

## Supplementary materials

### Figure S1: The Coronary Artery Disease Education Questionnaire II (CADE-Q II)

Domain: **Medical Condition**

Question 1

**Coronary Artery Disease is:**

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a) A disease of the heart's arteries that occurs only in older age and is mainly caused by deposits of calcium in the arteries.

b) A disease of the arteries of the heart which occurs in older age in people with high cholesterol or who smoke.

c) A disease of the arteries of the heart that starts silently at a young age. It is influenced by poor life style habits, genetics, and involves *inflammation in the arteries*.

d) I don't know.

Question 2

**Angina (chest pain of discomfort) occurs:**

---

a) When the heart muscle is working too hard.

b) When the heart muscle is not getting enough blood and oxygen to work properly.

c) When the brain is not getting enough oxygen.

d) I don't know.

Question 3

**In a person with coronary artery disease, which of the following is a usual description of angina?**

---

a) Headache after meals.

b) Chest pain or discomfort, at rest or during physical activity, which can also be felt in the arm and/or back and/or neck.

c) Chest pain or discomfort during physical activity.

d) I don't know.

Question 4

**A heart attack occurs:**

---

a) If an artery in the heart becomes blocked.

b) If the heart suddenly races in response to stress.

c) If the flow of oxygen-rich blood to an area of heart muscle suddenly becomes blocked. If blood flow is not restored quickly, the area of heart muscle begins to die.

d) I don't know.

Question 5

**The best resources available to help someone understand his/her medications are:**

---

a) The doctor, the cardiac rehab team, the pharmacist and recommended resources on the internet.

b) What someone reads on the internet.

c) The doctor and the cardiac rehab team.

d) I don't know.

Question 6

**Medications such as aspirin (ASA) and clopidogrel (Plavix™) are important because:**

---

a) They lower blood pressure.

b) They “thin” the blood.

c) They reduce the “stickiness” of platelets in the blood so that blood flows more easily through coronary arteries and past coronary stents.

d) I don’t know.

Question 7

**The “statin” medications, such as atorvastatin (Lipitor™), rosuvastatin (Crestor™), or simvastatin (Zocor™), have a beneficial effect in the body by:**

---

a) Lowering LDL cholesterol in the blood stream.

b) Blocking the production of LDL cholesterol in the liver, lowering LDL cholesterol in the blood stream, and encouraging cholesterol to move out of plaques from the arteries.

c) Reducing the absorption of cholesterol from food.

d) I don’t know.

Domain: **Risk Factors**

Question 1

**The risk factors for heart disease that can be changed are:**

---

a) Blood pressure, cholesterol, and smoking.

b) Age, family history of heart disease, ethnicity and sex.

c) Blood pressure (systolic and diastolic), LDL + HDL cholesterol, smoking and second hand smoking, waist size, and reaction to stress.

d) I don't know.

Question 2

**The actions that can be taken to control cholesterol levels include:**

---

a) Knowing the total cholesterol level, becoming a vegetarian and avoiding eggs.

b) Knowing the LDL and HDL levels, taking cholesterol medication as prescribed, increasing

soluble fibre intake and reducing saturated fat in the diet, and participating in aerobic exercise 5 times per week.

c) Knowing the cholesterol levels and taking cholesterol medication as prescribed.

d) I don't know.

### Question 3

**The actions that can be taken to control blood pressure include:**

---

a) Increasing calcium in the diet.

b) Reducing the amount of salt in the diet, and taking blood pressure medication.

c) Reducing the amount of sodium in the diet to <2000 mg per day, exercising, taking blood pressure medication regularly and learning relaxation techniques.

d) I don't know.

### Question 4

**The first step towards controlling a risk factor (such as blood pressure or cholesterol) is:**

---

a) Knowing if someone has the risk factor.

b) Knowing the level of the risk factor.

c) Setting a goal or action plan to control the risk factor

d) I don't know.

#### Question 5

**The actions to prevent developing diabetes include:**

---

a) Follow a heart healthy diet, do 150 minutes of aerobic exercise weekly and twice weekly resistance exercises with weights and therabands.

b) Reduce the amount of fats and carbs in the diet.

c) With a family history of diabetes, a person is bound to develop diabetes because diabetes is not a preventable disease.

d) I don't know.

Domain: **Exercise**

Question 1

**What are the important parts of an exercise prescription?**

---

a) Replacing calories and salt during a light workout.

b) How hard to exercise, how long to exercise, how often to exercise and what type of exercise to do.

c) How hard to exercise, and how long to exercise.

d) I don't know.

