
Intuitive Eating:

Perspectives from college students

Under the direction of
Jennifer D. McMillen &
Andrea McPherson

Meredith College

SNEB 2020

Jessica Long, MS
Caroline Coleman & Emily Watkins

By the end of the session
you should be able to...

- ❑ explain to a friend 3 aspects of intuitive eating.
- ❑ identify patterns in intuitive eating and visceral sensitivity scores.
- ❑ discuss with a colleague ideas you have about encouraging intuitive eating at your institution.



Objectives!

First we'll discuss
IE generally then
we'll look at our
project and
sample
deliverables

A little bit about Intuitive Eating

We will not talk about eat this...not that!





What do you know?

- When was the Intuitive Eating concept created?
- How many study abstracts populate if you search Intuitive Eating in PubMed?
- What theory did the creators utilize?



What do you know?

- **When was the Intuitive Eating concept created?**

1995

- **How many study abstracts populate if you search Intuitive Eating in PubMed?**

240

- **What theory did the creators utilize?**

Idea of ideal weight maintained by responding to hunger and satiety cues.

Study Methods

What was our purpose?

To gain insight into the eating habits of college students.

Focus was given to understanding motivations and barriers for using components of intuitive eating!



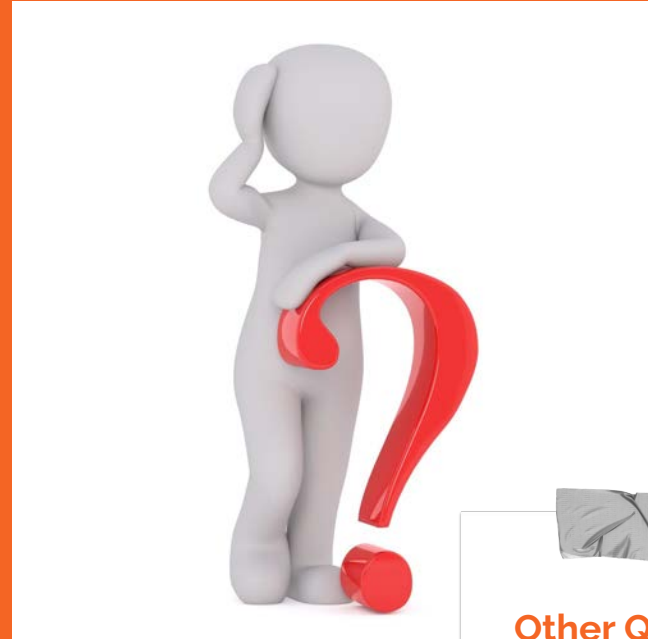
Quantitative Hypothesis:

Higher score on IES-2 would have lower score on VSI

Qualitative Research Questions:

How do students use bodily cues to inform food choices?

What other factors influence food choice and IE practices?



Other Questions

Are there differences based on institution characteristics?

Private/Public?

Small/Large?

Outline of Methods

Recruiting/Participants

Email recruiting

2 college/university

Age 18-25

283 total participants

Survey

Qualtrics online survey

Consent

Demographics

IES-2 and VSI

Focus Groups

Qualtrics invite

1 on each campus

~45 minutes

Moderator guide was
semi-structured

Participants

283 Undergraduate students (18-25)

168 from large state university

115 from small private college



Gender

Male: 57

Female: 225

Prefer not to disclose: 1

Outline of Methods

Recruiting/Participants

Email recruiting

2 college/university

Age 18-25

283 total participants

Survey

Qualtrics online survey

Consent

Demographics

IES-2 and VSI

Focus Groups

Qualtrics invite

1 on each campus

~45 minutes

Moderator guide was
semi-structured



Critical Thinking:

Why subscales?

To give a holistic and detailed measure! There are several components of intuitive eating

IES-2 Assessment

23 item scale (Tykla, 2013)

Likert style (5 point)

Has 4 subscales

Designed to assess the degree/intensity of intuitive eating

IES-2 Subscores

UPE

Unconditional
Permission to Eat

6 questions

EPR

Eating for Physical
Rather than
Emotional Reasons

8 questions

RHSC

Reliance on Hunger
and Satiety Cues

6 questions

B-FCC

Body-Food Choice
Congruence

3 questions

IES-2 Example Questions

1. I try to avoid certain foods high in fat, carbohydrates or calories	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
2. I have forbidden foods that I don't allow myself to eat	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
3. I get mad at myself for eating something unhealthy	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
4. If I am craving a certain food, I allow myself to have it	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree



Critical Thinking:

What does gastrointestinal specific anxiety mean?

Cognitive-behavioral responses to the perceived fear of gastrointestinal response!

