

## Food allergy accommodation policies in colleges and universities

### An investigation using organizational culture as a theoretical framework

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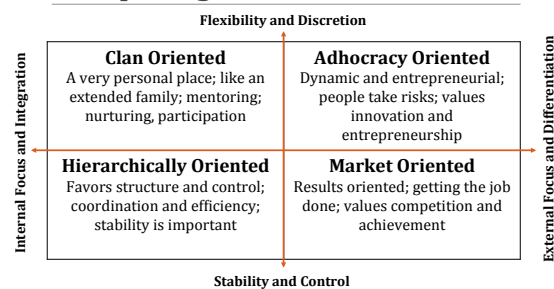
## Food Allergies in the United States

- Affect about 15 million Americans (Food Allergy Research and Education, 2014)
- Ingestion of food allergens may trigger range of symptoms (Bock, Munoz-Furlong, & Sampson, 2001; Joneja, 2013) and impact psychosocial well-being (Cumplings, Knibb, King, & Lucas, 2010)
- Voluntary guidelines for K-12 sector released federally (Centers for Disease Control and Prevention, 2013)
- College students with food allergies covered by Americans with Disabilities Act

## Organizational Culture as a Theoretical Framework

- Made up of "shared beliefs and values passed on to all within the organization" (Davidson, 2003, p. 206)
- Failed initiatives due to inattention to organizational culture (Goss, Pascale, & Athos, 1993; Green, 2012)
- Applied to explain how challenges are confronted in organization

## Organizational Culture: Competing Values Framework



Chatterjee, K. S. & Quinn, R. E. (2006). *Diagnosing and changing organizational culture based on the competing values framework* (Revised Ed.). San Francisco, CA: Jossey-Bass

## Organizational Culture and the Service Industry

- Organizational culture positively impacted responsiveness to customers and employees (Asree, Zain, & Razalli, 2010)
- Clan culture beneficial for foodservice organizations (Koutroumanis & Alexakis, 2009)
  - Loyalty
  - Commitment
  - Employee participation

## Rationale for Study

- Limited research on food allergy accommodations in college and universities (CUs)
- Research shows lack of published food allergy policies (Rajagopal & Strohhahn, 2011)
- Application of OCAI to determine departmental organizational culture in CU foodservice and its impact on policies

## Research Objectives and Hypotheses

1. Analyze formal (published) policies and procedures for food allergy accommodation in CU foodservice operations.
  1. Public CUs will have greater likelihood of formalized policies in comparison to private CUs
  2. Contract managed operations will have greater presence of formalized policies than self-operated
2. Evaluate whether variation in food allergy accommodation practices exist between different types of CU foodservice operations.
  3. Private CUs will follow a larger number of accommodation practices in comparison to public CUs

## Research Objectives and Hypotheses

3. Describe food allergy accommodation practices in CU foodservice operations.
4. Identify prominent organizational culture types among CU foodservice operations.
  4. Clan culture will be the predominant organizational culture type in CU foodservice operations
5. Explore CU foodservice directors' conceptualization of culture within the operation.

## Research Objectives and Hypotheses(cont.)

6. Examine impact of the culture of CU foodservice operations on food allergy accommodation practices.
  5. Accommodation practices differ based on culture type of the CU foodservice operations
7. Examine the relationship between organizational culture types (e.g. clan culture) are correlated with food allergy accommodation practices.
  6. Quality of food allergy accommodation policies differ based on the culture type of CU foodservice operations.

## Methods

- Explanatory sequential mixed methods design
- Questionnaire (Quant)
- Telephone interviews (Qual)

## Questionnaire: Overview

- CU foodservice professionals who are members of the National Association of College and University Foodservices
- Web-based questionnaire
- Questionnaire developed based on previous literature and included previously validated instrument
- Results from pilot study used to revise questionnaire
- Qualtrics© used for data collection

## Questionnaire: Data Analysis

- SPSS for analysis
- Descriptive statistics
  - Distributions, central tendencies, dispersion of data
- Prominent culture type was determined using OCAI responses
- ANOVA, pooled sample t-tests and 2 sample population proportions to test hypotheses

