A Case Study: Identify The Barriers For Health Professional To Deliver A Food Safety Curriculum

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ADVANCING FOOD SAFETY THROUGH BEHAVIOR CHANGE
Background

Foodborne illness is an important public health issue in the United States. Data from Centers for Disease Control and Prevention’s (CDC) : (per year)

- 19,056 cases of infection
- 4,200 hospitalizations
- 80 deaths
Introduction

Who are at-risk?

– Pregnant Women
– Children (<5 yrs old)
– Older Adults (>65 yrs old)
– People with Diabetes and other people with compromised immune system
# Background

*How trustworthy, if at all, do you find the following sources to deliver accurate food safety information?*

All (n=1,057)

<table>
<thead>
<tr>
<th>Source</th>
<th>Very trustworthy</th>
<th>Somewhat trustworthy</th>
<th>Total</th>
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<tbody>
<tr>
<td>Your primary care physician</td>
<td>53%</td>
<td>35%</td>
<td>89%</td>
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<tr>
<td>Other health professionals (nurses, pharmacists, or dietitians)</td>
<td>47%</td>
<td>42%</td>
<td>89%</td>
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<td>Friends/family members</td>
<td>20%</td>
<td>59%</td>
<td>79%</td>
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<td>Newspaper articles</td>
<td>8%</td>
<td>63%</td>
<td>71%</td>
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<tr>
<td>Grocery stores, drug stores or specialty stores</td>
<td>9%</td>
<td>60%</td>
<td>69%</td>
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<td>Magazine articles</td>
<td>7%</td>
<td>59%</td>
<td>67%</td>
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<tr>
<td>Television news stories</td>
<td>10%</td>
<td>56%</td>
<td>66%</td>
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<tr>
<td>Television cooking shows</td>
<td>9%</td>
<td>55%</td>
<td>64%</td>
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<td>Internet articles/websites</td>
<td>7%</td>
<td>54%</td>
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<td>Radio news stories</td>
<td>6%</td>
<td>54%</td>
<td>61%</td>
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<td>Television talk shows</td>
<td>5%</td>
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<td>Social networking sites (e.g., Twitter or Facebook campaign)</td>
<td>24%</td>
<td>26%</td>
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Sourcing from: IFIC, 2012
Background

- 40% of physicians were not confident in their general knowledge about foodborne illness
- <10% of RDs and RNs use structured classes or videos to provide education to pregnant consumers.
- 40% of RDs and RNs provided food safety education to high-risk consumers

- Buffer et al., 2013, Wong et al., 2004
Background

Current educational program:
- Use informational sheet
- Limited material designated for specific high-risk audience

Previous studies reported that food education is most likely to be effective if the programs and materials are tailored to the needs of a specific audience.

-Altekruse, Yang et al., 1999, Deon, Medeiros et al., 2014
Positive Deviance

Based on the observation that in every community there are certain individuals whose uncommon practices enable them to find better solutions to problems than their neighbors or colleagues despite having access to the same resources.

Goals:

- Identifying best practice
- Promote the best practice within the community or group.
Methodology

• Structured focus group with health professionals (n=27, 14 from hospitals and 13 from WIC) in Northern California

• After training sessions of Positive Deviance food safety curriculum

• Barriers and motivators to deliver food safety education using the curriculum
Focus group question:
What do you like about this positive deviance curriculum?

Representative Quote:
"By discussion and providing more information, they can make their own decision, and they will feel they are respected."
Focus group question: 
What are the challenges of delivering a food safety class?

Representative Quote: 
"I expect there would be very low attendance rate and returning rate of participants. They just don't think this is an interesting topic"
Focus group question:
What are the possible solution to the challenges?

Representative Quote:
"Webinars or other on-line techniques would be more feasible, and this will not demand extra time and staff."
Motivators

1. Curriculum shown effective and attractive
2. Patients need more food safety information
3. Health professionals want to update themselves
4. Combine food safety and current nutrition education
Barriers

1. Lack of management approval
2. Patients not interested
3. Lack of time and resources
4. Lack of food safety knowledge (Health Professionals)
Specific Barriers from WIC

For health professionals serving low-income:

• Cannot afford equipment like thermometer
• Low literacy
• Need more materials in Spanish, Chinese, Vietnamese
Curriculum Content

Clean

Cook

Chill

Avoid cross-contamination

Choose safe foods
More Food Safety Topics

• Handling backyard chicken/eggs

- CDC, 2016

Number of *Salmonella* Outbreaks per Year

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<tbody>
<tr>
<td>Cases</td>
<td>1</td>
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<td>2</td>
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-2,885 illnesses / 450 hospitalizations / 5 deaths

-CDC, 2016
More Food Safety Topics

• Handling backyard chicken/eggs
• Handling vegetables from home gardens
• Packing grocery in reusable bags or car trunks
• Organizing refrigerators

-CDC, 2016
Take-home Messages

• Needs of support from higher management
• Limitations of staff resources and program timelines.
• Flexible and innovative delivery forms
  – Web-based
  – Combination of food safety and nutrition
  – Combination of food safety and cooking class
What's happening?

- Two delivery forms: 45-min English/Spanish class, and one-page worksheet for consultation
IAFP 2017

Poster Title: Health Professionals’ Motivators and Barriers to Food Safety Education

• Quantitative Data
• Comparison between Qualitative and Quantitative
• Most wanted delivery format and topic
Acknowledgement

- Christine Bruhn, Ph.D., UC Davis
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