

Heart Manual Training

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Remote training top tips



- Here are a few suggestions to make sure you get the most out of the remote training:
- Please sit in a comfortable position which is close to the screen so that you can be seen and heard clearly.
- Ensure that you know how to switch on/off your microphone and adjust volume control and also adjust camera angle.
- If available, please use headphones as this cuts down on background noise and you can hear others more clearly.
- In discussions please raise your hand if you want to ask a question or make a comment: this allows us to see who is speaking. (there may be a time delay). It also reduces the chance of speaking over someone else.
- During the slide presentation please just speak to ask q's/comment as I cannot always see the hands when the slide is up in share screen mode.
- The chat function is not always available to everyone on Teams so we do not routinely use this.



Housekeeping



@TheHeartManual





Heart Manual Training

Aims:

- To promote effective clinical practice by providing the theoretical and practical knowledge base to enhance and extend competencies of the practitioner in the delivery of the Heart Manual training programmes.
- To teach facilitators the importance of clinical and psychological factors in the long-term management of patients with Coronary Artery Disease and to elicit and promote these in clinical practice.

Psychology Training Day Aims

- To promote understanding of the key psychological issues in coronary artery disease (CAD)
- To provide theoretical and practical knowledge of the cognitive-behavioural approach to address such issues
- To demonstrate how the Heart Manual can be used to promote physical and psychological well-being among cardiac patients

Psychology Day Learning Outcomes

Ability to:

- outline the development and principles of the Heart Manual
- discuss the main psychological issues in CAD.
- use the Heart Manual to apply cognitive-behavioural methods for the promotion of well-being among CAD patients.
- use the manual to deal with complex scenarios and enhance patient self-management of CAD.
- share how other health professionals promote patient self-management of CAD.

Content

- Heart Manual Development & evidence
- The five steps to success
- Psychology of illness/ Levanthal's model
- Cardiac Beliefs
- CBT model
- Anxiety

- DepressionRelaxation and BreathingHealth Behaviour Change
- Cognitive Function
- Psychology of pain
- Sex
- Sleep
- Fitting it all together

Development of the Heart Manual

The MI and Revascularisation **Editions**

• Part 1: Your Heart Condition: the facts & CD's (Q & A)



Week 1 Getting home - getting better

Week 2 Feeling better, smoking

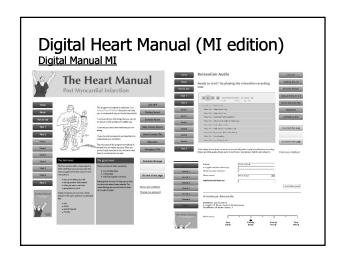
Week 3 Making progress, diet

Week 4 Getting better all the time, weight

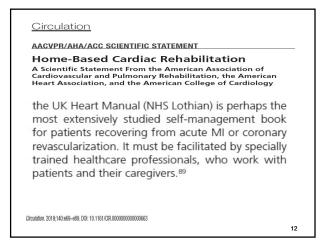
Week 5 Feeling more like yourself, exercise
Week 6 The end...and the beginning, blood pressure

Daily - Relaxation, Walking, Exercise and Activity record

· Part 3: Facts and advice to aid recovery!







NICE National Institute for Health and Care Excellence



Acute coronary syndromes

NICE guideline Published: 18 November 2020 www.nice.org.uk/guidance/ng185

Health education and information needs

- 1.8.19 Comprehensive cardiac rehabilitation programmes should include health education and stress management components. [2007]
- 1.8.20 A home-hased programme validated for people who have had an MI (such as NHS Lothian's heart manual) that incorporates education, exercise and stress management components with follow up by a trained facilitator may be used to provide comprehensive cardiac rehabilitation. [2007]

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MI Heart Manual

- · 176 post MI patients age <80
- Measures: HAD, GHQ, Self rated recovery, confidence, quality of life, contact with GP & re-admissions
- RESULT: Reduced anxiety & depression, fewer visits to GP and fewer hospital re-admissions up to 6 months after the MI

(Lewin et al, Lancet 1992)

