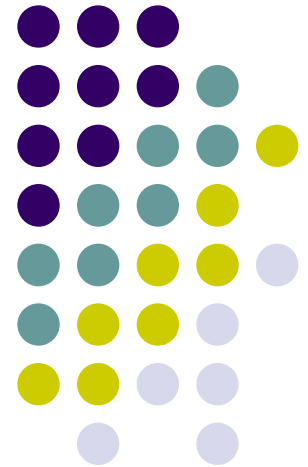
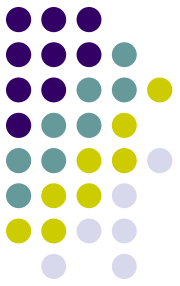


Practical Application of Psychology to Cardiac Rehabilitation

Presented by Dr. Julie O'Flaherty,
Senior Clinical Psychologist,
Cardiac Rehabilitation, Midland Regional
Hospital at Portlaoise (MRHP)



Cardiac Rehabilitation Psychology in Ireland



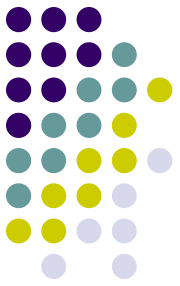
- 38 Cardiac Rehab sites in Ireland (IACR 2010)
- 11 have Psychology input –
part-time/full-time/sessional
- 5 Dublin hospitals (4 to 35 hours pw)
- 6 Outside Dublin (4 times per yr to 17.5 hrs pw)

(Review of CR Psychology in Ireland, Mater 2010)

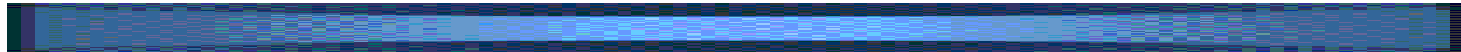


Psychology Service

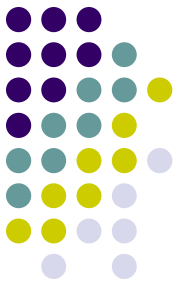
Cardiac Rehab MRHP



- 2 ½ days per week
- Available to cardiac patients attending MRHP
- Input to Phase 2 - Psychoeducation
- Input to Phase 3 – Psychoeducation to Group; One-to-one; Follow up post group as necessary



The Patients



- Snapshot of patients seen in a 10mth period from January 2009 to December 2009 (one to one consults)

- Method of referral
Self

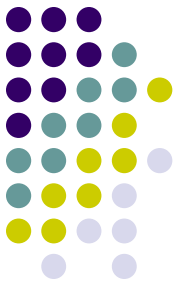


Staff – Occupational Therapist, Cardiac Rehab Coordinator, Staff Nurse, Consultants

- HADS (Hospital Anxiety and Depression Scales) cut-off '11+ requires review'

The Patients (cont'd)

Reasons for referral



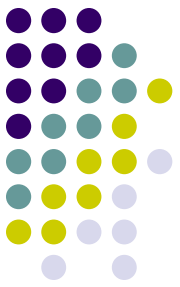
- **Cardiac**

MI, angioplasty, stents, angina, CABG, valve surgery/valve disease, paroxysmal atrial fibrillation, cardiomyopathy, congenital heart disease

- **Psychological**

stress (family, work, financial, health, marital/separation), bereavement, low mood/depression, anxiety, poor self-esteem, adjustment to illness, poor coping skills, PTSD



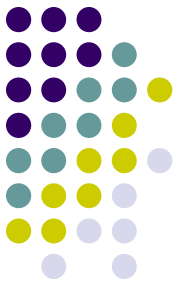
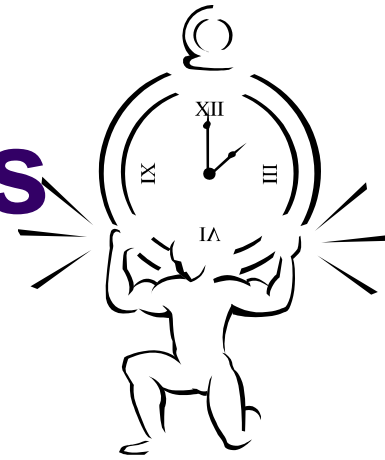


