Workshop IV
A Psychological Approach to Disease Management for Cardiac Patients

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The impact of a heart disease is often much more than a person’s heart. The consequences of heart disease on a person’s physical capability and daily functioning can impose multi-dimensional and long-term psychological burden on our patients.

- Fear and shock after having a major cardiac event / surgery
- Elevated death anxiety and sense of uncertainty about the future
- Guilt and shame about previous habits that might increase the risk of having a heart disease
- Embarrassment and self-doubt over diminished physical capabilities
- Loss of confidence about one’s ability to fulfill different social roles, e.g., being a productive employee, a caring parent, etc.
- Stress to cope with the disease via long-term medication compliance, frequent medical appointment, change of lifestyle and diet control
Some Common Psychopathologies Related to Heart Disease

- Major Depressive Disorder
- Anxiety Disorders
  - Panic Disorder
  - Agoraphobia
- Cardiophobia (not a formal DSM-5 diagnosis)
- Trauma- and stressor-related disorders
  - Adjustment Disorder
  - Acute Stress Disorder
  - Posttraumatic Stress Disorder
- Somatic symptoms and related disorders
  - Somatic Symptom Disorder
  - Illness Anxiety Disorder
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The relationship between heart disease and Major Depressive Disorder is bi-directional

- Following acute cardiac events, around 20% of individuals experienced a major depressive episode within a few weeks (Steptoe & Whitehead, 2005)
- Depression consistently predicts morbidity and mortality among individuals with heart disease, including MI and CHD (Dornelas, 2008)

Major Depressive Disorder affects the prognosis of heart disease through numerous behavioral pathways (Dornelas, 2012)

- Decreased attendance to cardiac rehabilitation program
- Problematic smoking and drinking
- Substance abuse
- Poor medication compliance
- Physical inactivity
Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning:

- Depressed mood most of the day, nearly every day
- Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (i.e., anhedonia)
- Significant change in weight or appetite
- Insomnia / hypersomnia
- Psychomotor agitation / retardation
- Fatigue
- Feelings of worthlessness or excessive guilt
- Diminished ability to think or concentrate, or indecisiveness
- Recurrent thoughts of death
Despite the high prevalence estimates, depression is often underdiagnosed and untreated among cardiac patients

- Some somatic symptoms of depression might resemble part of the normal recovery from a cardiac event, e.g., weight/appetite change, poor sleep, psychomotor retardation and fatigue
- Stigma to mental illnesses

Traditional markers of depression can be used to recognize MDD in cardiac patients

- Persistent depressed mood
- Anhedonia, i.e., incapacity to experience pleasure
- Suicidality
- Prior history of depression and other comorbid psychiatric conditions
Major Depressive Disorder | Psychological Intervention

- **Cognitive behavioral therapy**
  - Practice behavioral activation
  - Identify and alter cognitive distortions (e.g., catastrophic thinking)
  - Interrupt the cognitive process of rumination
    - Distraction
    - Mindfulness
    - Relaxation techniques
Cardiophobia & Anxiety Disorders

- Cardiophobia is defined as anxiety towards physiological sensations and accompanied by fears of having a cardiac event and dying (Eifert, 1992)
  - Focused-attention and preoccupation on cardiac-related sensations
  - Fear towards cardiac-related sensations, i.e., perceive these sensations as indicating or triggering a cardiac event which can be fatal
  - Persistent avoidance of and safety-seeking behaviors against activities that lead to cardiac-related sensations
Cardiophobia & Anxiety Disorders | Mechanism

The “Vicious Daisy” (Salkovskis, 1999)

Events and situations

Anxiety

Negative interpretations

Physiological sensations

Avoidance and safety-seeking behaviors
Cardiophobia & Anxiety Disorders

**Mechanism**

- Had a cardiac arrest
- Being sent to hospital and received surgery

- My heart is not functioning well, I can die from cardiac arrest at anytime
- Help might be unavailable when I have cardiac arrest, so better not to be alone
- Those physiological sensations are warning signs of an upcoming cardiac arrest
- Those physiological sensations will trigger another cardiac arrest

- Heart palpitation
- Pressured sensation on chest
- Muscle tension
- Shortness of breath

- Frequent checking of blood pressure, pulse rate and body weight
- Avoid activities that would cause cardiac-related sensations (e.g., exercising, watching horror movies, playing video games, etc.)
- Adopt a series of safety-behaviors (e.g., avoid staying alone in the office, traveling aboard, reading about cardiac information, etc.)
Recurrent unexpected panic attacks – an abrupt surge of intense fear or discomfort that reaches a peak within minutes, and during which time four (or more) of the following symptoms occur:

