

“Healthy Heart, Healthy Brain” Program: Preventing Cardiovascular Disease in Geriatric Patients with Alzheimer’s and Dementia

Presenter(s): Sooksai Kaewbua, RN; Diana Spring, RN; Akua Larbi, RN; Beth Rice, LPN; Chizimuzo (Zim) Okoli, RN, PhD, MPH
University of Kentucky College of Nursing, Lexington, KY ; Eastern State Hospital, Lexington, KY

Background

- A growing body of evidence demonstrates a relationship between the health of patients’ hearts and brains.
- Many cardiovascular disease risk factors are modifiable. Therefore, controlling cardiovascular risk factors may be one of the most cost-effective and helpful approaches in protecting brain health.
- Social Learning Theory*¹ posits that learning takes place within social contexts. As a cognitive process, learning requires social interaction and observation of behavior.
- Applying *Social Learning Theory*¹ in the context of a game to enhance healthy choices can promote healthy behavior among patients with mental illnesses.

Objectives

- To prevent the development or exacerbation of cardiovascular disease and/or diabetes
- To promote heart-healthy behaviors that patients will continue after discharge
- To support patients in staying socially engaged to enhance brain health, mental health, and quality of life

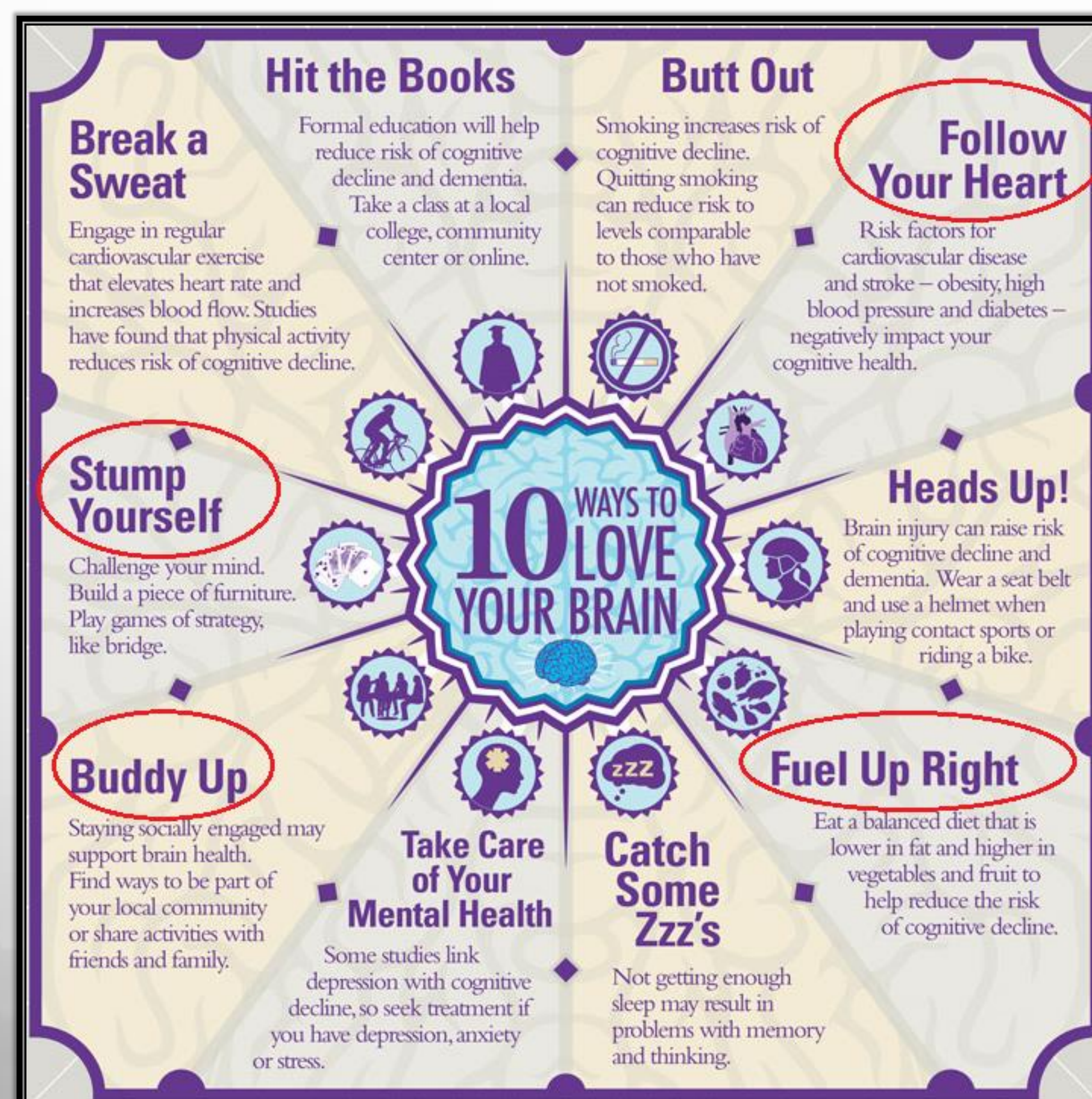


Figure 1. The multi-faceted effects of the game ²

Methods

INTERVENTION

- The “*Healthy Heart, Healthy Brain*” program is a group-based health promotion intervention for non-bedridden geriatric patients on the psychiatric in-patient unit at Eastern State Hospital (ESH).
- The activity takes place before the evening meal, and begins with a presentation by nursing staff, based on the ‘10 Ways to Love Your Brain’ recommendations by the Alzheimer’s Association (see *Figure 1*), on the importance of heart-healthy diets and how they help protect against Alzheimer’s, dementia, and other disorders².
- Then patients play a board game created especially for learning to distinguish between heart-healthy and non-heart-healthy diets (see *Figure 2*). Patients take turns drawing cards and identifying whether or not the images reflect a heart-healthy diet (see *Figure 3*).
- Nursing staff provide a brief explanation of each card, regardless of the patient’s answer.

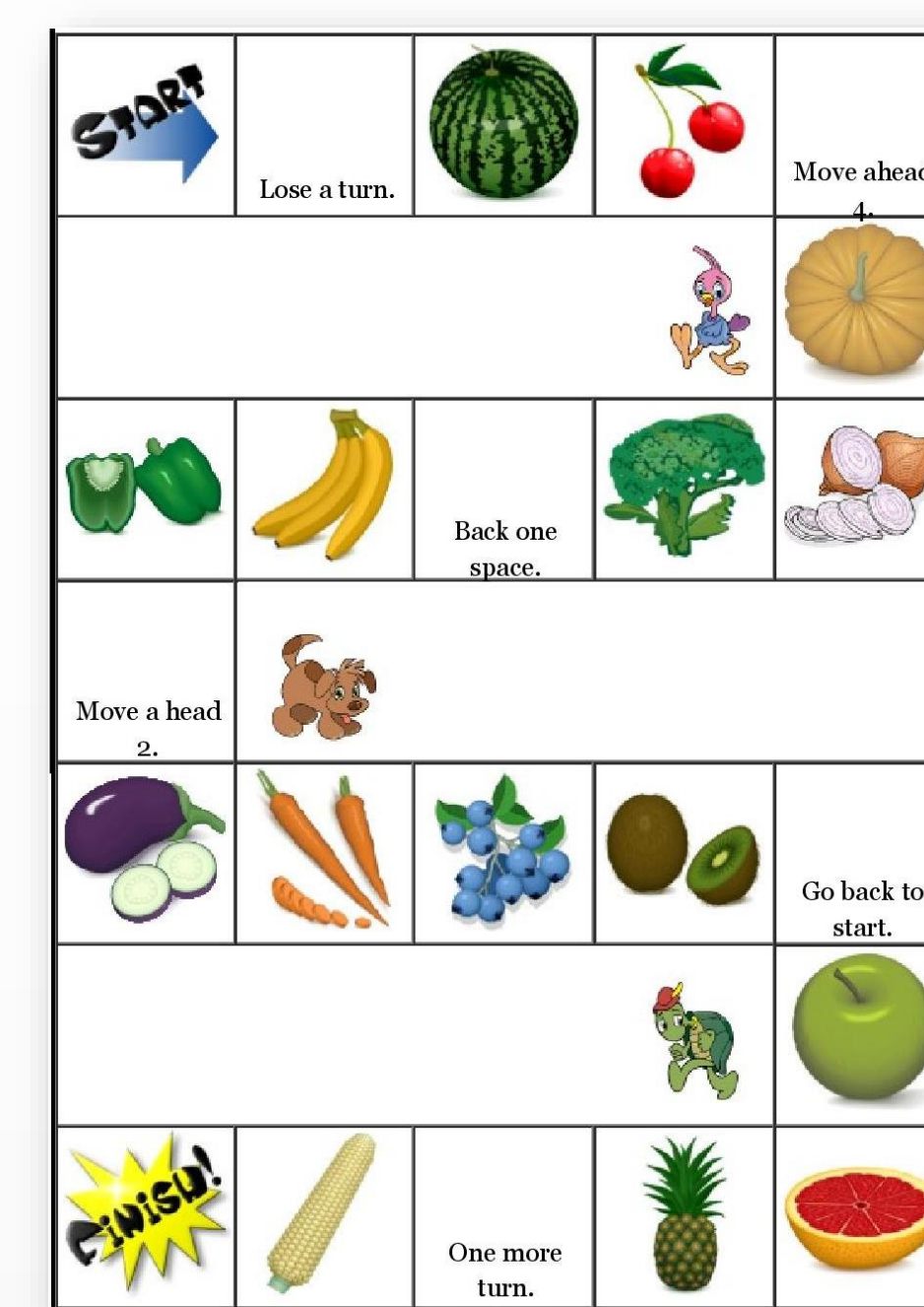


Figure 2. Board game.



Figure 3. Sample of cards. Each color represents a different number of spaces that the player can move.