Question 2

**For a person living with heart disease, it is important to do a cardiovascular warm-up before exercising because:**

---

a) It gradually increases the heart rate, it may reduce muscle soreness and can reduce the risk of developing angina.

b) It adds more time to the total amount of minutes of exercise.

c) It prepares the body for exercise.



d) I don't know.

Question 3

**The pulse can be found:**

---

a) In the wrist below the base of the thumb.

b) In the wrist below the base of the pinky finger or on the neck on the Adam's apple.

c) At the radial artery (wrist) or at the carotid artery (neck).

d) I don't know.

Question 4

**Three things that one can do to exercise safely outdoors in the winter are:**

---

a) Check the temperature and wind-chill, and wear layers of clothing.

b) Check the temperature and wind-chill and make sure it is not below -10 degrees C, wear 3-4 layers of clothing and adjust the pace of walking so that the level of exertion and heart rate are on target.

c) Check the temperature and wind-chill and make sure it is not below -15 degrees C, wear

a winter coat and jog if one gets too cold.

d) I don't know.

Question 5

**The benefits of doing resistance training (lift weights or elastic bands) include:**

---

a) Builds up strength and muscles.

b) Lowers resting heart rate.

c) Increases strength, improves the ability to carry out day to day activities, improves blood sugar levels and increases muscle.

d) I don't know.

Question 6

**If a person gets chest discomfort during a walking exercise session, he or she should:**

---

a) Speed up to see if the discomfort goes away.

b) Slow down and stop exercising.

c) Slow the walk pace and if it does not go away within 1 minute, stop exercising. If it still does not go away within the next 1 minute, take nitro-glycerine as prescribed. If the pain

continues, get help.

d) I don't know.

Question 6

**How does a person know if he/she is exercising at the right level?**

---

a) The heart rate is in the target zone, the exertion level is no higher than “some-what hard”, and the person can exercise and talk.

b) The heart rate is in the target zone.

c) Working up a sweat, breathing heavy and the heart rate is going fast.

d) I don't know.

Domain: **Nutrition**

Question 1

**What is the best source of omega 3 fats in food?**

---

a) Ground flaxseed.

b) Pasta.

c) Fatty fish (e.g. trout, salmon).

d) I don't know.

### Question 2

**Trans fat are:**

---

a) Found in nuts and seeds.

b) Partially hydrogenated vegetable oils (e.g. vegetable shortening).

c) Margarine.

d) I don't know.

### Question 3

**What is one good way to add more fibre to your diet:**

---

a) Add nuts and seeds to a salad.

b) Drink juice.

c) Eat plant proteins (e.g. legumes/beans, lentils).

d) I don't know.

Question 4

**Which of the following foods has the most salt:**

---

a) Bread.

b) Frozen dinners.

c) Fruits and vegetables.

d) I don't know.

Question 5

**What combination of foods can help lower blood pressure?**

---

a) Red meat, poultry, fish.

b) Vegetables and fruits.

c) Vegetables and fruits, whole grains, low fat dairy, nuts and seeds.

d) I don't know.

Question 6

**When reading food labels, what should one look at first?**

---

a) Fat content.

b) Brand name.

c) Serving size.

d) I don't know.

Question 7

**How many servings of fruits and vegetables should adults consume?**

---

a) 7 to 10 servings a day.

b) 5 servings a day.

c) As many as possible.

d) I don't know.

Domain: **Psychosocial Risk**

Question 1

**Which of the below are effective stress management techniques?**

---

a) Deep breathing.

b) Avoid communication.

c) Meditation, progressive muscle relaxation, making social connections, stretching/exercise, deep breathing.

d) I don't know.

Question 2

**What stresses have been related to increased risk for heart attacks?**

---

a) Chronic stresses, major life events, disrupted sleep, and feelings of distress.

b) Chronic stress at home or at work and feeling depressed.

c) Stresses that you do not feel in control of.

d) I don't know.

Question 3

**Which of the following describes your best option for reducing your risk from**

---

**depression:**

---

a) Take an antidepressant, and do your exercise prescription.

b) Do your exercises, take better care of yourself, and if required take medications.

c) The risk of heart attack due to depression cannot be reduced.

d) I don't know.

Question 4

**It is important to recognize "sleep apnea" because:**

---

a) It leads to long term lung disease.

b) It is associated with high blood pressure, abnormal heart rhythms, and higher risk of future heart attack.

c) It leads to further heart problems.

d) I don't know.

