Health; 1996. 242 p.
6. Higgins R, Murphy B, Worcester M, Daffey A. Supporting chronic disease self-management: translating policies and principles into clinical practice. *Australian Journal of Primary Health*. 2011;18(1):80–87.

-
7. Jovicic A, Holroyd-Leduc JM, Straus SE. Effects of self-management intervention on health outcomes of patients with heart failure: a systematic review of randomized controlled trials. *BMC Cardiovascular Disorders*. 2006 Nov 2;6:43.

 8. Inglis SC, Clark RA, Dierckx R, Prieto-Merino D, Cleland JG. Structured telephone support or non-invasive telemonitoring for patients with heart failure. In: *The Cochrane Library* (Internet). John Wiley & Sons, Ltd; 2015 (cited 2018 Jul 10). Available from: <http://cochranelibrary-wiley.com/doi/10.1002/14651858.CD007228.pub3/full>

 9. Heart Foundation. Heart Attack Action plan (Internet). (cited 2018 Jul 10). Available from: https://www.heartfoundation.org.au/images/uploads/main/Your_heart/Heart_Attack_Action_Plan.JPG

 10. Strömbäck U, Engström Å, Lundqvist R, Lundblad D, Vikman I. The second myocardial infarction: Is there any difference in symptoms and prehospital delay compared to the first myocardial infarction? *European Journal of Cardiovascular Nursing*. 2018 May 11;147451511877739.

 11. Heart Foundation. Living well with chronic heart failure (Internet). (cited 2018 Jul 10). Available from: https://www.heartfoundation.org.au/images/uploads/main/Your_heart/Heart_Attack_Action_Plan.JPG

 12. Anderson L, Brown JP, Clark AM, Dalal H, Rossau HK, Bridges C, et al. Patient education in the management of coronary heart disease. In: *The Cochrane Library* (Internet). John Wiley & Sons, Ltd; 2017 (cited 2018 Jul 9). Available from: <http://cochranelibrary-wiley.com/doi/10.1002/14651858.CD008895.pub3/full>

 13. Ghisi GL de M, Abdallah F, Grace SL, Thomas S, Oh P. A systematic review of patient education in cardiac patients: Do they increase knowledge and promote health behavior change? *Patient Education and Counseling*. 2014 May;95(2):160–74.
-

Terms of use: This material has been produced by the National Heart Foundation of Australia (Heart Foundation) for the information of health professionals. The Heart Foundation does not accept any liability, including for any loss or damage, resulting from the reliance on the content, or its accuracy, currency or completeness. Please refer to the Heart Foundation website at www.heartfoundation.org.au for Terms of Use.

©2019 National Heart Foundation of Australia ABN 98 008 419 761



This guide was developed jointly by the Heart Foundation and Institute for Physical Activity and Nutrition (IPAN) at Deakin University as part of the Development of Standardised Curriculum for Cardiac Rehabilitation project, funded by Safer Care Victoria.

Funded by



This resource was developed in collaboration with

