

Cognitive Antecedents of “Good” Food Safety Practices

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Overview of Talk

- H: Improvements in reported food safety practices must be due to changes in consumer knowledge, attitudes, or experience. But which ones?
- It might help design effective food safety education, if we could identify the cognitive antecedents of safe behavior.

Overview of Analysis

- 1998 FDA/USDA Food Safety Survey data.
- 2SLS regression with instrumental variables
- Food safety practices = B's (cognitive + demographic variables) with personal food preferences (i.e., prepare raw fish) as instrument.

Summary measures of individual's food safety practices:

- Handling--based on 3 foods, 7 Qs
- Consumption--based on 14 foods
- Cooling--based on 2 foods, 4 Qs

Large set of cognitive measures

- Prior experience variables
- Knowledge variables
- Risk perceptions
- Information search measures

Overview of Results

- Controlled for demographics
- Controlled for self-selection bias
- Controlled for other cognitive variables
- Direct effects of cognitive variables that remain identify likely antecedents of 'good' food safety behavior.

Results: Risk Perceptions: Personal Behavior Level

Var. Descript.	Cooling	Consumption Handling	
Washing hands	n.s.	n.s.	t=3.8 "good"
Cross-contamination	n.s.	t=3.7 "good"	t=5.6 "good"
Undercooking	t=3.2 "good"	t=4.1 "good"	t=3.2 "good"
Inadequate cooling	t=3.4 "good"	n.s.	n.s.

Personal behavior risk perceptions: How likely are you to get sick?

- If you forgot to wash your hands before you begin cooking.
- If vegetables you eat raw happen to touch raw meat or chicken.
- If you eat meat or chicken that is not thoroughly cooked.
- If you leave cooked food out of the refrigerator for more than 2 hours.

Results: Risk Perceptions: Societal Level

Var. Descript.	Cooling	Consumption Handling	
Microbial Risk	n.s.	t=2.2 "good"	t=2.7 "good"
Risk Trend	n.s."	n.s.	n.s.
Home Risk	n.s.	n.s.	t=2.0 "good"
Restaurant Risk	n.s.	n.s.	n.s.

Societal level risk perceptions: How common is it for people in the U.S. to get sick?

- Because of contamination of food by germs.
- Because of the way food is handled in their homes.
- Because of the way food is handled in restaurants.
- Do you think there has been more or less sickness from food over the past 5 years.

Results: Prior experience variables

	Cooling	Consumption	Handling
Food preparer status	n.s.	n.s.	n.s.
Young children in the household	t=-2.7 "Bad"	n.s.	n.s.
Reported recent foodborne illness experience	n.s.	t=5.5 "Bad"	n.s.

Results: Food safety knowledge var.

Var. Descript.	Cooling	Consumption	Handling
Common Knowledge	n.s.	n.s.	n.s.
Uncommon Knowledge	t=3.6 "Good"	n.s.	n.s.

Results: Information search var.

Var. Descript.	Cooling	Consumption Handling	
FS Infosearch	t=3.7 "Good"	n.s.	n.s.
SHL Attention	t=3.3 "Good"	n.s.	n.s.
SHL Recall	n.s.	n.s.	n.s.
SHL Change	n.s.	n.s.	n.s.

Distribution of Personal Risk Perception in the Population

- Characteristics associated with increased personal behavior risk perception
 - Women
 - Middle age, (26-60)
 - Less education
 - No food preparation experience
 - Recent illness experience
 - More likely to look for food safety information
 - Less knowledge about how to kill food pathogens

Conclusions:

- Consumers practice safe food behavior when they think about it.
- They think about it when they perceive a risk.
- They may not perceive a risk if they are confident they are controlling their risks.
- Consumers may have mistaken ideas about which practices are effective at reducing risks.

Implications

- Effective education challenges undue complacency.
- Practice-specific information is likely to work better than general information.
- Ideal message: Do you do it [specific practice] this way [practice specific information]?

Thinking Globally -- Working Locally



A Conference on Food Safety Education