The Patients (cont'd)

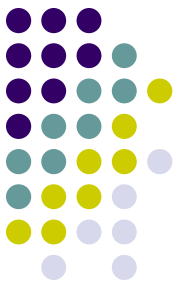
- Patients attending MRHP (N=34) plus MRHT patients (N=10) who were prepared to travel
- 32 Male/12 Female
- Age range 27-68 years
- Number of sessions – from once only to 17+, mean=4 times
- Liaison with other services (GP, Psychiatry Services, Adult Counselling service, OT)
- Onward referral (Local Psychiatry Service)



CVD and Stress



- Definition of stress
- Internal resources vs. External demands
- Chemistry of stress – biochemical changes, hormonal changes, metabolic changes, immune system....
- Resulting in raised cholesterol, blood pressure, heart rate, narrowing of the arteries....
- Stress = an imprecise term including depression, anxiety, social factors, life events.....



CVD and Depression

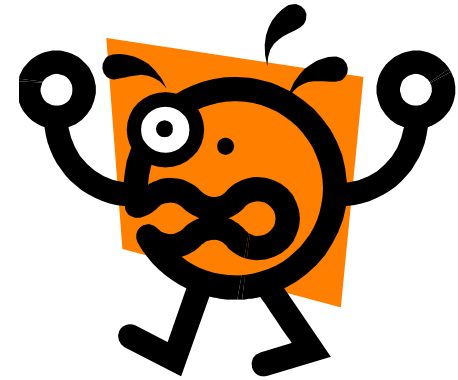


- Chicken and Egg situation
CAD can cause depression
Depression is an independent risk factor for CAD (SALT Study, ENRICHHD study data, Nurses Health Study...)
- Depression may increase risk of SCD
- Depression affects (unhealthy) lifestyle choices
- Depression affects compliance to treatment
- Type of depressive symptoms may be important (e.g. somatic vs. cognitive symptoms)
- Depressive symptoms in post MI patients may differ from those in psychiatric populations

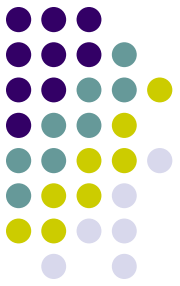
CVD and Anxiety



- Similar to Depression
- Anxiety an independent risk factor for CHD
- Anxious people
 - a 25% greater risk of CHD
 - a 50% higher risk of death
 - (Roest et al. 2010...)
- IHD patients who suffer significant anxiety have a 5-fold increased risk of experiencing frequent angina
 - (Arnold et al. 2009)

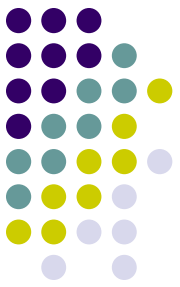


The Process



- Initial intake interview (90 minutes)
- Aim to identify:
 - predisposing
 - precipitating
 - maintaining
 - protective factors
- Formulation & Treatment Plan





The Problems

- Anxiety (including panic attacks, PTSD...)
- Depression
- Adjustment Disorder



Depression

Clinical features

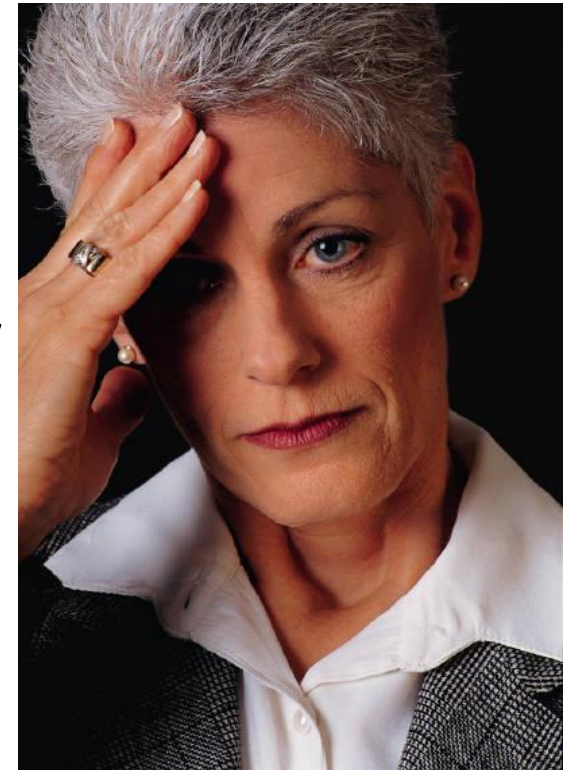
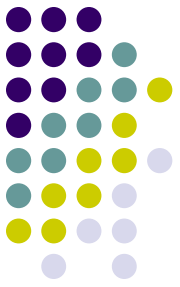


