



**COLLEGE OF EDUCATION
AND HUMAN SCIENCES**

CONTEXT MATTERS:

USING DIFFUSION OF INNOVATIONS THEORY TO ADAPT EAT
FAMILY STYLE TO FAMILY CHILD CARE HOME PROVIDERS

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DEFENSE PRESENTATION FOR MASTERS DEGREE IN NUTRITION AND HEALTH
SCIENCES

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PRESENTATION OUTLINE



1. Background
2. Methods
3. Results
4. Discussion
5. Implications



BACKGROUND



CHILD CARE: AN AVENUE FOR PREVENTING CHRONIC DISEASE

Prevalence of child care¹

- 15 million children under the age of six are enrolled

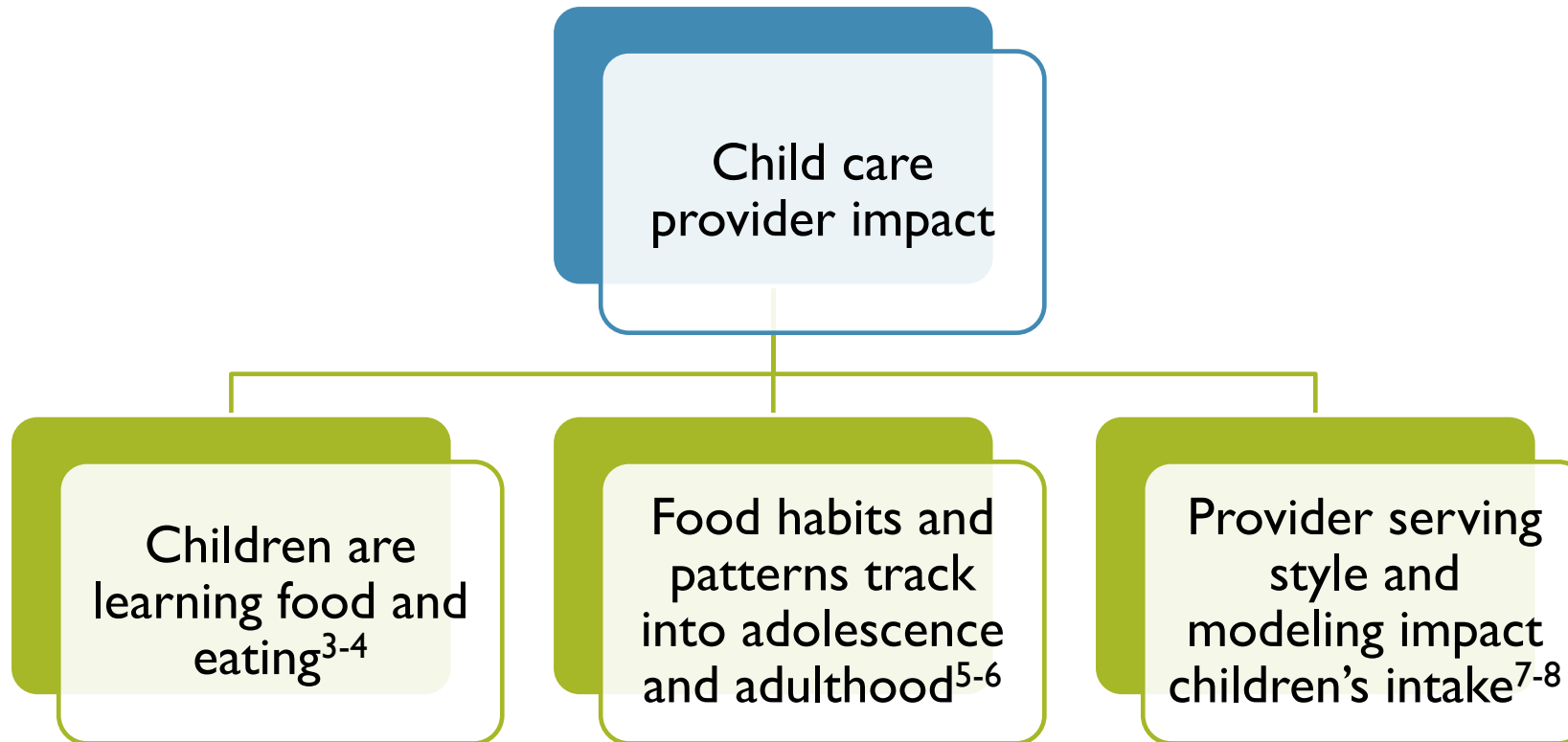
Time spent in child care²

- Approximately 33 hours/week
- Consume up to five meals per day

1. Child Care Aware of America. (2017). Annual State Fact Sheets. Retrieved from https://usa.childcareaware.org/wp-content/uploads/2017/07/FINAL_SFS_REPORT.pdf

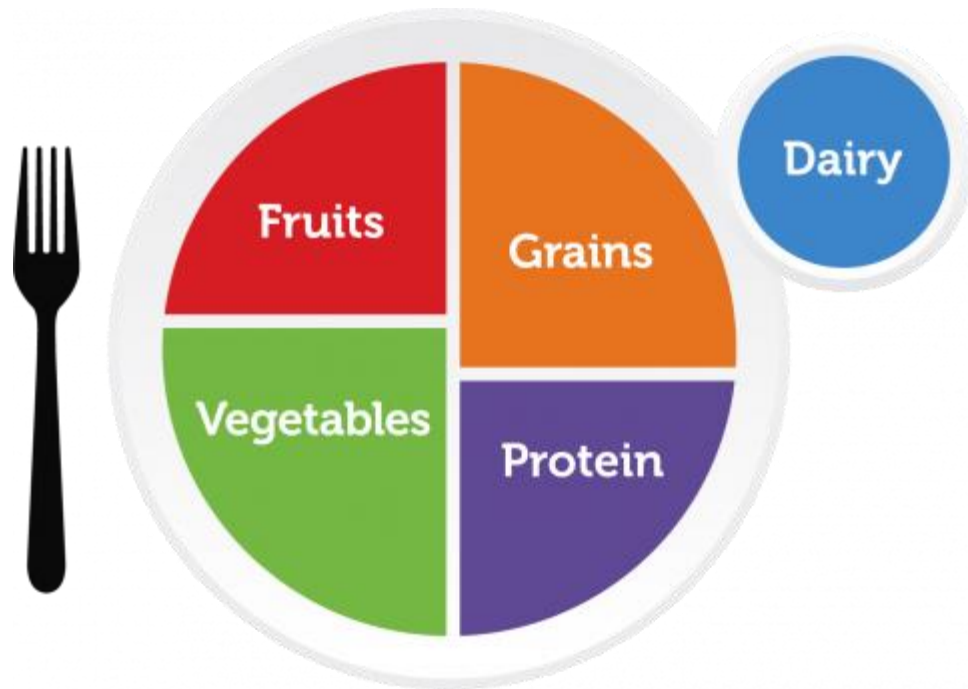
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CHILD CARE: AN AVENUE FOR PREVENTING CHRONIC DISEASE



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CHILDREN IN CHILDCARE ARE NOT MEETING DIETARY RECOMMENDATIONS



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EXTENSION PROGRAM: ECOLOGICAL APPROACH TO FAMILY STYLE



EAT Family Style

- A Responsive Feeding Program -



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RESPONSIVE FEEDING EVIDENCE BASED PRACTICES: CURRENT PREVALENCE

- Nebraska¹⁵
 - 50% of child care providers ate the same foods and beverages as children at meals
 - less than 43% of child care programs served meals family style.
- In Illinois CACFP participating child care programs:¹⁶
 - 34% served meals family style
 - 33% of providers did not always eat the same foods served to children
 - 27% of providers did not always sit with children during meals
- In Minnesota and Wisconsin¹⁷
 - 32% of child care programs reported using food as rewards and punishment
 - 51% have at least one adult sit at the table and eat the same food served to the children.