- Palpitations, pounding heart, or accelerated heart rate
- Sweating
- Trembling or shaking
- Sensations of shortness of breath
- Feelings of choking
- Chest pain or discomfort
- Nausea or abdominal distress
- Feeling dizzy, unsteady, light-hearted, or faint
- Chills or heat sensations
- Paresthesias (numbness or tingling sensations)
- Derealization (feelings of unreality) or depersonalization (being detached from oneself)
- Fear of losing control or “going crazy”
- Fear of dying
Marked fear or anxiety about two or more –
- Public transportation
- Open spaces
- Enclosed places
- In line or in a crowd
- Outside of home alone

Thought that escape might be difficult or help might not be available in the event of developing panic-like symptoms or other incapacitating or embarrassing symptoms

Situations always provoke fear or anxiety

Situations are actively avoided, require companion, or are endured with intense fear or anxiety

Fear or anxiety out of proportion of the actual danger
# Cardiac VS Non-Cardiac Chest Pain

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<thead>
<tr>
<th>Cardiac Chest Pain</th>
<th>Non-Cardiac Chest Pain</th>
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<tbody>
<tr>
<td>• Straightforward descriptions, e.g., tight, gripping, etc.</td>
<td>• Complex metaphorical descriptions, e.g., unsettled feelings</td>
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<tr>
<td>• Often at the central chest or symmetrical</td>
<td>• Away from midline of chest</td>
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<tr>
<td>• During or soon after exercise</td>
<td>• Spontaneous occurrence</td>
</tr>
<tr>
<td>• Rapidly relieved by rest or nitroglycerin</td>
<td>• Last for longer periods; not easily relieved by rest or nitroglycerin</td>
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**Diagnostic differentiation best by angiography**

(Wulsin et al., 1988)
Cognitive behavioral therapy

- Apply imagery exposure or in-vivo exposure together with response prevention to achieve habituation/extinction of physiological arousal
- Conduct behavioral experiments to disconfirm negative interpretations on physiological arousal
Facilitate Adjustment among Cardiac Patients

Five key elements of successful adjustment to heart disease as a chronic medical condition (de Ridder, Geenen, Kuijer, & van Middendorp, 2008)

- Successful performance of adaptive tasks
- Adequate functional status (e.g., work)
- Absence of psychological disorders
- Presence of low negative affect and high positive affect
- Satisfaction and wellbeing in various life domains
The successful performance of adaptive tasks relies on patients being actively engaged in self-management as much as possible, thus allowing good habits to form.

1. Knowledge
   - Explain the diagnosis and treatment in simple and objective language, avoid using threatening words (e.g., “you have one foot stepped in the hell”)
   - Clarify misunderstanding via time for patients to ask questions and involvement of family when necessary
   - Offer concrete advices on disease management (e.g., individual physical capabilities; what kind and duration of exercise are suitable for each patient)
2. Perceived self-efficacy

- In rehabilitation settings, assist patients to set achievable goals and focus on one to two goals at a time
- Acknowledge patients’ effort in working towards the goals and reflect on their positive changes
- Anticipate patients’ difficulties in adhering to disease management regimens
- Facilitate communication among patients via modeling in patient support groups

3. Outcome expectancies

- In cases of ICD implant, emphasize on the protective functions of the device and what patients can do after the implant
Five key elements of successful adjustment to heart disease as a chronic medical condition (de Ridder, Geenen, Kuijer, & van Middendorp, 2008)

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Pay attention to the psychological state of patients
Refer to Clinical Psychologist when necessary
Positive Outcomes our Cardiac Patients Recognized

- Established and adopted a healthier lifestyle
  - Quit smoking, practice diet control and exercise regularly

- Improved social relationships
  - Establish closer relationships with family and friends via the appreciation of their care and support in patients’ recovery
  - Develop new relationships with medical staff

- Achieved a better appreciation of life and sense of purpose
  - Rearrange life priorities, e.g., identifying new opportunities
  - Emphasize on self-care, including stress management
“Living with heart disease is not just about survival. To be exact, it is about how to incorporate the physical limitations I have into the pursuit of my life purpose and strive to maintain a reasonable level of wellbeing simultaneously. My doctors, nurses and therapists are helping me a lot in attaining this goal.”

By a patient of the cardiac rehabilitation program at Tung Wah Hospital