

## Using the Heart Wise™ Dietary Habits Questionnaire as a tool for nutrition education at cardiac rehabilitation in a public hospital.

Helen Porteous\*, Louise Cooney, Rosemary Robinson



## Background

- Evidence supports the efficacy of intensive nutrition education in producing positive and sustained changes in the eating patterns of patients attending cardiac rehabilitation programs (CRPs) <sup>1</sup>
- Identifying CRP patients requiring intensive nutrition counselling is time consuming
- The HeartWise™ Dietary Habits Questionnaire (DHQ) <sup>2</sup> is a validated screening tool for use in CRPs

1. National Heart Foundation, Nutrition Recommendations for Cardiac Rehabilitation, 2002  
2. Development and validation of the Diet Habits Questionnaire for use in cardiac rehabilitation. McKellar S, Horsley P, Pullen M, Vandesse P, Clarke C, Callum H, Bauer J. Submitted for publication in 2007.

## Aim:

To report on the use of the DHQ in CRP as a

- method of assessing dietary habits prior to attending CRP (Phase 2)
- screening tool to identify individuals needing intensive nutrition counselling from the CR Dietitian
- guide for customising nutrition education for groups & individuals
- way of monitoring dietary change in patients post CRP

## Ticker Club

Princess Alexandra Hospital (PAH),  
Brisbane

- Ticker Club (phase 2 CRP)  
- 4 week program with 8 educational & exercise sessions
- ~250 patients/year
- Low to middle class socio- economic group
- Culturally & linguistically diverse backgrounds
- P/T CR Dietitian



## Prior to DHQ

- The CR Dietitian conducted a 1 x 1 hour group nutrition education session plus an optional supermarket tour
- At assessment for CRP – 97% declined the offer for individual nutritional counselling
- No effective assessment of dietary habits prior to commencing CRP
- No screening of patients who need more intensive nutrition counselling
- No monitoring of dietary change post CRP

## What is recommended for CRP - 2002 -NHF

- A single session is insufficient for sustained dietary change
- Some patients need more nutrition intervention than group programs can provide

## What we do now with DHQ

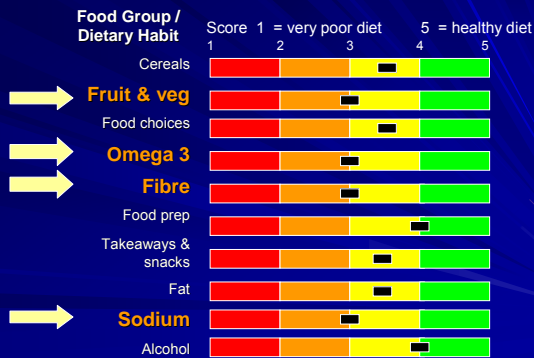
- Patients are given the DHQ at assessment to be returned at their first Ticker club session
- Collected & scored by the CR Dietitian
- DHQ is used to:
  - assess dietary habits prior to starting the Ticker club
  - screen patients who need intensive nutrition counselling
  - customise nutrition education for groups & individuals
  - monitor dietary change post CRP

## Characteristics of pts who completed DHQ prior to Ticker club

(68% pts complete DHQ)

Males	Females
284 (81%)	67 (19%)
Av Age 61yrs	Av Age 60yrs
Av Waist 101cm (overweight) Ideal ≤ 94cm	Av Waist 94cm (obese) Ideal ≤ 80cm

## Results - Dietary habits prior to CRP



## Results Dietary habits prior to Ticker club

### What pts reported eating

1 serve fish/wk  
2 serves fruit/wk,  
1-2 serves veges/day.  
Use of salt at the table  
& in cooking & salty  
foods

### What is recommended

2 fish serves/ wk  
2 serves fruit/d  
5 serves veges/day  
Avoid use of salt at the  
table & in cooking &  
salty foods