- Mood
- Behaviour
- Relationships
- Somatic State
- Cognition
- Perception



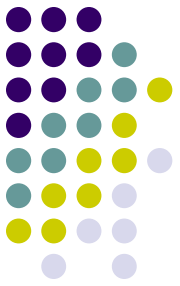
Anxiety

- Post-traumatic Stress Disorder
- Panic Disorder / Panic Attacks
- Generalized Anxiety Disorder
- Obsessive Compulsive Disorder
- Phobias



Adjustment Disorder

Diagnostic criteria DSM-IV-TR



A. The development of emotional or behavioral symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s).

B. These symptoms or behaviors are clinically significant as evidenced by either of the following:

- (1) Marked distress that is in excess of what would be expected from exposure to the stressor
- (2) Significant impairment in social or occupational (academic) functioning.

C. The stress-related disturbance does not meet the criteria for another Axis I disorder and is not merely an exacerbation of a preexisting Axis I or Axis II disorder.

D. The symptoms do not represent Bereavement.

E. Once the stressor (or its consequences) has terminated, the symptoms do not persist for more than an additional 6 months.

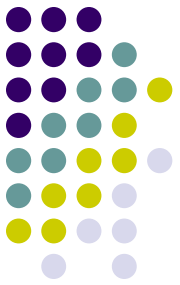
Specify if:

Acute: if the disturbance lasts less than 6 months

Chronic: if the disturbance lasts for 6 months or longer

Adjustment Disorders are coded based on the subtype, which is selected according to the predominant symptoms. The specific stressor(s) can be specified on Axis IV.

(With Depressed Mood; With Anxiety; With Mixed Anxiety and Depressed Mood; With Disturbance of Conduct; With Mixed Disturbance of Emotions and Conduct; Unspecified).



The Therapy

- Evidenced based
- Multimodal
- Collaborative
- Level 3 skills (HSEA 2002, DHSS 1990)
clinical psychologists operate on all 3 levels



