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# Gamification and mHealth: a model to bolster cardiovascular disease self-management

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 @ blondonk

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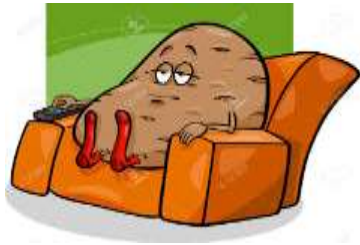
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# CORONARY HEART DISEASE (CHD)

- Cardiovascular disease = 1st cause of mortality (33%)  
About  $\approx$ 50% from CHD
- Driver of healthcare costs
- CHD = lifestyle disease

OFSP, 2014



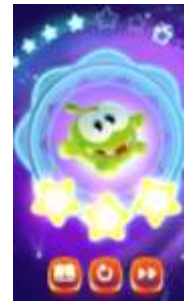
# THE CHALLENGE

1 year after an acute coronary syndrome:

- **>75%** of patients do not meet the recommended amount of regular physical activity (150 min/wk)
- **>75%** of patients with a BMI > 25 kg/m<sup>2</sup> do not reach the minimal 5% recommended weight loss
- **50%** of patients who initially quit have resumed smoking

Data from the ELIPS registry

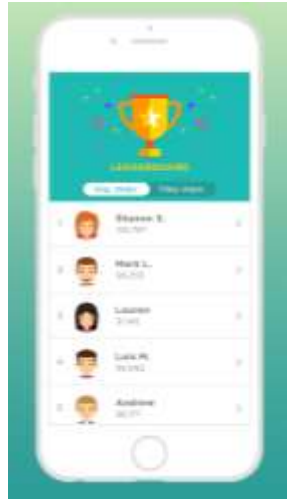
# GAMIFICATION



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## GAMIFICATION (2)



# OBJECTIVE

Context: cardiac rehabilitation program and follow-up

- To create a gamified health model to help implement and maintain behavioral changes for chronic disease self-management



Smart-ACS:

a smartphone app to help individuals with coronary heart disease adopt and maintain healthier lifestyles