Revascularisation Heart Manual



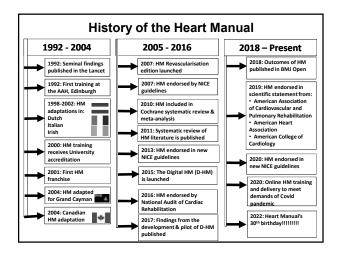
- 675 post MI, bypass and angioplasty patients <80
- Measures: SBP, DBP, total and HDL-cholesterol HAD, distance walked on Shuttle Walking Test (ISWT) and smoking cessation
- RESULTS: Reduced anxiety and depression, total cholesterol and improvements in smoking cessation and physical activity. Home-based and centre-based rehabilitation equally improve outcome at 6 months (Jolly, et al. 2007)

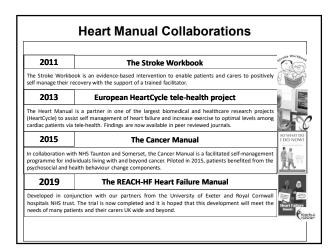
Digital Heart Manual



- Online version of the MI manual
- Evaluation to assess usability and acceptability of the digital format
- Patient representatives (n=17) and health professionals (n=11) previously familiar or unfamiliar with paper version
- Well structured, clearly presented and easy to use.
- Acceptable to all ages. Age not necessarily a barrier
- The Digital Heart Manual: A pilot study of an innovative cardiac rehabilitation
 programmme developed for and with users. Deighan C, Michalova L, Pagliari C,
 Elliott J, Taylor L, Randald H. Patient Education and Courseling, 2017. Accepted
 article: August 2017/olume 100, Issue 8, Pages 1598–1607. Available online
 ati: http://dx.doi.org/10.1016/j.psec.2017.03.014

Map of Heart Manual Sites Map of Heart Manual Sites On get Modellers Googe Modellers Googe Modellers





What are some of the factors that may affect a person's rehabilitation?

- Age (young angry, older less likely to drive, take less exercise)
- Gender -women less likely to attend CR
- Social deprivation (less likely to attend CR)
- Co-existing physical illness/severity of MI
- · Health and illness beliefs
- Intelligence / Education
- Past family history (lifestyle not genes empower the patient)
- Other people (family/workmates/neighbours)
- · Culture (cultural restrictions on exercise/diet)
- The Media

Principles of Heart Manual Intervention

- Focused on individualism, quality of life and reducing psychological morbidity
- Early intervention
- Verbal and written information
- Individualised advice
- Intervention for patient and family
- Patient self-monitors
- Pacing approach
- Pro-active continued follow-up

5 Steps to Success Step 1 • Build a rapport Step 2 • Think about CHD Step 3 • Think about the risk factors Step 4 • Set goals & pace Step 5 • Sum it up

Step 1: Build a rapport

- Engage with the patient
- Discuss your role as a facilitator
- Encourage partner's involvement
- Review the patient's & partner's experience
- Normalise the recovery process or reaction to condition
- Acknowledge any major concerns over recovery or reaction

Step 2: Think about CHD

- Review current understanding of the cause of the condition or event
- Note accurate responses & clarify misconceptions
- Outline the use of the HM (part 1, 2 & 3, CD's)
- Offer specific condition information & support

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Step 3: Think about the risk factors and motivation

- Review the patient & partners understanding of the modifiable & non-modifiable risk factors
- Note accurate responses & reinforce the benefits of changes already made
- Ask if the patient has any risk factors that they would like to address
- Offer risk factor information utilising the manual content

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Step 4: Set goals & pace

- Identify goals & prioritise
- Ask if they are ready to make a change (importance and confidence) focus on building confidence
- Identify targets by utilising the SMART goal setting principles
- Outline the principles of pacing scaling 1 10, "too easy too hard"
- Discuss a normal day, encourage the patient to identify pacing strategies (daily exercise, walking, relaxation and activity record)

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Step 5 Sum it up

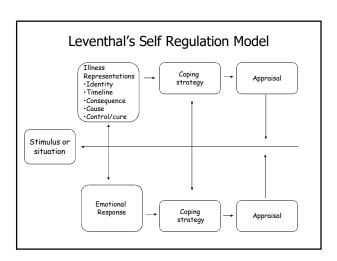
- Summarise the main points
- Identify daily objectives
- Reiterate the principles of pacing
- Highlight the importance of not sharing the manual with others with cardiac conditions
- Ensure the patient has had their concerns addressed
- · Arrange the next follow up