## Using the DHQ as a screening tool

- CR Dietitian identifies pts who require intensive nutrition counselling (17% of total) if they:
  - scored poorly on at least 2 dietary behaviour/food group categories and have at least 2 CVD risk factors
  - or have all 4 CVD risk factors
- These pts are offered intensive individual nutrition counselling with CR Dietitian
- Pts requiring continuing weight loss are then referred to outpatient weight management clinic for further nutrition counselling with a Dietitian
- Those not requiring intensive counselling are given feedback by the CR Dietitian including appropriate NHF & PAH nutrition information sheets

## Using the DHQ for customising group nutrition education

- The group nutrition education sessions are modified to address the poorer dietary trends identified from the DHQ results
- For example:
  - Emphasising increased consumption of fruit, vegetables, fibre & 2 fish serves/week
  - Increasing frequency & marketing of supermarket tours to improve attendance & hence label reading especially for reduction of salt intake<sup>3</sup>

## Using the DHQ to monitor dietary change in patients post CRP

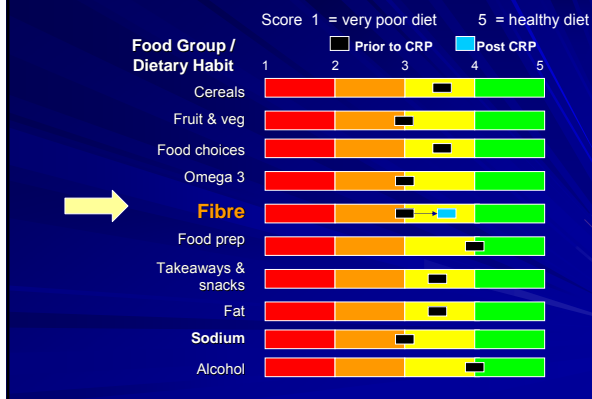
- 6 months post CRP patients are phoned for review
- Pts who participated in review are sent a DHQ \* & asked to complete it and return it in the reply paid envelope to the CR Dietitian
- 70% completed both baseline and review DHQ

\* Ethics approval

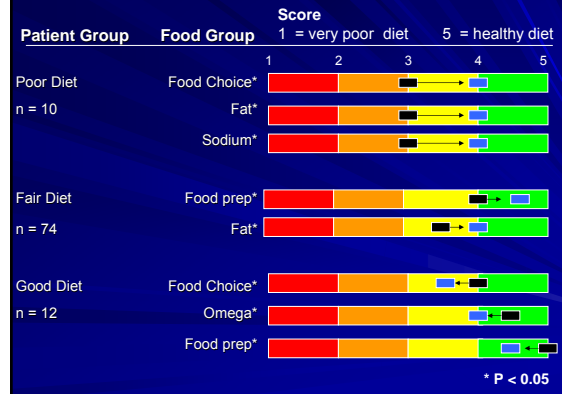
## Characteristics of pts who completed DHQ at review

	males	females
	79 (82%)	17(18%)
Age (yrs)	65	65
Waist	NA	NA

## Results- Dietary habits prior & post CRP -



## Results - Dietary habits prior & post CRP



## Conclusion

Administering the DHQ

- Ensures that pts attending CRP have individualised dietary intervention

The DHQ assists in -

- Assessing individuals dietary habits
- Screening (identification of patients requiring intensive nutrition)
- Customisation of group & individual nutrition education
- Encouraging dietary changes already made
- Monitoring dietary change

## Limitations of DHQ

- Questionnaire
- Interpretation of questions (accuracy)
- Validation (monitoring change)
- Portion size not considered

## Future

- Assess if intensive intervention makes a difference
- Include anthropometric, biochemical & blood pressure data in review
- Implement DHQ on admission to hospital
- Use for proposed home programme

## Acknowledgements

- |                                    |  |
|------------------------------------|--|
| ■ Participants                     | ■ Sharon Chatterton<br>(Physiotherapist) |
| ■ Sandy McKellar<br>(Nurse)        | ■ Meredith Ruge<br>(Nurse)               |
| ■ Tony Cassar<br>(Physiotherapist) | ■ Qi Gu<br>(Physiotherapist)             |
| ■ Maree Ferguson<br>(Dietitian)    | ■ Vivian Bryce<br>(Nurse)                |