## Interviews: Overview

- Interview guide developed based on questionnaire results
- Purposeful sample
  - Volunteers from questionnaire phase (n=11)
- Phone interviews
  - Audio recorded

## Interviews: Data Analysis

- Audio tapes were transcribed
- Three researchers independently code transcripts by hand
  - Agreed upon themes and codes
- Ten participants completed member checking process

## Results

- Demographics
  - Questionnaire
  - Interviews
- Key findings
  - Organized by objectives (and hypotheses)

## Questionnaire: Participant Demographics

- N = 76 (22.8% response)
- 60.5% (n=46) were female participants
- 78.9% had college degree
  - 50% (n=38) Bachelor's degree
  - 28.9% (n=22) Master's degree
- 88.1% (n=67) had food safety certification
- 40.8% (n=31) Registered Dietitians
- 46% (n=35) worked in CU foodservice less than 10 years

## Interviews: Participant Demographics

- 41 questionnaire participants indicated interest in follow up interviews
- N = 11 participated in interviews
  - N = 7 nutritionists or Registered Dietitians
  - N = 3 managers or directors
  - N = 1 marketing director
- N = 10 were female
- All geographic regions represented
  - N = 3 from Southern region
  - N = 2 from Pacific, Midwest, Northeast region
  - N = 1 from Mid-Atlantic, Continental

## Questionnaire and Interviews: Department and Institution Characteristics

- Management Type of Operation
  - Questionnaire
    - 81.5% (n=62) self-operated
    - 18.4% (n=14) contract managed
  - Interviews
    - N = 8 self-operated
    - N = 2 contract managed
- Type of Institution
  - Questionnaire
    - 59.2% (n=45) public
    - 39.5% (n=30) private
  - Interviews
    - N = 7 public
    - N = 4 private

## Questionnaire Results: Accommodation Policies

**Table 4.3** Questionnaire Results: Food Allergy Accommodation Policy Content

Category	Institution (%) <sup>a</sup>	Department (%) <sup>a</sup>
<b>Training or professional development for foodservice staff related to food allergies</b>	4(16.0)	<b>53(96.4)</b>
<b>Involvement of dietician or person with nutrition training</b>	11(44.0)	<b>47(85.5)</b>
<b>Contact person for food allergy accommodation inquiries</b>	18(72.0)	<b>45(81.8)</b>
Outline of qualifications and eligibility criteria	11(44.0)	37(67.3)
Person responsible for ordering allergen-free products	6(24.0)	37(67.3)
Required medical documentation of food allergy	16(64.0)	32(58.2)
Required development of emergency action plans	15(60.0)	28(50.9)
Outlined evaluation of quality of food allergy accommodation efforts	5(20.0)	26(47.3)
Required multiple departments' coordination of accommodation efforts	19(76.0)	22(40.0)
Required documentation of disability due to life-threatening food allergy	22(88.0)	21(38.2)
<b>Required students to sign a release of liability waiver</b>	6(24.0)	6(10.9)

<sup>a</sup>Percentages based on the number of respondents reporting policies in place at the indicated level: n=25 at institutional level, n=55 at departmental level

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## Interview Results: Catalysts for Policy Development

- Meal plan requirement
  - "To be released from an actual... required plan, they have to provide medical documentation that they are physically at risk by purchasing food on campus. So that is quite a lengthy process."
- Heightened awareness for legal implications as result of Lesley Settlement <sup>(HSE Legal Currents, 2013)</sup>
  - "Because of the Lesley case, we now have forms that students have to fill out if they request different housing accommodations or getting off the meal plan."
- Involvement of other departments within CU
  - "We work very closely with Disability Services... they are involved when a student files a 504 plan based on a food allergy. We work with Disability Services to make sure that we're doing what the ADA says we should be doing."

## Questionnaire Results: Hypothesis Testing

H<sub>1</sub>: Public CUs will have greater likelihood of formalized policies than private CUs

- Hypothesis supported at  $p < .1$  level
  - $Z=1.39, p = .087$
- 36 (80%) public institutions had formalized departmental level policies
- 19 (63%) private institutions had formalized departmental level policies

## Questionnaire Results: Hypothesis Testing

H<sub>2</sub>: Contract managed operations will have greater presence of formalized policies than self-operated.