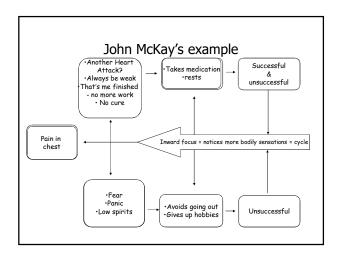
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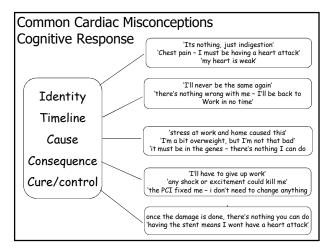
How People Respond to Illness (or the psychology of illness)

Self-Regulation Model (Levanthal 1980,1997)

- Provides framework to understand how people respond to illness
- Proposes two types of processes cognitive & emotional
- Cognitive response (illness representations) formed from knowledge they have about an illness or from their own experience of the illness
- Emotional response may be triggered depending on the illness representations
- Both processes influence the type of coping behaviours adopted







Emotional responses – Which emotion / which interpretation?

- · Anxiety Personal threat or danger, vulnerability
- •Depression Personal loss, anhedonia
- Anger Unfairness Someone has broken your rules
- Guilt You have broken your own rules
- •Denial Trying to protect yourself by refusing to accept the truth about something that's happened

It is possible that these meanings could be attached to the diagnosis of an illness such as CHD, resulting in these emotions, plus others

Influence of health beliefs in CHD

- Patients beliefs can influence their symptoms and effective rehabilitation Lewin 1997
- Illness beliefs before cardiac surgery predicted disability, QoL, and depression 3 months later, not mediated by illness severity Juergens et al 2010
- Beliefs before surgery strongly influence recovery Juergens et al 2010
- Possible to change functional outcome by changing health beliefs of MI patients Petrie et al 2002 Broadbent 2009

Cardiac misconceptions (or faulty beliefs)

- What are the most common cardiac misconceptions?
- Where do they come from?



"Stress itself is unlikely to have caused your heart attack, but...." p70

MI Manual

Stress affects lifestyle

- Alcohol
- Smoking
- Diet
- · Exercise habits
- · Illness itself is stressful
- No denying strong link between stress and CHD but factors above have more robust causal evidence, difficult to establish direct influence of stress on CHD
- Not helpful to blame stress but stress management is important for psychological and physical health

Challenging misconceptions

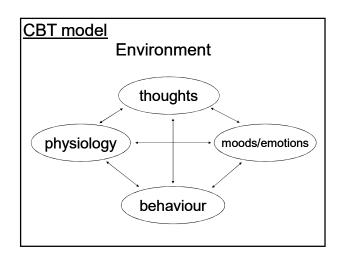


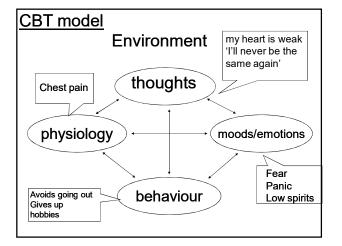
Challenging cardiac misconceptions/beliefs

- Direct challenge not always the best way
- Re-framing their beliefs the heart is a worn out battery but you charge it with activity not rest
- Socratic questioning use questions to lead someone to a different conclusion about their beliefs
- Patient not aware of their misconceptions need to pick up on casual comments

Cognitive Behavioural Theory

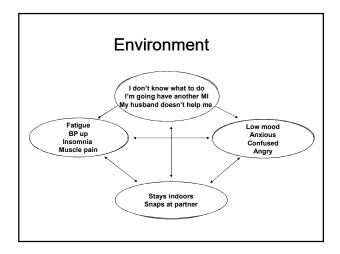
- Thoughts, emotions, behaviour, and biology and environment <u>can</u> interact in such a way to maintain dysfunctional moods and behaviour
- Cognitive behavioural approach to CR is that inaccurate beliefs lead to mistaken, although to the person logical, attempts to reduce risk
- In this approach we can intervene at all 5 levels but the emphasis is on thought and behaviour

