

A Review of Behavioral Interventions That Increased Healthy Food Selection

Shir Zion, Ellie Kazemi, & Shelby Jones
California State University, Northridge (CSUN)



Introduction

- The prevalence of people who are either overweight or obese is high in the U.S. (Centers for Disease Control, 2010)
 - 68.5% adults & 31.8% youth (Ogden et al., 2014)
- Increasing healthy food consumption may mitigate obesity
 - Antecedent interventions can increase healthy food selection (Glanz et al., 2004)

Purpose

To identify the most used interventions, settings, and populations that resulted in effectively increasing individuals' healthy food selection

Method

Keyword search using PsycINFO:

healthy* AND food* AND incentive* OR behavior* OR selection* OR choice* OR purchase*

N = 150

Peer Reviewed Articles

N = 131

Language: English

N = 128



DV: 1) Observable & Measurable

N = 18

2) Measured healthy food selection

Interobserver Agreement

- Two Independent Observers
- 100% across all articles

Dependent Variable

Observable and Measurable:

- Measured through direct behavior observation or by permanent product

Healthy Food Selection:

- Participants' selection, consumption, or packing of healthier foods as defined by the authors relative to less healthy foods

Discussion

Most Commonly Used Interventions, Settings, and Populations:

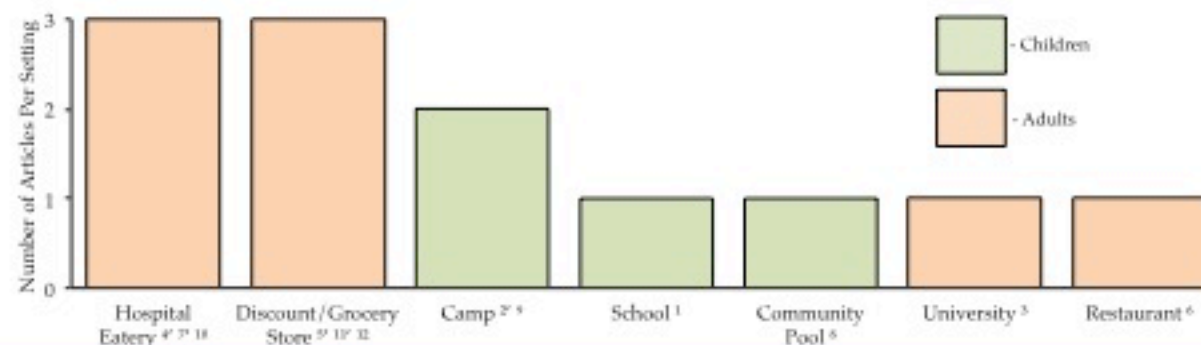
- Advertisement alone or in combination with other manipulations
- Hospital Enteries and Discount/Grocery Stores
- Adult Consumers
- High variability in how dependent variables were measured
- Of the eight intervention types, only three were studied as single-variable interventions
- May not need to spend time, money, and resources on additional interventions if one intervention alone is effective

Results

Table 1. Most Utilized Interventions for Healthy Food Selection

| | Authors | Journal | Intervention(s) |
|----|---|--|---|
| 1 | Kotler, Schiffman, Hanson (2012) | <i>Journal of Health Communication</i> | Advertisement |
| 2 | Warsink, Shimizu, Camps (2001) | <i>Pediatric Obesity</i> | Advertisement |
| 3 | Stockli, Stampfli, Messner, Brunner (2016) | <i>Appetite</i> | Advertisement |
| 4 | Sonnenberg et al. (2013) | <i>Preventive Medicine</i> | Advertisement + Labeling |
| 5 | Sigurdsson, Larsen, Gunnarsson (2014) | <i>Journal of Applied Behavior Analysis</i> | Advertisement + Placement |
| 6 | Horgen & Brownell (2002) | <i>Health Psychology</i> | Advertisement + Pricing |
| 7 | Thorndike, Sonnenberg, Riis, Barnaclough, Levy (2012) | <i>American Journal of Public Health</i> | Advertisement + Availability + Labeling + Placement |
| 8 | Olstad, Goonewardene, McCargar, Raine (2015) | <i>Childhood Obesity</i> | Advertisement + Availability + Pricing + Sampling |
| 9 | Beets, Tilley, Weaver, Turner-McGreevy, Moore (2014) | <i>Health Education Research</i> | Education + Incentive |
| 10 | Elbel, Taksler, Mijanovich, Abrams, Dixon (2013) | <i>American Journal of Preventive Medicine</i> | Labeling + Pricing |
| 11 | Schwartz et al. (2014) | <i>Psychological Science</i> | Incentive |
| 12 | Tal & Warsink (2015) | <i>Psychology and Marketing</i> | Sampling |

Figure 1. Settings Studied by Researchers



Future Research

- Conduct experimental research in which researchers isolate variables that influence healthy food selection
- Conduct experimental research such that the dependent variables are observable and measurable
- Standardize dependent variables across research articles
- Conduct more research with children

Selected References

- Beets, M.W., Tilley, F., Weaver, R.G., Turner-McGreevy, G.M., Moore, J.B. (2014). Increasing fruit, vegetable and water consumption in summer day camps- 3-year findings of the healthy lunchbox challenge. *Health Education Research*, 29(5), 812-821.
- Elbel, B., Taksler, G.B., Mijanovich, T., Abrams, C.B., Dixon, L.B. (2013). Promotion of healthy eating through public policy: a controlled experiment. *American Journal of Preventive Medicine*, 45(1), 49-55.
- Kotler, J.A., Schiffman, J.M., Hanson, K.G. (2012). The influence of media characters on children's food choices. *Journal of health communication*, 17(8), 886-898.