WHY RURAL FAMILY CHILD CARE HOME PROVIDERS

Focus on rural family child care homes

- Nebraska – 82 out of 93 counties are rural¹⁸
- More prominent in rural areas¹⁹
- Children in rural areas have increased risk for obesity²⁰

Prevalence of child care programs²¹

- Child care centers (CCC) – 902
- Family child care homes (FCCH) – 1803

Lower implementation of responsive feeding EBPs¹⁷

- 21% of rural FCCH providers reported serving meals family style
- Challenge more often reported by FCCH providers than center based providers ($p < .05$)
 - Lack of time to sit and eat with children
 - Lack of providers

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CONTEXT MATTERS: ORGANIZATIONAL STRUCTURE

CHILD CARE CENTER

FAMILY CHILD CARE HOME



Characteristic	Child Care Centers	Family Child Care Homes
Geographic difference	More prevalent in urban areas	More prevalent in rural areas
Number of children cared for	Can care for more than 13 children	Care for no more than 12 children FCCH I – up to 8 children FCCH II – up to 12 children with 2 adults
Classroom structure	Multiple classrooms with children separated by age	Located in providers' home with children of mixed age groups
Role of Staff	Multiple staff with separate roles -Lead Teacher/ Ast. Teacher vs Director vs Cook	FCCH owner, provider, and cook
Context-based strengths/challenges	Providers have less control over food served Serve more healthier foods more often	Provider has more control over food served Serve less healthier foods
	Less likely to attend nutrition training	More likely to attend nutrition training

KNOWLEDGE-GAP

1. Context Matters: EAT Family Style needs to be adapted to FCCH
2. Little research has explored why FCCH providers have a lower implementation of responsive feeding practices

OBJECTIVES

1. To determine FCCH providers' perspectives for implementing evidence-based responsive feeding practices using the Roger's Diffusion of Innovation theory

2. To use the lessons learned in Objective 1 to make recommendations for adapting the EAT Family Style intervention to meet the needs of FCCH providers.