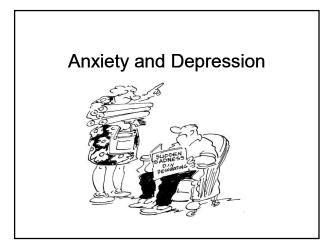


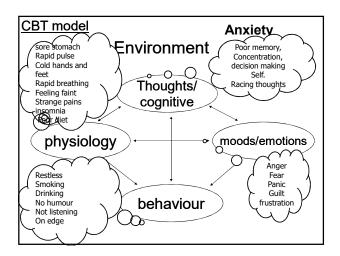


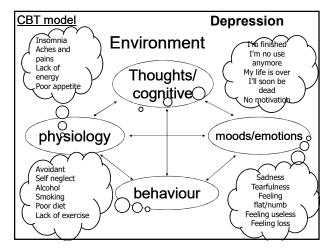
Case study

 Sue has had an MI 5 weeks ago she blames stress for her condition and is worried about going out on her own in case she has another heart attack. She is not sleeping well, aching all over and is angry with her partner and feels he is not supporting her. She misses her grandchildren who she used to look after on Friday's after school.









What are the symptoms of anxiety?

- Physiological cues palpitations, dizziness, shortness of breath, nausea, increased heart rate, 'butterflies' in stomach, headache, dry mouth, cold clammy hands and feet, tense sore muscles, diarrhoea, needing the toilet a lot
- Behavioural cues fidgeting, hesitating, avoidance, shaking, always rushing
- Cognitive cues fear of losing control, apprehension, impending doom, catastrophic thinking, loss of confidence etc.

What are the symptoms of depression?

· Biological symptoms

Sleep (over/under) tiredness, mood (diurnal variation), reduced/increased appetite, reduced activity

Psychological indicators

low self-esteem, loss of confidence, flat affect, suicidal/self- harm ideation, difficulty concentrating, negative thinking, feeling useless/inadequate/helpless/hopeless





- · Anxiety problems are common
- Anxiety describes all the feelings which we experience when we are stressed
- Involves both mind and body
- Anxiety is a normal healthy reaction but can become a problem!
- Anxiety disorder approx 15% in CHD population (Tully et al 2014)

What might cause a cardiac patient to become anxious?

- · CAD diagnosis
- · Being in hospital, treatment, health professionals
- · Being away from familiar surroundings
- Starting exercise
- Sex
- Confined space e.g. lift or aeroplane
- Chest sensations
- Return to the situation of the MI/shock shop/social gathering, being alone
- Return to activities -work (losing a job/income), marital strain/arguments

Phobias

- The place where the heart attack/shock happened
- Exercise
- Sleeping
- Shocks from ICD
- · Being away from home/phone/wife
- Aeroplanes,
- Lifts etc.

Low mood

- Normal reaction to a heart problem
- Usually will pass & is not severe
- Some patients may have more persistent or severe reaction (depression)

Depression

Depression serious problem in CAD, predicts: re-infarction and mortality

(Frasure-Smith et al., 1993)

Prevalence of depression

- Depression 2-3 times more common in patients after an acute MI than in the general community
- Around 15% to 30% patients after MI meet
 Diagnostic and Statistical Manual of Mental Disorders criteria for major depression greater
 proportion show elevated level of depressive
 symptoms
- Women twice as likely than men to experience depression (young women particularly affected)

Vaccarino et al, European Heart Journal, 2019

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Feeling losses

- · Often related to cardiac misconceptions
- Loss of health
- · Not worthy anymore/useless/finished
- · Loss of love
- · Loss of independence
- · Depression serious problem in CAD, predicts: re-infarction and mortality

(Frasure-Smith et al., 1993)

Psychological distress risk factor for:

- Early mortality (Sirois & Burg 2003)
- Poor return to work (O'Neil et al 2010)
- Low Q o L & increased disability (de Jong et al
- Medication adherence (Gehi et al 2005)
- Increased hospital readmissions (Havik & Mæland 1990)

Screening for anxiety and depression

Clinical impression plus screening tool e.g.

- Patient Health Questionnaire (PHQ-4 and 9)
- Generalised Anxiety Disorder-7 (GAD-7)
- Beck Depression Inventory-II (BDI-II)
- Hospital Anxiety and Depression Scale (HADS)
- DSM IV criteria
- The ICD-10 Classification of Mental and Behavioural Disorders (WHO 1992)
- Distress thermometer (Roth et al 1998)

Patient Health Questionnaire: 2 Items

Over the past 2 weeks, how often have you been bothered by any of the following problems?

