Facebook Use, Food Consumption Behavior, and Risk Perception as Predictors of Exposure to Nutrition Misinformation

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Abstract

Facebook is one of the most popular social media platforms in the world. No research has been done to investigate the phenomenon of Facebook use and nutrition misinformation among Arabs. The study aims to understand whether exposure to nutrition misinformation can be predicted based on Facebook use, food consumption behavior, and risk perception. Specifically, the study adopted a cross-sectional web survey of pre-tested 33 questions to which 238 responded. Data were analyzed using multiple linear regression to predict exposure to nutrition misinformation from Facebook use, food consumption behavior, and risk perception based on 166 respondents who fully completed the survey. The multiple regression model statistically significantly predicted exposure to nutrition misinformation, $F(3,162) = 41.651$, $p<0.001$, adj. $R2= 0.425$. All three variables added statistically significantly to the prediction, $p<0.05$. Findings support further research and design of interventions addressing determinants of exposure to nutrition misinformation on social media.

Introduction

Facebook is one of the most popular social media platforms in the world and the Middle East region alike. Empirical evidence demonstrates the role of Facebook in propagating misinformation in several domains like politics and current events. Yet, no research has been done to investigate the phenomenon of Facebook use and nutrition misinformation among Arabs. The study aims to understand whether exposure to nutrition misinformation can be predicted based on Facebook use, food consumption behavior, and risk perception.

Method

The study adopted a cross-sectional web survey of pre-tested 33 questions. A multiple regression was run to predict exposure to nutrition misinformation from Facebook use, food consumption behavior, and risk perception based on data from 166 respondents who fully completed the survey to the end.

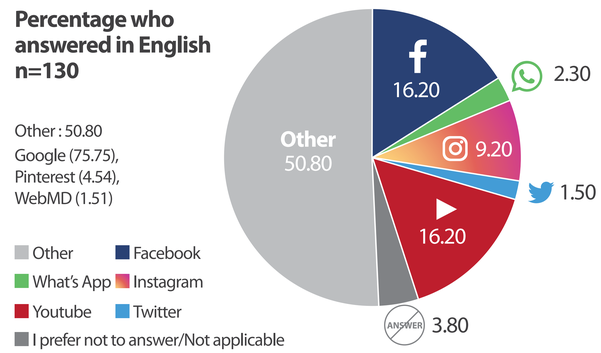
Results

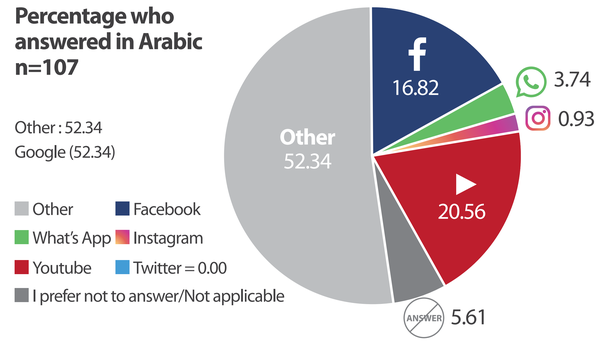
A total of 238 responded to the survey (n=131 English and n=107 Arabic). A difference in the demographic profile was noted between participants who chose to respond to the survey in English over Arabic as shown in Table 1. 51.48% of total respondents identified Google as the first social media channel to go to when seeking nutrition information, followed by YouTube (18.14%), and Facebook (16.45%). See Figure 1. Results of multiple regression model statistically significantly predicted exposure to nutrition misinformation, $F(3,162) = 41.651$, $p<0.001$, adj. $R2= 0.425$. All three variables of Facebook use, food consumption behavior, and risk perception added statistically significantly to the prediction, $p<0.05$. Regression coefficients and standard errors can be found in Table 2.

Table 1:
Demographic characteristics of the sample (n=238)

	Percentage who answered in English n=131	Percentage who answered in Arabic n=107	Percentage Total n=238
Gender			
Male	21.40	15.89	18.90
Female	78.60	84.11	81.10
Age			
1946 – 1965 (Baby boomers)	9.20	11.21	10.08
1966 – 1979 (Gen X)	29.00	33.64	31.09
1980 – 1994 (Gen Y or Millenials)	58.00	28.97	44.96
> 1995 (Gen Z)	3.80	26.17	13.87
Highest Education Level			
University Graduates	59.50	48.60	54.62
Master's degree	22.90	8.41	16.39
Current Marital Status			
Single	40.50	43.93	42.02
Married	58.00	51.4	55.04
Current employment status			
Employed	68.70	48.60	59.66
Unemployed	31.30	51.40	40.34

Figure 1:
When I have a question related to nutrition information, the first social media channel I go to is:





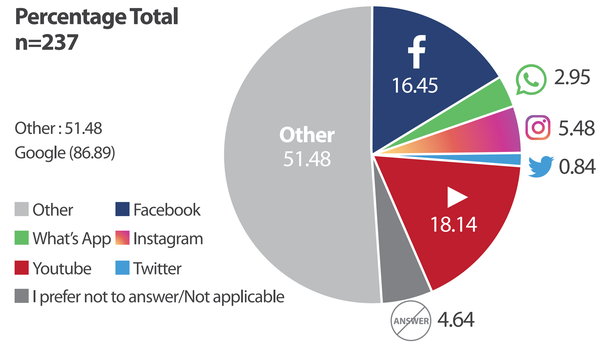


Table 2:
Summary of Multiple Regression Analysis

Variable	B	SE_B	β
Intercept	0.817	0.154	
Facebook use	0.231	0.056	0.267*
Food consumption behavior	0.274	0.045	0.422*
Risk perception	0.123	0.045	0.171*

Note. *p<0.05; B=unstandardized regression coefficient; SEB = Standard error of the coefficient; B = standardized coefficient

Conclusions

Our findings provide new insights and support further research and design of interventions addressing determinants of exposure to nutrition misinformation on social media.

Take Home Message

When addressing exposure to nutrition misinformation on Facebook, it is important to examine the simultaneous combination of Facebook use, food consumption behavior, and risk perception as multiple factors affecting exposure to nutrition misinformation.

Acknowledgement

IRB approval was obtained from Fielding Graduate University in May 2017, No. 17-0510.

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