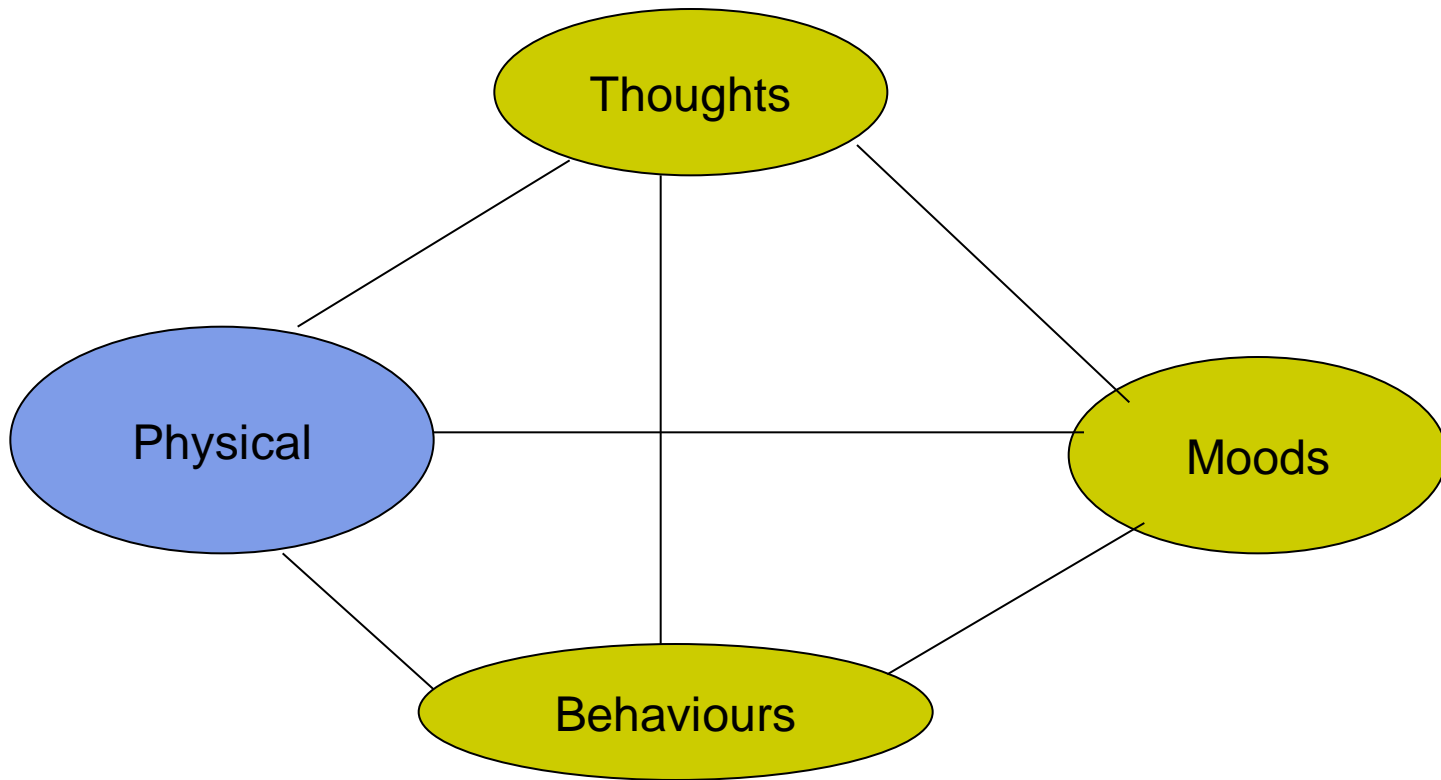
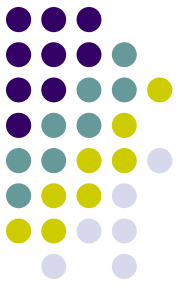
Cognitive Behaviour Therapy