DESIGN

- This clinical practice project will evaluate the process of implementation and patient outcomes of the “*Healthy Heart, Healthy Brain*” program (see *Figure 4*)
- For the process evaluation, we will examine:
 - Reach of the program
 - Dose of the program
 - Fidelity of the education methods
- For the outcome evaluation, we will examine:
 - Changes in patients’ knowledge (using Pre-and Post-test knowledge questionnaires)
 - Patient Satisfaction with the program
 - Staff Satisfaction with the program

Result

- Preliminary findings seem promising as illustrated by some anecdotes. Patients show positive attitudes about eating healthy-heart diets, learning about diets, participating in group activities on the unit, and retaining information long-term.
- Participation in the game has had a surprisingly positive effect on patients’ moods and socialization.

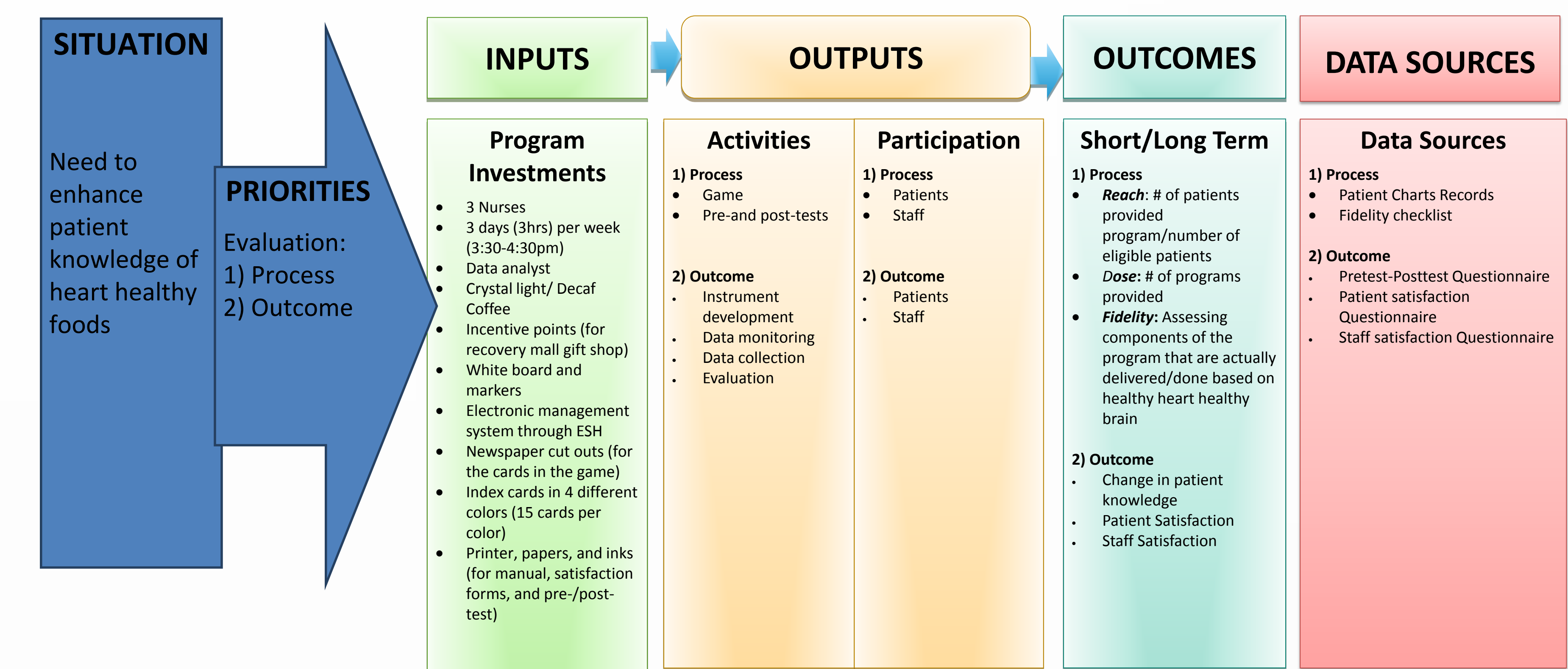


Figure 5. Logic model for future program implementation and evaluation.

Conclusion/Implications

- The program is currently implemented as a primary prevention program.
- For secondary prevention, the intervention could include some questions designed to determine other risk factors in order for staff to develop an individually appropriate treatment plan.
- For tertiary prevention, patients with cardiovascular disease and/or diabetes symptoms will be encouraged to participate in a physical activity program designed to prevent further physical deterioration while maximizing quality of life.

Acknowledgement

We greatly appreciate the inspiration provided by Berea College professor Rick Meadows, who suggested using a game like this to teach our patients and who helped us create this poster. We would also like to thank ESH Mental Health Associate Raytonya Allen for helping us make the game cards. Finally, we want to thank our patients for the enthusiasm with which they have embraced our game.

Reference

¹ Bandura, Albert (1963). *Social learning and personality development*. New York: Holt, Rinehart, and Winston
² Alzheimer’s Association (2015). *The Alzheimer’s Association unveils “10 Ways to Love Your Brain”*. <http://www.alz.org/documents/cnflorida/10- WAYS.pdf>