- 1. Little interest or pleasure in doing things
- · 2. Feeling down, depressed, or hopeless
- If the answer is "yes" to either question, then refer for more comprehensive clinical evaluation by a professional qualified in the diagnosis and management of depression or screen with PHQ-9.

American Heart Association Depression and Coronary Heart Disease (*Circulation*. 2008;118:1768-1775)

Patient Health Questionnaire: 4 Items

Over the <u>last 2 weeks</u> , how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Little interest or pleasure in doing things	0	1	2	3
4. Feeling down, depressed, or hopeless	0	1	2	3

The PHQ-4 total score ranges from 0 to 12. The categories of psychological distress are: None 0-2

Mild Moderate 6-8

Items 1 & 2 measure anxiety and depression is measured by the sum of items 3 $\,$ & 4. On each subscale, a score of 3 or more is considered to be positive for psychological distress and referral to suitably qualified professional should be

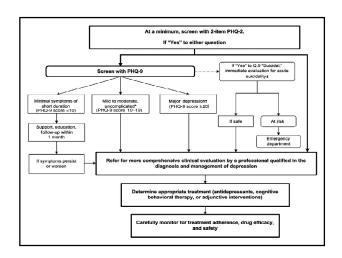
Table 2. Patient Health Questionnaire-9 (PHQ-9)* Depression

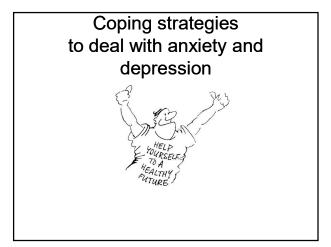
Over the past 2 weeks, how often have you been bothered by any of the

- following problems? (1) Little interest or pleasure in doing things.
- (2) Feeling down, depressed, or hopeless.
 (3) Trouble falling asleep, staying asleep, or sleeping too much.
- (4) Feeling tired or having little energy.
- (5) Poor appetite or overeating.
 (6) Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down.
- (7) Trouble concentrating on things such as reading the newspaper or watching television.
- (8) Moving or speaking so slowly that other people could have noticed. Or being so fidgety or restless that you have been moving around a lot more than usual. (9) Thinking that you would be better off dead or that you want to hurt yourself in some way.

*Ouestions are scored: not at all 0: several days 1: more than half the Days 2; and nearly every day 3. Add together the item scores to get a total score for depression severity.

AHA, Depression and Coronary Heart Disease Circulation. 2008;118:1768-1775

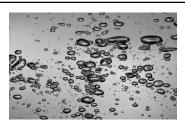




Training in coping strategies

To include:

- Controlled breathing
- Relaxation
- Distraction techniques
- Problem solving
- Challenging dysfunctional thoughts
- · Positive self-talk
- Plan activities for each day



Controlled breathing - stomach not chest

Relaxation Exercises Relaxation audio

- Relaxation is essential to HM
 - Recommended by SIGN 150
- Should be seen as a skill to be practiced, not only used in times
 of stress
- Tips for relaxation:
 - Protected time (no interruptions)
 - Daily or 2 x daily
 - Practice when alert
 - Not music
 - Encourage generalisation
 - Written prompt
 - Not in car
 - Occasional panic reaction
 - HM also provides online relaxation audio and APP (HM Relax)

- Patients who practice supervised relaxation, compared to usual care or exercise therapy alone were seen to benefit from:
 - Reduced resting heart rate
 - Reduced frequency of angina
 - Reduced anxiety
 - Improvements regarding return to work and less frequent cardiac events and cardiac death
- Less structured relaxation or around 3 hours practice is not as beneficial as full relaxation therapy
- Relaxation, meditation and guided imagery (or combinations) provide:
 - · Greater relief from dyspnoea and sleep disturbance
 - Improvement to pain and fatigue

van Clübonom J. Witte A. Relaxation therapy for rehabilitation and prevention in ischaemic heard disease: a systematic review and meta-analysis. Eur J Cardovasc Prev Rehabil 2005;120):193-2022 Keelekationom K.J. Bratzlak LC. A systematic review of relaxation, mediation, and guided imageny strategies for symptom management in heart fishers. J Cardovasc Nars **Problem solving** - control over workload, deadlining, saying 'no' etc.