Mindfulness

Psychoeducation

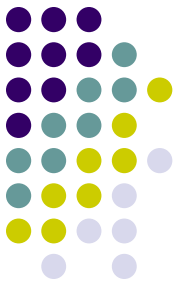
Depression

The Model



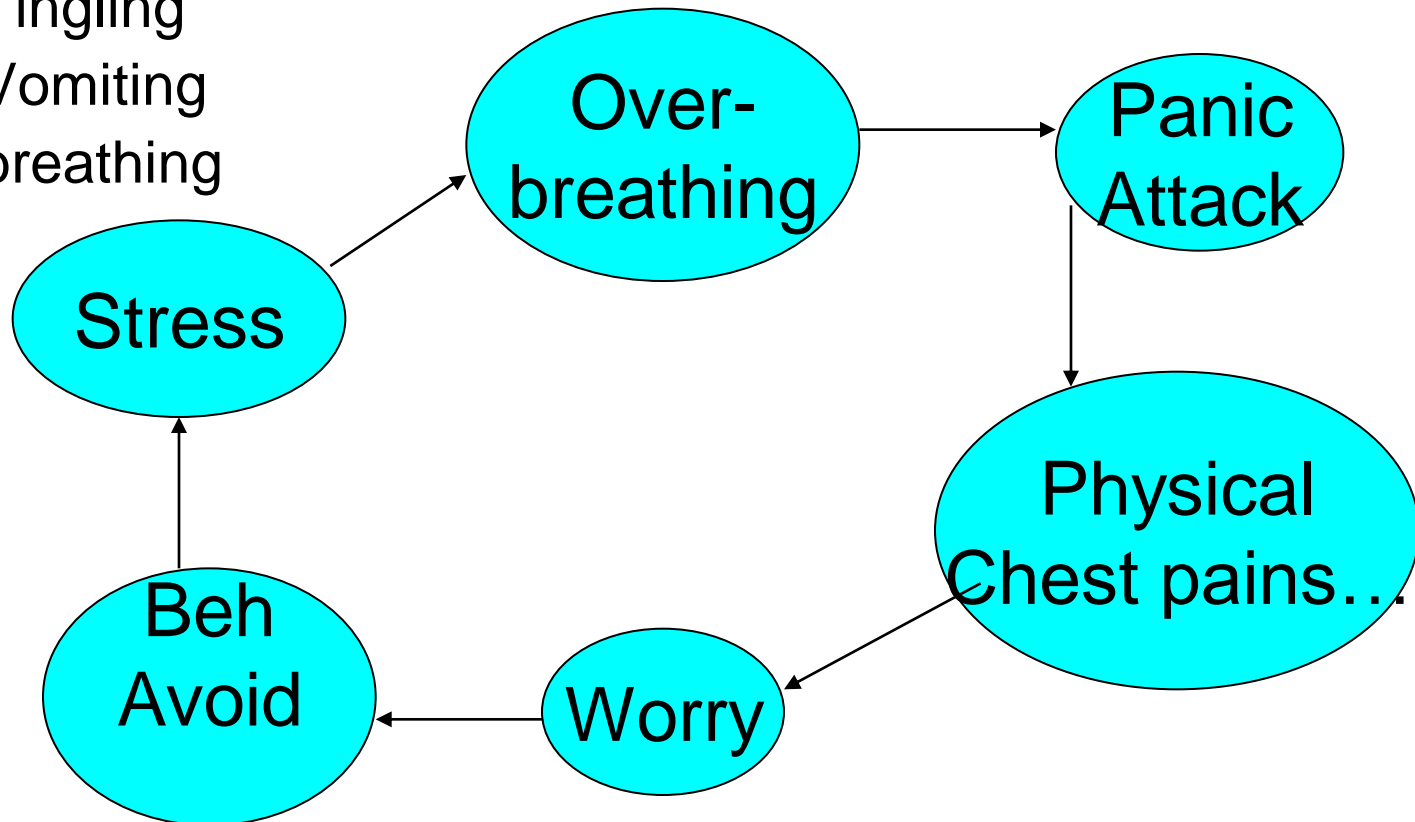
Panic Attack

The model



Differences between a panic attack and a heart attack:

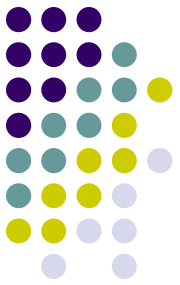
- Pain
- Tingling
- Vomiting
- breathing



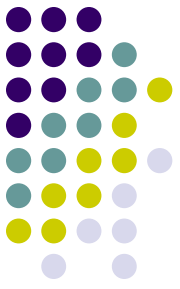
PTSD

The Model

- People who have had shocks from ICDs
- Link between PTSD and mortality
- Treatment components
 - Psychoeducation
 - Anxiety management
 - Exposure
 - Cognitive restructuring
 - Relapse prevention
 - Maintenance of recovery



Does Psychological therapy work?

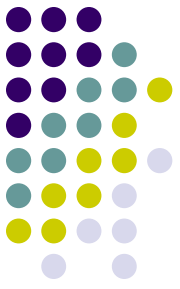


- Effect on depression and anxiety
- Effect on behavioural change
- Effect on cardiac mortality/morbidity
- Type of psychological intervention (education, beh, cog, relaxation....)
- Gender differences
- Timing of intervention –
within first two months *or* later *or* ongoing intervention



(See Linden et al. 2007; Welton et al. 2009; ENRICHD data...)

The Future



- Need for the development of psychological input
- Need for improved coordination with cardiology departments, cardiac rehabilitation, primary care, general practitioners...
- Cost Effectiveness of Psychology...

Linden et al. estimated an investment of about \$
in comparison to high costs of hospital stays :
investigations

Blumenthal et al (2002) drew similar conclusion about the
usefulness of PT of ischemia in men