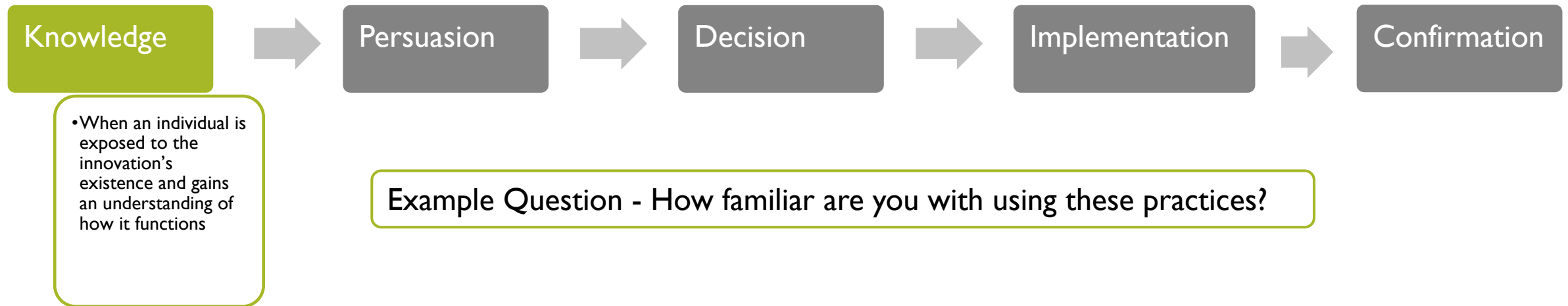
METHODS



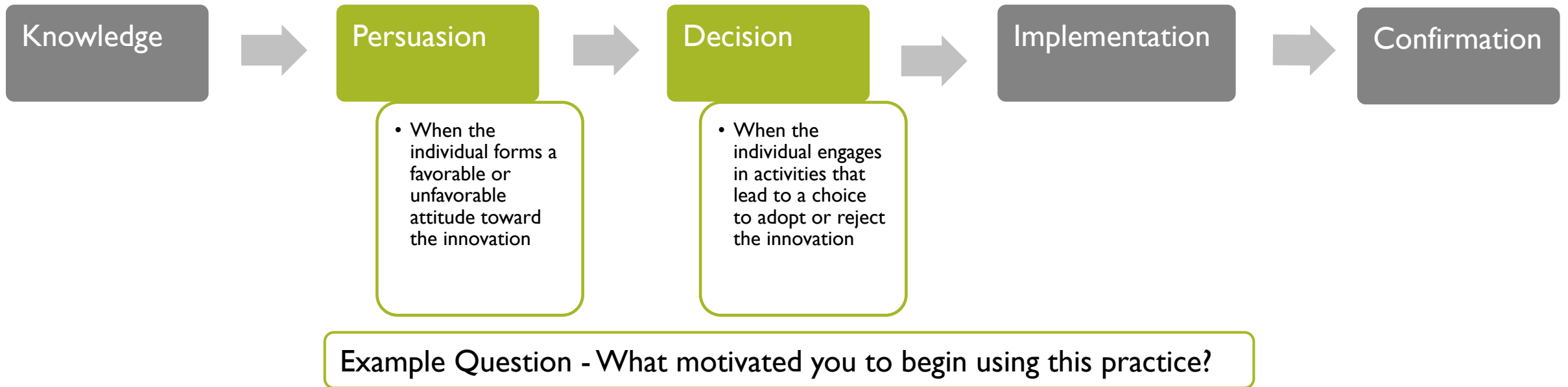
THEORETICAL FOUNDATIONS – DIFFUSION OF INNOVATIONS



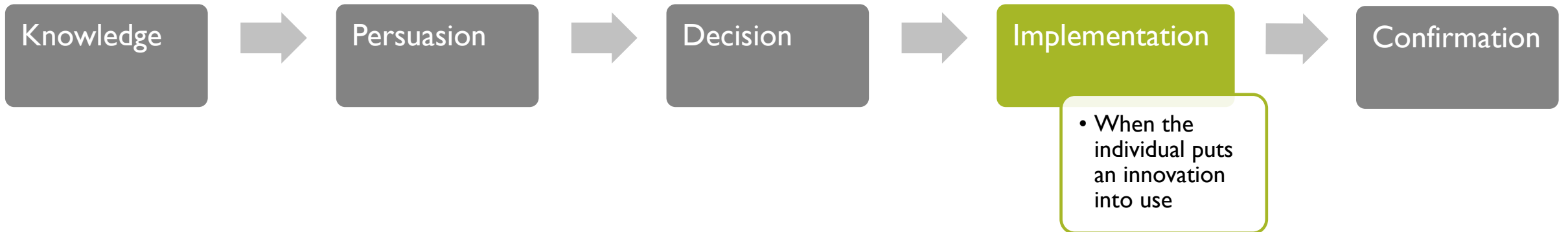
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THEORETICAL FOUNDATIONS – DIFFUSION OF INNOVATIONS