Visceral Sensitivity Assessment (VSI)

15 item scale (Labus, 2004)

Likert style (6 point)

Unidimensional

Designed to assess the **degree/intensity of gastrointestinal specific anxiety**

Possible Score **0-90**

VSI Example Questions

1. I worry that whenever I eat during the day bloating and distension in my belly will get worse	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
2. I get anxious when I go to a new restaurant	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
3. I often worry about problems in my belly	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
4. I have a difficult time enjoying myself because I cannot get my mind off of discomfort in my belly	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree

Outline of Methods

Recruiting/Participants

Email recruiting

2 college/university

Age 18-25

283 total participants

Survey

Qualtrics online survey

Consent

Demographics

IES-2 and VSI

Focus Groups

Qualtrics invite

1 on each campus

~45 minutes

Moderator guide was
semi-structured

Extensive Qualitative Training & Moderator Guide Development

Qualitative Research Basic Training

Literature Review and Quantitative Data Informed Moderator Guide Development

Summarization technique training for listening skills and interpersonal communication

Multiple Mock interviews

Mock focus group

Weekly meetings for feedback and moderator guide adjustments

Verbatim transcripts from video records to word documents for text analysis

Thematic analysis by 100% group consensus

Moderator Guide Example Questions and Follow-up Probes

1. How do you recognize when you are hungry?

How does your body let you know when to eat?

What words do you use to describe hunger?

2. How do you recognize when you are full?

How does your body let you know when to stop eating?

How do you feel when you satisfy your hunger?

3. How do you use your hunger cues to help you decide what foods to eat?

Tell me about the foods you are most likely to eat when you are hungry.

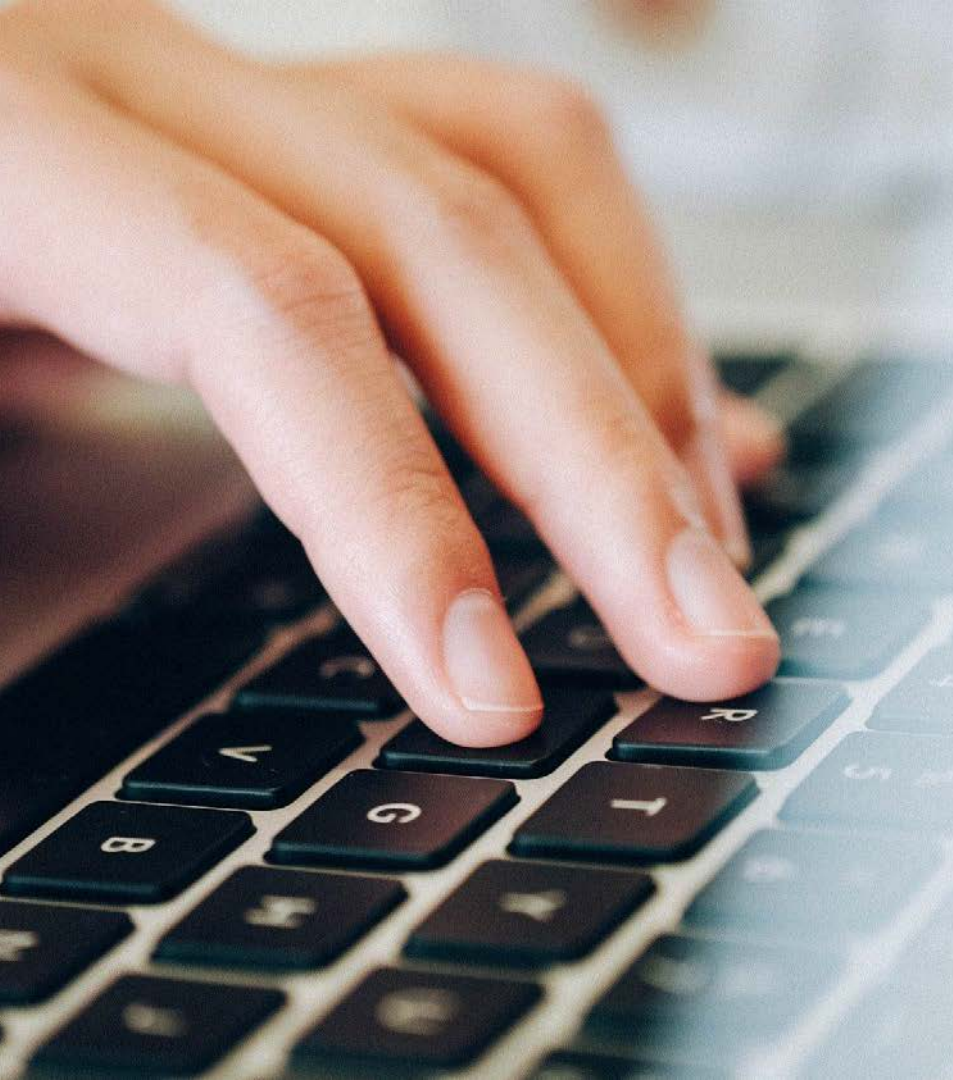
When do you find it difficult to recognize that you're hungry?