Question 5

**"Chronic stress" is defined as:**

---



a) Ongoing persistent stressful events in one area of your life.
b) Events at work or at home that make you feel irritable, anxious, or sleepless.
c) The stresses that are out of a person's control.
d) I don't know.

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Figure S2:

## 冠心病教育问卷

### 维度一： 疾病知识

1. 冠心病是（）

A: 是一种发生在心脏动脉的疾病，仅在年龄较大时发生，该病主要是由动脉中钙盐沉积所致。

B: 是一种发生在心脏动脉的疾病，发生在有高血脂或吸烟的老年人中。

C: 是一种发生在心脏动脉的疾病，年轻时隐匿起病，不良生活方式、遗传以及动脉炎性病变是其易患因素。

D: 不知道。

2. 心绞痛（胸痛）发生在（）

A: 心肌负担加重时。

B: 心肌缺血缺氧时。

C: 大脑缺氧时。

D: 不知道。

3. 对于冠心病患者而言，以下哪一项是心绞痛的常见描述（）

A: 饭后头痛。

B: 休息或体力活动时出现胸痛或胸部不适，在手臂和/或背部和/或颈部也可以感觉到疼痛或不适。

C: 体力活动时出现胸痛或胸部不适。

D: 不知道。

4. 心脏病发作是指（）

A: 心脏动脉发生阻塞。

B: 应激反应时（机体突然受到强烈有害刺激，如饥饿，创伤，缺氧等），心率突然加快。

C: 营养心肌的动脉血供突然受阻，如果没有迅速恢复，该部位心肌会出现坏死。

D: 不知道。

5. 阿斯匹林和氯吡格雷（波立维）的作用是（）

A: 能降低血压。

B: 能“稀释”血液。

C: 能降低血液中血小板的“粘滞度”，使冠状动脉和/或冠状动脉支架中血流通畅。

D: 不知道。

6. “他汀”类药物，如阿托伐他汀（立普维）、洛伐他汀（如：美降之，洛特，罗华宁，血脂康）或辛伐他汀（舒降之）的作用是（）

A: 能降低血液中的低密度脂蛋白胆固醇。

B: 能阻止肝脏中低密度脂蛋白胆固醇的产生，降低血液中的低密度脂蛋白胆固醇，并促进胆固醇从动脉斑块中析出。

C: 减少食物中胆固醇的吸收。

D: 不知道。

## 维度二：冠心病的危险因素

1. 关于冠心病的危险因素，以下哪些是可以改变的（）
  - A: 高血压、胆固醇和吸烟。
  - B: 年龄、心脏病家族史、种族和性别。
  - C: 高血压、低密度脂蛋白和高密度脂蛋白胆固醇、吸烟和吸二手烟、腰围以及压力。
  - D: 不知道。
2. 下列能控制胆固醇水平的行为是（）
  - A: 了解总胆固醇水平，成为素食主义者（不吃荤），不吃鸡蛋。
  - B: 了解低密度脂蛋白和高密度脂蛋白水平，遵医嘱服用降脂药，增加可溶性膳食纤维摄入量，减少饮食中的饱和脂肪酸，每星期有氧运动5次。
  - C: 了解胆固醇水平，遵医嘱服用调脂药
  - D: 不知道。
3. 下列能控制高血压的行为是（）
  - A: 增加饮食中钙的摄入。
  - B: 减少饮食中食盐的摄入，并服用降压药物。
  - C: 将饮食中的钠盐总量减少到<2g/天，坚持体育锻炼，定期服用降压药物，并学习放松技巧。
  - D: 不知道。
4. 以下预防糖尿病的行为是（）
  - A: 遵循利于心脏健康的饮食，每周进行规律的运动
  - B: 减少食物中脂肪和碳水化合物（如米饭，馒头，面条等主食）的含量。
  - C: 因为糖尿病不是可预防的疾病，如果有糖尿病家族史，就一定会患糖尿病。
  - D: 不知道。