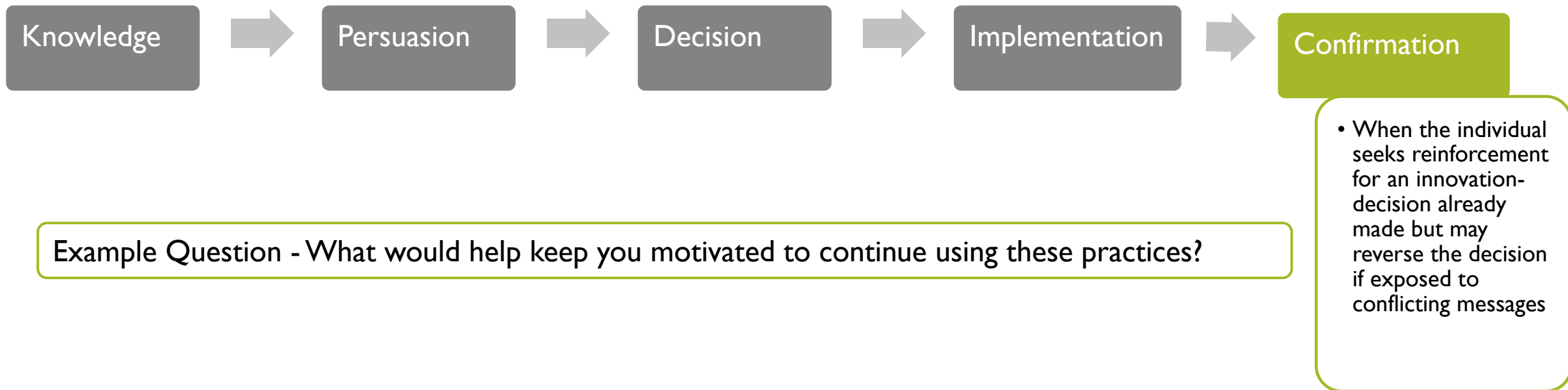


THEORETICAL FOUNDATIONS – DIFFUSION OF INNOVATIONS



Example Question - What, if any, difficulties did you have when you began this practice?

THEORETICAL FOUNDATIONS – DIFFUSION OF INNOVATIONS



METHODS

- Qualitative Design
 - Research focusing on FCCH provider perspectives is scarce
- Focus Groups
 - Participant interaction will yield more information
 - Cooperative conversation
- Semi-Structured Interviews
 - Conversational-style to elicit richer discussion
 - Flexibility to explore topics that come up in conversation
 - Encourages participants to be partner in research

METHODS – SAMPLING AND RECRUITMENT

1. Recruited FCCH providers from a pool of (N=312) of providers who completed the Nebraska Go NAP SACC intervention²⁴
2. Checked Inclusion Criteria (n=175)
 - Licensed FCCH provider in rural Nebraska
 - Participating in CACFP
 - 19+ years old

METHODS – SAMPLING AND RECRUITMENT

3. Applied Maximum Variation Purposive Sampling²⁵

- **Rurality**
- Selected providers implementing a range (never, sometimes, often, always) of responsive feeding EBPs²⁴
 - When in classrooms during meal and snack times, teachers and staff eat and drink the same foods and beverages as children
 - Children always choose and serve most or all of the food themselves
 - Teachers enthusiastically role model eating healthy foods served at meal and snack times

METHODS – SAMPLING AND RECRUITMENT

4. Sent an email inviting providers to participate (n=80)
5. Administered survey (n=23)
 - Demographics
 - Use of responsive feeding practices
 - Preferences for timing of focus group
6. Organized focus groups using results of survey
 - Each focus group included a participants reporting a range of responsive feeding EBPs (never, sometimes, often, always)

METHODS – DATA COLLECTION

- 4-5 FCCH providers per group
- Interview Protocol
 - Diffusion of Innovations
 - Adapted from previous studies²⁶⁻²⁸
- Approximately 90 minutes

METHODS – DATA COLLECTION

Saturation – when focus group reveals no new information²³

- Saturation reached after 6 focus groups

Focus group sessions conducted via Zoom

- To increase reach and inclusion for rural providers across the state of Nebraska
- COVID-19 Precautions
- Zoom session were recorded

METHODS – DATA ANALYSIS

- Transcripts uploaded into Nvivo (Version 12 QSR International Pty Ltd., 2020)
- Data analyzed by qualitatively trained researchers
- Thematic Analysis²⁹

Thematic Analysis Steps

1. Familiarize yourself with the data
2. Generate initial codes
3. Search for themes
4. Review themes
5. Define and name themes
6. Produce the report



RESULTS



RESULTS - DEMOGRAPHICS

- Table 1. Demographic characteristics
- 6 focus groups with N=19 providers
 - 2-4 participants/focus group
 - 75-90 minutes
 - February 2021 through June 2021

Table 1. Demographic characteristics	% (N=19)
Gender	
Male	0
Female	100
Race	
White	94.7
Mixed	5.2
Ethnicity	
Hispanic or Latina/o/x	0
Non-Hispanic or Latina/o/x	100
Educational Background	
High school graduate or GED	26.3
Some college or 2 year-year degree (Associate's)	57.9
4-year degree (Bachelor's)	26.3
Graduate or Professional Degree	5.3
	Mean ± SD
Age (years)	40.3 ± 8.1
Years of Experience	14.5 ± 8.4
Average children in care	11.6 ± 4.8
0-23 months	2.8 ± 1.3
24-35 months	2.3 ± 1.0
3-5 years	4.3 ± 1.3
Older than 5 years	2.6 ± 2.2

RESULTS: MAXIMUM VARIATION PURPOSEFUL SAMPLING (cntd.)

