Evaluating the Effectiveness of Questionnaire and Educational Videos: A University Pilot Study

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College students often face barriers to healthy eating, including time constraints, budget limitations, and limited cooking skills. Targeted interventions may support healthier dietary behaviors (Deliens et al., 2016; Whatnall et al., 2021). This pilot study examines whether brief, tailored educational videos can influence college students' intention to consume more fruits and vegetables. The project specifically investigates how exposure to positively, negatively, or neutrally framed videos affects self-reported behavioral intentions—while also accounting for cultural orientation using Hofstede's dimensions of culture.

The core of the study focuses on a key item in the questionnaire that measures behavioral intention: "In the near future, would you say you will consume at least 2 cups of fruits and 3 cups of vegetables on average per day?"—adjusted for gender-based recommendations. Participants answered this on a 5-point Likert scale ranging from Extremely Unlikely to Extremely Likely. Responses to this question formed the dependent variable and were used to evaluate both the effectiveness of the videos and the variability necessary for future statistical modeling.

A total of 54 undergraduate and graduate students from the College of Family and Consumer Sciences were randomly assigned using Qualtrics to one of four conditions: a group that viewed a video with positive framing, another with negative framing, a group with neutral framing, and a control group that did not view any video.

Participants first completed a questionnaire collecting demographic data and cultural orientation, based on Hofstede's dimensions such as individualism and power distance. They were then exposed to one of the video conditions, except for the control group, after which they responded to the key behavioral intention item.

The behavioral intention data revealed the following proportions of participants who reported being "somewhat likely" (Likely or Extremely Likely) to meet the recommended fruit and vegetable intake: 64.3% in the positive group, 61.5% in the negative group, 53.8% in the neutral group, and only 28.6% in the control group. This pattern suggests that exposure to the videos increased participants' intentions to consume more fruits and vegetables, particularly when the content was motivational or awareness-raising. Although a multinomial logistic regression using Hofstede's dimensions and group assignment did not yield statistically significant results—primarily due to the small sample size—the variability in responses was sufficient to justify proceeding with a full-scale study. In particular, 67% of Hofstede-related items demonstrated variance greater than 20% of the theoretical maximum, supporting the utility of both the survey and video interventions. Furthermore, the clarity of the questionnaire was also evaluated, receiving an average rating of 8.5 out of 10.

In line with Creswell and Creswell's (2017) approach to pilot design, this study successfully refined key tools and confirmed that both the dependent measure and experimental manipulation are appropriate for further research. These findings reinforce the value of brief, tailored video content as a suggesting strategy to influence health intentions among college students.

References

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