Distraction techniques - any activity mental or physical which stops your thinking process
e.g visualisation.....



Challenging dysfunctional thoughts



Thinking Errors

- All or nothing thinking
- Over-generalisation
- Catastrophising
- Exaggerating
- · Ignore the positive
- Jumping to conclusions



Challenging Negative Thinking

- Taught to recognise inaccurate and unhelping thoughts
- Why do you think that?
- What is the evidence?
- What alternative views are there?
- Is my thinking distorted?
- What action can I take?

Positive self-talk

- E.g there are many things I can do to fight coronary heart disease
- Exercise, going out, having fun are very important

Daily Record of Dysfunctional Thoughts

Situation	Emotion	Automatic	Rational	
		Thoughts	Response	



Plan activities for each day

Health Behaviour Change



Motivational Interviewing

- "A clinical style for eliciting from patients their own good motivations for making behaviour changes in the interest of their health" Rollnick et al 2008:6
- Spirit: collaborative, evocative, honouring patient autonomy

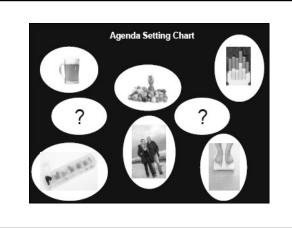
Information exchange

- Ask permission
- <u>Elicit</u> patients' knowledge, behaviour & beliefs (i.e.: an average day)
- <u>Provide</u> use neutral approach 'What we tend to advise is' rather than 'You should......'
- <u>Summary</u> 'What do you think about what we have discussed today?'

Motivational Interviewing

Some micro-skills: O-A-R-S

- O = Open ended questions (i.e. encourage patient to explain, describe and talk about change e.g. use 'what' & 'how')
- A = Affirmations (acknowledge patient effort)
- R = Listen & reflect
- S = Summarise



Assessing readiness to change

- Value attached to behaviour (Importance)
- Perceived barriers & opportunities and self-efficacy beliefs re changing behaviour (Confidence)

Scaling for Change

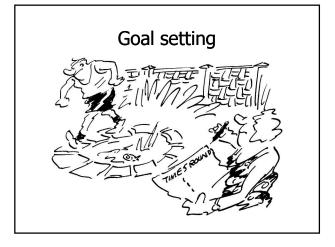
Importance and Confidence

The Ruler: 1 _____10

- How important is it that you make this change? (on a scale of 1-10)
- How confident that you can make this change? (on a scale of 1-10)

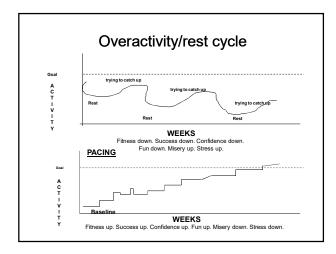
Managing Resistance

- Meet resistance with non-resistance
- Use reflection / build rapport
- Give choice and control
- Assess importance and confidence (use 1 – 10 scale)
- · Back off and come alongside!



Setting SMART goals

- S pecific
- M easurable
- A chievable
- R ealistic
- T imely



Pain

- concerns about getting addicted to medication
- keeping pain less than 4

Interferences post bypass:

- general activity
- mood
- · relations with others
- sleep
- coughing and sleeping

Parry et al 2010



CABG & Pain

- Sleepnessness, nausea, poor appetite chest incision pain approximately ¼ people still reported significant pain at 9 weeks.
- Number of problems correlated sig with depression at 12 weeks.
- Women more pain than men possibly explained by their early return to household and caregiving activities
- Staging of household activities, vacuuming, hanging out washing, & carrying young children.

