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Food Purchases in an Online Virtual Restaurant

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Food Purchases in an Online Virtual Restaurant

Abstract

Food is commonly purchased at fast-food restaurants and improving food choices at these establishments may be a key contributor to improving the nation's diet. A better understanding of the barriers to dietary change when purchasing foods at fast-food restaurants may aid the development of new interventions to improve dietary choices. The objective of this study is to determine the costs and benefits of choosing a lower calorie meal in a 3D virtual representation of a fast-food restaurant.

Disciplines

Community Health | Entrepreneurial and Small Business Operations | Food Science | Human and Clinical Nutrition | Sales and Merchandising

Comments

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Food Purchases in an Online Virtual Restaurant

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Objectives: Food is commonly purchased at fast-food restaurants and improving food choices at these establishments may be a key contributor to improving the nation's diet. A better understanding of the barriers to dietary change when purchasing foods at fast-food restaurants may aid the development of new interventions to improve dietary choices. The objective of this study is to determine the costs and benefits of choosing a lower calorie meal in a 3D virtual representation of a fast-food restaurant.

Methods: In this ongoing study, a 3D model of a fast-food restaurant was created and accessed by participants through the internet. The foods on the menu, their nutritional content and price were based on foods served at popular fast-food restaurants. After completing a demographic questionnaire, participants were placed at the entrance of a 3D virtual restaurant where they rated their subjective appetite

and rated the expected palatability and satiety of the foods on the menu. Participants were then randomized to one of two conditions: free-choice or goal-orientated (asked to choose a meal that was 700kcal). The participant could then view all menu items on a representation of an electronic ordering kiosk in the store and was asked to 'purchase' a meal. After the meal was selected, participants were asked to rate the palatability and expected satiety of that meal. The cost and nutritional content of the meal was determined.

Results: Preliminary data are presented but as the study is in progress statistical analysis has not currently been performed. Twenty-three participants have currently completed the study. The energy purchased in the free condition is 941kcal while in the constrained condition it is 722 kcal. The cost of the constrained meal is \$6.93 and the free meal is \$7.16. People in the free condition have taken 65.2 seconds to order whereas people in the constrained condition have taken 72.3 seconds.

Conclusions: This ongoing study illustrated the potential for collecting data about food choices using virtual worlds. This approach may provide new insights into how people make food decisions.

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