- Hypothesis supported at  $p < .05$ 
  - $Z = 2.32, p = .01$
- 12 (86%) contract managed operations had formalized departmental level policies
- 43 (69%) self-operated foodservices had formalized departmental level policies

## Questionnaire Results: Accommodation Practices

- Practice scores computed out of 16 questionnaire items
  - Examples: Menus designated with major allergens, designated allergen safe production area
- Mean practice score 9.01 (SD= 2.79)
  - Range = 3 - 16

## Questionnaire Results: Hypothesis Testing

H<sub>3</sub>: Private CUs will follow a larger number of food allergy accommodation practices than public CUs.

- Insufficient evidence to support hypothesis
  - $p = .365$
- Practice score computed out of 16 items
- $\mu = 8.79$  (SD = 2.79) public
- $\mu = 9.17$  (SD = 2.79) private

## Organizational Culture

"Culture, to me, is the belief system, the practices that you put in place and you live... It's not necessarily the rules or the systems. It's how you run the operation and how you live."

-- (Hank, Midwest)

## Questionnaire Results: Hypothesis Testing

H<sub>4</sub>: Clan culture will be the predominant organizational culture type in CU foodservice departments

- Clan culture (n=29, 41.4%)
- Hierarchy culture (n=23, 30.3%)
- Market culture (n=7, 10%)
- Adhocracy culture (n=6, 7.9%)

## Interview Results: Description of Clan Culture

- Extended family and nurturing environment
  - "We're kind of like their family and make them feel like they're at home" [in relation to students]
  - "A lot of our student employees are also very close to their direct supervisors as well... Our staff are really personable and they do treat each other like an extended family."
- Mentoring and teamwork
  - "We love our chefs to mold and mentor those under them, make sure that they can grow in their own individual way"

## Interview Results: Description of Hierarchy Culture

- Driven by policies and procedures
  - "If this happens, then this form must be filled out in this amount of time.... We have some must-do's that there's no give on"
- Control and stability
  - "The control is very important for feeding thousands of people and keeping our costs in line."

## Questionnaire Results: Hypothesis Testing

H<sub>5</sub>: Food allergy accommodation practices differ based on culture type of CU foodservice operations

- Hypothesis not supported
  - $F(4,45) = 1.142, p = .349$

H<sub>6</sub>: Quality of food allergy accommodation policies differ based on the culture type of the operation

- Hypothesis not supported
  - $F(4,47) = 1.213, p = .318$

## Discussion: Food Allergy Accommodations and Clan Culture

- Clan culture in foodservice organizations may contribute to heightened customer responsiveness and customer service (Koutroumanis & Alexakis, 2009).
- Personal connections contribute to responsiveness
  - "The fact that we, as a department, function more as a family, we bring these students in and tell them our story... I try to follow through that when students come to see us, because this is often their first time away from their parents and they're trying to learn how to function as adults and be able to advocate for themselves. And that's the big thing is, I'm here to help them in any way, shape, or form that I can to make sure that their voice is heard and that they're understood."

## Discussion: Food Allergy Accommodations and Hierarchy Culture

- Policies and procedures contribute to stability and control within organization
- "I think with the culture being formal and precise and falling back on policies, I think it gives us a strict direction on how to handle it. It's very much that formal hierarchy policy system that we have in place, much like the overall facility. So I think we certainly mirror that as professionals."

## Conclusions

- Differences in presence of policy exist based on demographic variables examined
  - Greater presence among public institutions
  - Greater presence among contract managed operations
- Clan culture and hierarchy culture most prevalent
  - Unable to detect statistically significant differences in accommodation based on culture types
  - Characteristics of both may have practical implications for accommodation efforts

## Opportunities for Future Research

- Examine content of published policies using qualitative artifact analysis methods
- Evaluate effectiveness of accommodation efforts from CU administrator, foodservice professional and student perspectives
- Investigate perceptions of organizational culture from more than one professional per institution

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