## 维度三：运动

1. 以下哪一项是运动处方的重要组成部分（）
  - A: 轻微的体育锻炼能消耗卡路里（能量或热量）和盐。
  - B: 运动强度、运动时间、运动频率以及运动类型。
  - C: 运动强度及运动时间。
  - D: 不知道。
2. 对于心脏病患者，运动之前进行热身运动（运动前的准备活动）很重要是因为（）
  - A: 热身可以逐渐增加心率，减轻肌肉酸痛，并且降低心绞痛发作的风险。
  - B: 热身能增加运动总时间。
  - C: 为正式运动做准备。
  - D: 不知道。
3. 能扪及动脉搏动（脉搏）的部位是（）
  - A: 大拇指根部以下的手腕处。
  - B: 小拇指根部以下的手腕处或在颈部喉结处。
  - C: 手腕的桡动脉或颈部的颈动脉。

D: 不知道。

4. 抗阻力训练（对抗一定阻力的运动，如拉弹力带，举哑铃等）的好处是（）

A: 增强体力和锻炼肌肉。

B: 降低静息心率（安静时的心率）。

C: 增强体力，提高日常活动能力，改善血糖水平和增加肌肉。

D: 不知道。

5. 如果在步行运动中出现胸部不适，您应该（）

A: 加快步行速度，观察胸部不适是否消失。

B: 减慢并停止运动。

C: 减慢步速，如果在1分钟内没有消失，则停止运动。如果停止运动后1分钟内仍然没有消失，则服用硝酸甘油（或者速效救心丸）。如果疼痛持续，立即寻求医疗帮助。

D: 不知道。

6. 如何判断自己的运动强度处于合适水平？（）

A: 运动时心率在目标心率（运动时的理想心率）范围内，以不出现不适反应（吃力）为度，并且能继续运动和说话。

B: 运动时心率在目标心率范围内。

C: 出汗、呼吸粗重，心率加快。

D: 不知道。

#### 维度四：营养

1. 以下食物中，欧米伽-3 脂肪酸（OMEGA-3）含量最高的是（）

A: 亚麻籽。

B: 面食。

C: 多脂鱼（深海鱼，如鳕鱼，鲑鱼等）。

D: 不知道。

2. 以下含反式脂肪酸的是（）

A: 坚果和种子类食物。

B: 部分氢化植物油（如：植物起酥油）。

C: 人造奶油。

D: 不知道。

3. 以下哪种食物含纤维素最多（）

A: 坚果或种子类食物。

B: 橙汁。

C: 富含植物蛋白的食物（如：豆类食物，小扁豆）。

D: 不知道。

4. 以下哪种食物含盐最多（）

A: 面包。

B: 速冻食品（如速冻饺子等）

- C: 水果和蔬菜。  
D: 不知道。
5. 以下哪种食物组合有助于降低血压 ( )  
A: 红肉 (猪肉, 牛羊肉), 家禽, 和鱼。  
B: 蔬菜和水果。  
C: 蔬菜和水果, 全谷物, 低脂乳制品, 坚果和种子类食物。  
D: 不知道。
6. 当阅读食物标签时, 您首先应该关注 ( )  
A: 脂肪含量。  
B: 商标名称。  
C: 食物成分。  
D: 不知道。
7. 成年人每天应食用水果和蔬菜 ( )  
A: 约为 500-850g (1 斤至 1 斤半左右)。  
B: 约为 425g (8 两左右)。  
C: 尽可能的多。  
D: 不知道。

#### 维度五: 社会心理风险

1. 有效缓解压力的技巧是 ( )  
A: 深呼吸。  
B: 避免交谈。  
C: 冥想 (静思, 沉思), 进行性的肌肉放松训练, 进行社交活动, 伸展运动或锻炼, 深呼吸。  
D: 不知道。
2. 增加心脏病发作风险的压力是 ( )  
A: 慢性压力、重大生活事件、睡眠中断, 忧虑。  
B: 家庭和生活中的慢性压力, 情绪低落。  
C: 你觉得无法控制的压力。  
D: 不知道。
3. 你会选择以下哪一项来降低抑郁风险 ( )  
A: 服用抗抑郁药物, 遵循医生的运动处方。  
B: 进行运动, 更好地照顾自己, 如果需要则服用药物。  
C: 由抑郁症引起的心脏病发作风险是不能降低的。  
D: 不知道
4. “睡眠呼吸暂停综合征”的危害是 ( )  
A: 它可以引起慢性肺病。  
B: 它与高血压, 心律失常, 增加心脏病发作风险有关。

C: 它可以导致进一步的心脏问题。

D: 不知道。

5. “慢性压力”的是指（）

A: 生活中某一方面持续性的应激事件。

B: 在工作和家庭中使你烦躁，焦虑或失眠的事件。

C: 个人无法控制的压力。

D: 不知道。

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