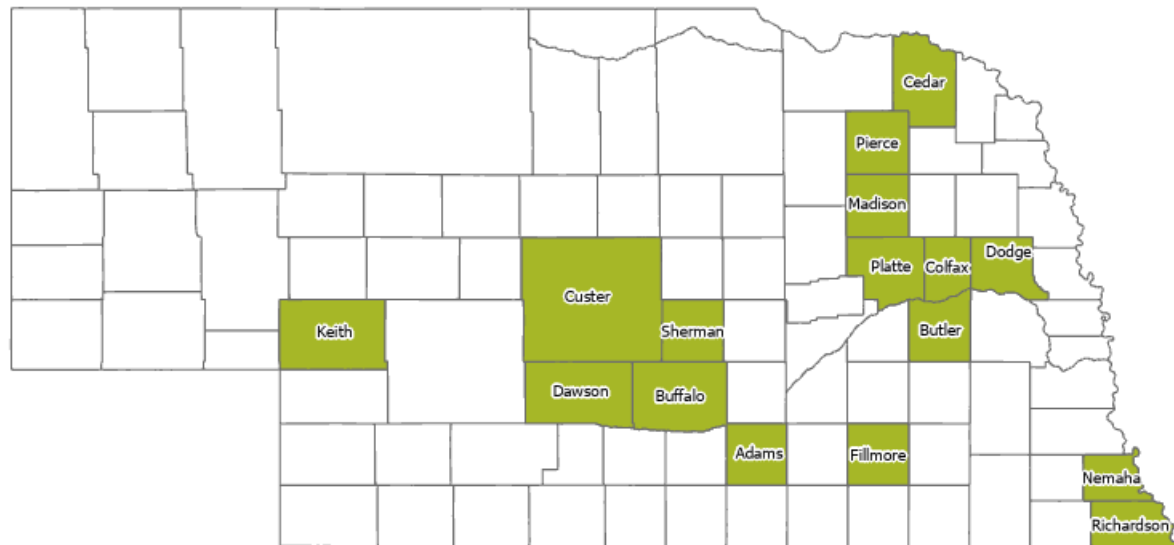


Table 2. Provider reported frequency of responsive feeding EBPs

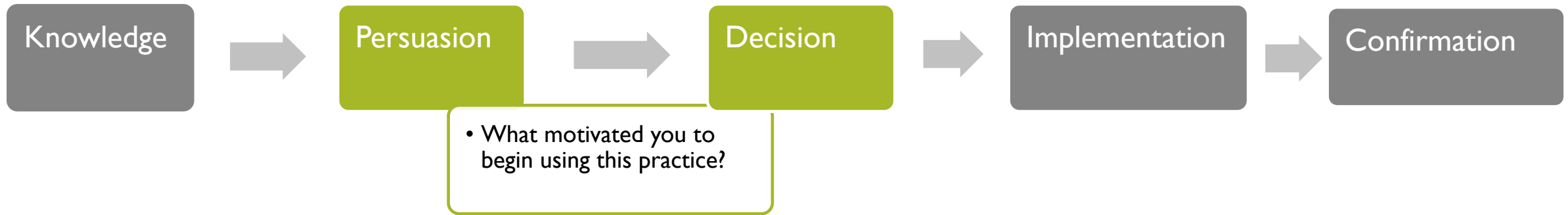
During lunch, I sit at the table with children.	N=19
Always	5
Often	5
Sometimes	5
Never	4
During lunch, I eat at the table with children.	
Always	3
Often	2
Sometimes	9
Never	5
During lunch, I eat the same foods as children.	
Always	5
Often	7
Sometimes	7
Never	0
During lunch, children decide how much they want to eat from the foods served.	
Always	9
Often	5
Sometimes	4
Never	1