# METHOD

- Validated health behavior model for chronic disease self-management
- Survey

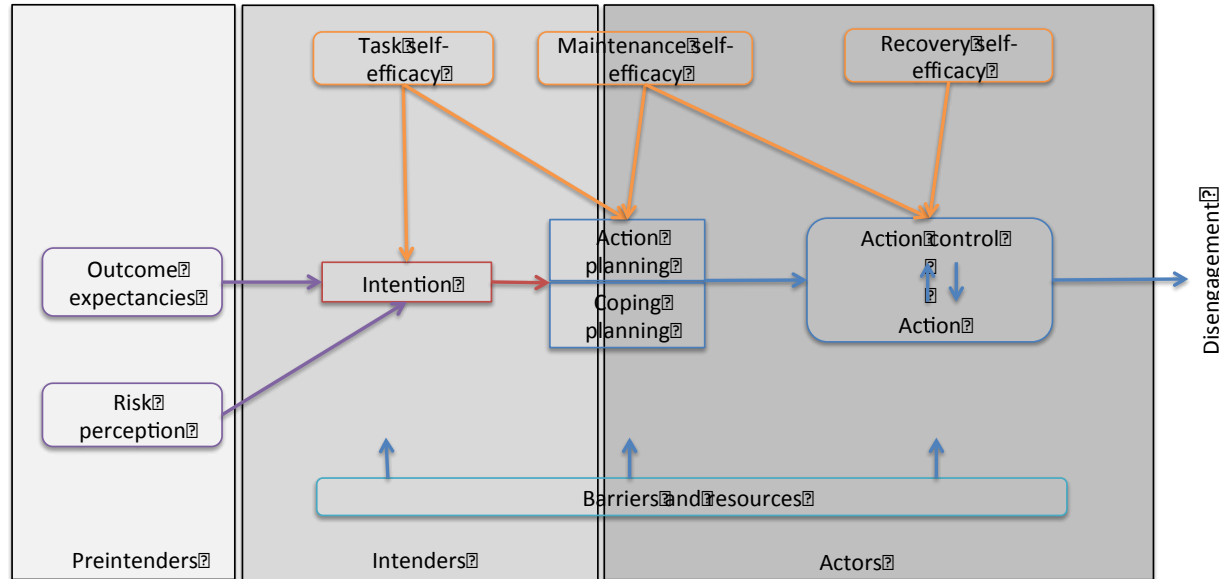


- Focus group



- Analysis

# HEALTH ACTION PROCESS APPROACH (Schwarzer et al.)





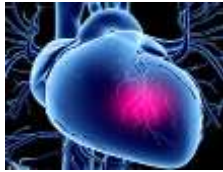
# PATIENT SURVEY

37 patients from focus group sessions during cardiac rehabilitation

- Age group mainly 40-70 yo
- Predominantly male (70%)
- 70% married



# WHAT DIFFICULTIES DO PATIENTS FACE?



- **76%** **anxious about symptoms recurring**



- **>50%** challenged by **dietary habits**:
  - What and how to change?



- **40%** want help to **quit smoking**

# WHAT WOULD PATIENTS LIKE?



- Nearly 90% want more practical advice
- ~ 50% want help with their meds



- ~ 30% want social support from peers

1.1

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## FOCUS GROUP

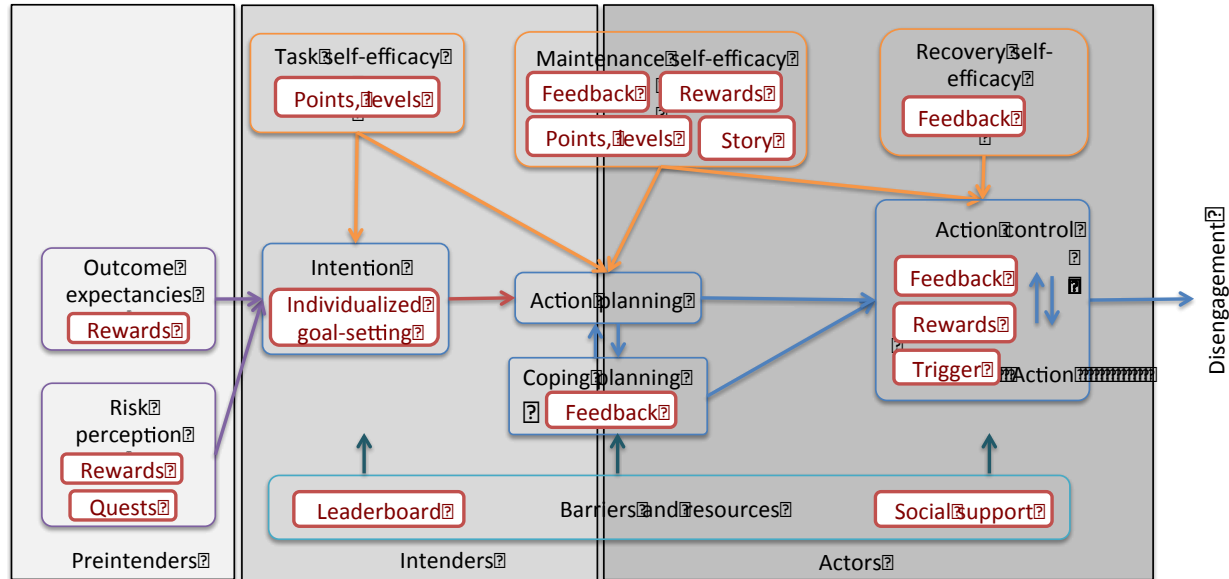


50 y (32-62)

Thematic analysis of **motivation** and **barriers** to lifestyle changes

- Importance of understanding the disease and keeping up to date with new options
- Rewards could help maintain changes
- **Dietary concerns: need for more practical information of what and how to change this behavior**
- **Little feedback on efforts overall**

# PUTTING IT ALL TOGETHER: OUR GAMIFIED HAPA MODEL



## NEXT STEPS



Smart-ACS



## THANKS !

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