Gallagher 2004 Beckie 2014 Biørnnes 2016

Pain

Type and degree of pain is affected by:

- Cardiac beliefs
- · Anxiety and depression
- Knowledge/education
- · Attitudes towards the use of medication
- · Patient's expectations
- Strategies to cope with pain
- · Not just analgesics ...
- Relaxation, visualisation, positive thoughts, goal setting and pacing

Cognitive Function Impairment &



- Cognitive function learning, memory, executive functioning (decision making etc) focused attention, psychomotor processing speed
- Often result of CAD
- CABG patients may need to refer to the Heart Manual more often because of poorer concentration after surgery. Improves with time after surgery
- However, marked cognitive deficits immediately post op have more likelihood of deficits 5 years on (Philips-Bute 2001)
- Difference not explained by on or off pump (Kozora et al 2010)
- Cerebral microembolization of solid or gaseous particles
- (Schwarz et al 2011, Stroobant 2017)

Distress & Cognitive Function

- Distress can be expressed as complaints about mild memory loss & poorer cognitive function (Khatri et al 1999)
- Strategies to cope with anxiety or depression can also be used to help cognitive function

Sexual issues



Discussion of sexual activity

Post MI few providers follow through:

- Assessment of patient understanding
- Provision of appropriate information
- Support for patients in resuming their sexual activity

Mosak & Steinke 2009

Common concerns re sexual activity

- · Notion that sexual activity can lead to another MI
- Although sexual activity may trigger MI relative risk is quite low (1% to 3%) & influenced by individual physical fitness
- Men report fear of resuming sexual activity within 1st 6 months post MI
- Associated with performance anxiety
- · Women also report anxiety & lack of information
- · Anxiety and cardiac symptoms reduce satisfaction
- · Lack of sufficient information a recurring theme

Mosak & Steinke 2009

Cardiovascular disease & sexuality

- Erectile dysfunction & heart disease share common risk factors such as hypertension & diabetes
- Sexual activity may trigger cardiac symptoms
- Cardiac medications can cause sexual problems (leading to patients considering stopping on own initiative)
- Wound healing after CABG need to avoid pressure on breastbone

Approaches for assessment

- First step to discuss sexual concerns may be most difficult one.
- "How is your sex life?" May be too direct for some.

Approaches with the most success include:

- Gradual approach
- Matter-of-fact approach
- Context approach
- Sensitivity approach
- Policy approach

Jaarsma et al 2010

- Gradual approach begins by asking more questions general concerns about the patient's relationship then proceeding to more sensitive topics
- Matter of fact approach uses experiences of other patients or evidence from research e.g "Many people have concerns about resuming sexual activity after a heart attack what concerns do you have? (thus normalising having concerns. If not sexually active this usually will be apparent in the answer)
- Context approach sex brought up in the context of exercise, or consequences of the disease, or in the topic of medications
- Sensitivity approach Addressing the difficulty of the subject – "some people feel that talking about sex is not easy. However for a lot of people this is an important subject in their life. Is it alright to ask you a few questions on the subject?"

 Policy approach – "In our team we think it is important to discuss sexuality and CHD with all our patients"

And last but not least

- Context of the Heart Manual while introducing the content and topics in the Heart Manual (in week 5 but can be highlighted earlier!)
- Or reviewing patient progress with sections of the Heart Manual
- Content of manual realistic and reassurring, gives advice on resuming activity after both MI and revascularistion.

- · Communication establish & maintain
- · Elicit & address fears and worries
- · Involve both partners where possible
- Pacing & goal setting (approach sex as an exercise to be gradually built up)
- · Positions change for comfort
- Challenge negative thinking about sexual activity
- Problems pre-dating CAD diagnosis = Refer on
- More physically active lower risk (Möller et al 2001)
- · Encourage to lead more physically active life

Sexual issues

- Loss of sex drive
- Lack of confidence
- Self image affected after treatment
- Embarrassment or fear of embarrassing patient
- Stress in relationships

Sleep problems



Influences On Sleep & Vice Versa

- Age
- · Co-morbid health conditions
- · Pre-operation/MI patterns
- Anxiety and depression (but lack of sleep can influence these)
- Treatment of sleep disorders may reduce depression or cognitive deficits

Good Sleep Routine

- Limit naps to no more than 30 mins
- Only sleep in bed
- No sleep no bed
- Set a morning alarm including weekends
- · Set bedtime routine

Patient Feedback

- Patient Questionnaire in paper manual (pp 167 & 168 MI version, and 171 & 172 Revasc version).
- Also in Digital versions Patient
 Questionnaire button on right of home
 screen (complete then press Submit).
- Patient feedback provides important information for the Heart Manual team to improve the service and update resources.

 $\frac{https://nhslothiansurveys.onlinesurveys.ac.uk/heartmanual-psychology}{}$

FEEDBACK QUESTIONNAIRE

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