RESULTS – ROGERS DIFFUSION THEORY: KNOWLEDGE



- All providers reported becoming familiar with responsive feeding EBPs through various communication channels
 - CACFP
 - Go NAP SACC
- All providers had learned about responsive feeding EBPs as a best practices recommendation
- Providers used “family style” interchangeably with responsive feeding EBPs
- Acknowledged they were familiar with responsive feeding EBPs but were not fully implementing

RESULTS – PERSUASION AND DECISION



Positive attitude

Motivators

1. Benefits of responsive feeding EBPs
2. Encouragement from other providers
3. Previous experience from a child care center

“To be honest, I think it was my own fears, ‘cause I went to the NAP SACC training, and my now friend was like, ‘You just got to try it. Just try family style.’ I’m like, ‘You want me to try this with 18 months and 2 year-olds, like, you’re crazy.’ And she’s like, ‘Just try it.’”

RESULTS – PERSUASION AND DECISION



Negative attitudes - Challenges

- **Perceived challenges for adoption of role modeling**
 - Related to FCCH setting
 - Infants mixed with older children
 - Multiple roles during mealtimes
 - Lack of space at the dining room table
 - Dietary Restrictions

“[It’s] so stressful for the kids too, because they don’t want to listen to the babies cry either. You know, they’re tired, they’re ready for a nap, they don’t have a lot of patience left with babies or with each other.”

RESULTS – PERSUASION AND DECISION



Perceived challenges to allowing children to select their own portions

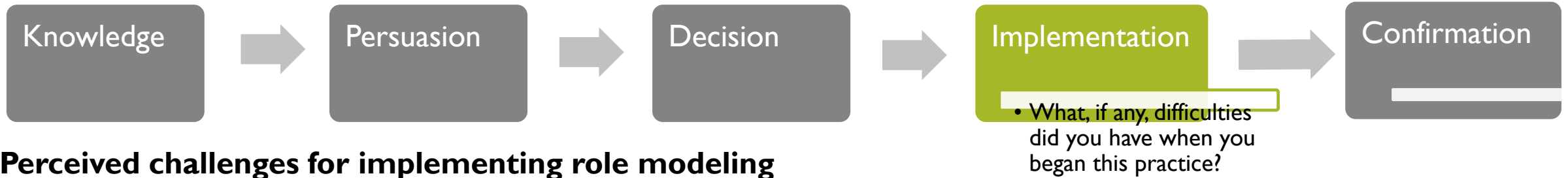
- Concern that children would over or under-serve

Perceived challenges to allowing children to serve themselves

- Concern about mess
- Concern that younger children are too young
- Need for age-appropriate serving utensils

“Unfortunately I have carpet under our food area. I just have too many littles who would be too crazy. It would probably send me into an anxiety attack if they were pouring something out of a pitcher.”

RESULTS - IMPLEMENTATION



Perceived challenges for implementing role modeling

- Multiple roles that providers play throughout the day
- Mixed ages of the children in their care.

Perceived challenges for allowing children to serve themselves

- Lack of age-appropriate utensils

“Somebody needs something or Tommy has to go potty or you know, something like that. It just seems like some days there's just constantly something.”

RESULTS - IMPLEMENTATION



Strategies to implementing role modeling

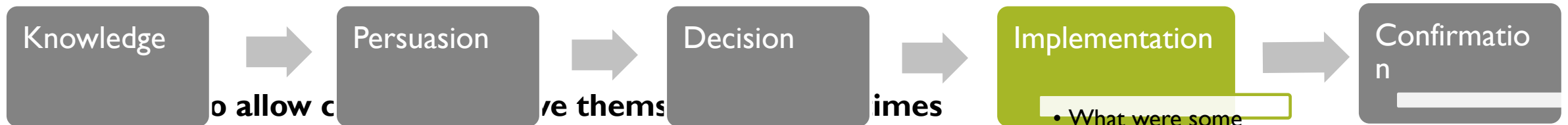
- Explain dietary restrictions
- Seat infants near or at the table with providers
- Share mealtime duties with other provider (FCCH II)

Strategies for allowing children to select their own portions

- Use verbal cues to direct children on how much to take
- Allow seconds for children who are still hungry
- Assure children there is enough for everyone

- What were some strategies used to overcome these challenges?

