Reward schema to nudge healthier food choice

A multidisciplinary investigation of food choice in young adults in the United States of America

Patricia Powell
University of Queensland School of Public Health
PhD Candidate
6 December 2019

Supervisors:
Dr. Sheleigh Lawler, University of Queensland
Dr. Katherine Cullerton, University of Queensland
Dr. Margaret (Jo) Durham Queensland University of Technology
Dr. Linda Cameron, University of Merced California
PhD project rationale

• Routine decisions impact long-term health
• Food choice is central to leading causes of morbidity and mortality
• The period of young adulthood is a unique and important opportunity for prevention interventions
• There is limited research targeting broader food choice (beyond FVC) for young adults in the US: health promotion efforts show mixed results
Schema theory

Schema: organized collections of knowledge and experience stored in long-term memory, accessed, and evolved to aid individuals in navigating related situations.\(^{(3,4)}\)

Nudge theory

Nudge: any intervention that acts on the individual, including implicit processes, at the point of decision through environmental cues designed to encourage behaviours of interest without taking away any options or altering economic incentives. (5,6)

Heuristic: Mental shortcuts used to aid decision-making, such as representing biases, boundaries, or habits that simplify the process by focusing attention on factors important to the individual. (5,6)

Research overview

**Study 1**
Secondary data analysis

Scoping review

Identify food choices, microenvironments, and social contexts of choices, populations featured, and gaps in the evidence

*Powell P, Durham M, Lawler S. Food choices of young adults in the United States of America: a scoping review. ADV NUTR 2019;10(3)*

**Study 2 Phase 1**
Secondary data analysis

Literature analysis

Identify rewards reported in the literature review

Coordination with US university

Establish research relationship with UMD Research dining environment

**Study 2 Phase 2**
Primary data collection

Focus group

Refine nomenclature and test concepts for online survey and EMA tools via focus group

EMA test and focus group

Build and test online survey and EMA tools, obtain feedback

Identify reward schema of real-world choices and social circumstances for a non-generalizable sample via EMA

**Study 3**
Primary data collection

Online survey and EMA

In parallel, identify existing nudges in microenvironment

Analyze reward schema against existing nudges

Suggest opportunities for future research and implications for health promotion efforts

Nudge audit
Research overview

**Study 1**
Secondary data analysis

- Scoping review

Completed

*Powell P, Durham M, Lawler S. Food choices of young adults in the United States of America: a scoping review. ADV NUTR 2019;10(3)*

**Study 2 Phase 1**
Secondary data analysis

- Literature analysis
- Coordination with US university

Completed

Identify rewards reported in the literature review
Establish research relationship with UMD Research dining environment

**Study 2 Phase 2**
Primary data collection

- Focus group
- EMA test and focus group

Planned

Refine nomenclature and test concepts for online survey and EMA tools via focus group
Build and test online survey and EMA tools, obtain feedback
Identify reward schema of real-world choices and social circumstances for a non-generalizable sample via EMA

**Study 3**
Primary data collection

- Online survey and EMA

Planned

In parallel, identify existing nudges in microenvironment
Analyze reward schema against existing nudges
Suggest opportunities for future research and implications for health promotion efforts
Research overview

**Study 1**
Secondary data analysis

- Scoping review

*Powell P, Durham M, Lawler S. Food choices of young adults in the United States of America: a scoping review. ADV NUTR 2019;10(3)*

**Study 2 Phase 1**
Secondary data analysis

- Literature analysis
- Coordination with US university

**Study 2 Phase 2**
Primary data collection

- Focus group
- EMA test and focus group

- Refine nomenclature and test concepts for online survey tools via focus group
- Build and test online survey and EMA tools, obtain feedback
- Identify reward schema of real-world choices and social circumstances for a non-generalizable sample via EMA

**Study 3**
Primary data collection

- Online survey and EMA

- In parallel, identify existing nudges in microenvironment
- Bake, reward schema against existing nudges
- Suggest opportunities for future research and implications for health promotion efforts
Thank you

patricia.powell@uqconnect.edu.au