RESULTS - IMPLEMENTATION



- Start slowly
- Acquire age-appropriate utensils
- Purchase inexpensive floor mats to make spills easier to clean

Strategies to manage children with mixed age groups during mealtime

- Seat younger children near providers at the table
- Older children can peer model
- Adjust family style meal service depending on what is being served

RESULTS - IMPLEMENTATION

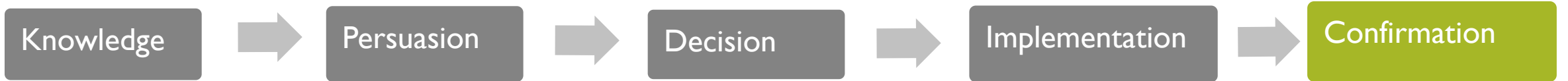


Strategies to manage children with mixed age groups during mealtime

- Older children can help with mealtime tasks
- Follow a structured routine during mealtime
- If possible – take care of infants needs during downtime

“We've tried to to start doing like an older one with a little one, you know if there's like an 18 month old that just needs help getting sanitizer and getting their face wiped we'll try to have like a 4 year old sit with them and make sure it gets done, so it's not all falling on the providers.”

RESULTS - CONFIRMATION



Benefits

- Supports healthful development
- Improved mealtime atmosphere
 - Less chaotic
 - More pleasant conversations
- Reduced food waste
- Children are more willing to try foods
- Gave providers the opportunity to enjoy lunch too

- What would help keep you motivated to continue using these practices?

“They did phenomenal starting off. Like it was, blew my mind. I think it was a week before we even had one spill, but until all everyone had open cups. It was crazy. I was like, cool, and we just never went back.”



DISCUSSION AND IMPLICATIONS



DISCUSSION

Knowledge

- Recommended by trainings and programs
 - However responsive feeding EBPS are not required
 - Programs often only provide an overview

Persuasion, Decision and Implementation

- Novel Findings
 - FCCH context related challenges and strategies

DISCUSSION: CHALLENGES REPORTED IN CENTERS

Administrative level challenges

- Need for age-appropriate serving utensils³⁰⁻³¹

Teacher level challenges

- Messy and unhygienic³¹
- Children may overserve or underserve themselves³¹
- Teachers' dietary preferences³⁰

IMPLICATIONS FOR RESEARCH

Unlicensed child care homes

Child care homes that do not participate in CACFP or Go NAP SACC

Cultural context and influence on use of responsive feeding EBPs

IMPLICATIONS FOR PRACTICE

Recommend responsive feeding EBPs as a solution/innovation for a problem

- Children not meeting dietary recommendations
- Food wastage
- Stressful mealtimes

Include context specific content

- Mixed age groups
- Multiple roles
- Include strategies for infant feeding

IMPLICATIONS FOR POLICY

CACFP

- Policy for meal service style
- Implementing responsive feeding EBPs

Implications for Extension Professionals

- Context Matters
 - Understand that child care centers are different from family child care homes
- Deliver targeted training to address specific needs

LIMITATIONS

- Generalizability
- Timing of data collection
 - COVID-19
- Risk of social desirability bias from participants
- Limitations to the researcher's reflexivity

RECOMMENDATIONS FOR ADAPTING EAT FAMILY STYLE

1. Develop resources to address context related challenges to implementing responsive feeding EBPs.
 - Managing the mixed ages of children at mealtimes
 - Managing multiple roles during mealtimes
 - Develop resources to address the space in the FCCH
 - Encourage role modeling in creative ways
2. Provide resources to help providers implement family style meal service where children serve themselves
 - Age-appropriate utensils in packages sizes appropriate for FCCH
 - Floor mats providers can use to reduce stress about messes and spills

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- Participating family child care home providers in Nebraska





THANK YOU



QUESTIONS