4. How do you use your fullness cues to help you decide when to stop eating?

What foods are you more likely to eat when you are full?

When do you find it difficult to listen to your body's fullness cues?

Study Results



Survey Results

Participant Demographics

Gender

IES-2 and VSI correlation

Participant Demographics

Univariate Analysis			
Variable		IES-2 Score (N = 283)	VSI Score (N = 279)
Gender, n (%)		P = 0.002	P = 0.008
Male	57 (20.14)		
Female	225 (79.51)		
Prefer not to disclose	1 (0.35)		
Classrank, n (%)		P = 0.82	P = 0.43
First-year	28 (9.89)		
Sophomore	87 (30.74)		
Junior	76 (26.86)		
Senior	81 (28.62)		
Other	11 (3.89)		
Institution, n (%)		P = 0.46	P = 0.18
NCSU	168 (59.36)		
Meredith	115 (40.64)		
Ethnicity, n (%)		P = 0.54	P = 0.77
Caucasian	224 (79.15)		
African American	11 (3.89)		
Asian American	21 (7.42)		
Latino/Latina	9 (3.18)		
Multiracial	15 (5.30)		
Prefer not to disclose	3 (1.06)		
Age, mean (SD)	19.88 (1.32)	P = 0.22	P = 0.08

Participant Demographics

Question: Do you think males or females tended to score higher on IES? What about VSI?

Univariate Analysis			
Variable		IES-2 Score (N = 283)	VSI Score (N = 279)
Gender, n (%)		P = 0.002 ★	P = 0.008 ★
	Male		
	Female		
	Prefer not to disclose		
Classrank, n (%)		P = 0.82	P = 0.43
	First-year		
	Sophomore		
	Junior		
	Senior		
Institution, n (%)		P = 0.46	P = 0.18
	NCSU		
	Meredith		
Ethnicity, n (%)		P = 0.54	P = 0.77
	Caucasian		
	African American		
	Asian American		
	Latino/Latina		
	Multiracial		
	Prefer not to disclose		
Age, mean (SD)		P = 0.22	P = 0.08

Males tended to score higher than females on the IES

Females tended to score higher than males on the VSI

Cain, K. C., Jarrett, M. E., Burr, R. L., Rosen, S., Hertig, V. L., & Heitkemper, M. M. (2008). Gender Differences in Gastrointestinal, Psychological, and Somatic Symptoms in Irritable Bowel Syndrome. *Digestive Diseases and Sciences*, 54(7), 1542–1549.

Pingitore, R., Spring, B., & Garfield, D. (1997). Gender differences in body satisfaction. *Obesity research*, 5(5), 402–409.

Alm, S. & Laftman, S. B. (2018). The gendered mirror on the wall: Satisfaction with physical appearance and its relationship to global self esteem and psychosomatic complaints among adolescent boys and girls. *Young*, 26(5), 525-541.

IES & VSI

Is this surprising to you?
Or what you expected?

Pearson Correlation Coefficients, N = 279 Prob > r under H0: Rho=0		
	IESTotal	VSI
IESTotal	1.00000	-0.43001 <.0001
VSI	-0.43001 <.0001	1.00000

R-Square	Coeff Var	Root MSE	VSI Mean
0.184909	39.30836	14.78642	37.61649

Not entirely unexpected...

Boyd, C., Abraham, S., & Kellow, J. (2005). Psychological features are important predictors of functional gastrointestinal disorders in patients with eating disorders. *Scandinavian Journal of Gastroenterology*, 40(8), 929–935.

Abraham, S., & Kellow, J. (2011). Exploring eating disorder quality of life and functional gastrointestinal disorders among eating disorder patients. *Journal of Psychosomatic Research*, 70(4), 372–377.

Perkins, S., Keville, S., Schmidt, U., & Chalder, T. (2005). Eating disorders and irritable bowel syndrome: Is there a link? *Journal of Psychosomatic Research*, 59(2), 57–64.

The background of the slide is a photograph of numerous small green seedlings growing in black plastic pots. The pots are arranged in rows, and the seedlings are at various stages of growth. A white rectangular box with a torn top edge is positioned on the left side of the slide, containing text about dominant emergent themes.

Dominant Emergent Themes

Data collection is ongoing.

Focus groups will continue until saturation is reached.

Focus Group Results

2 Focus Groups

10 total participants

3 dominant emergent themes

8 sub-themes



External Societal Influences

Scheduling/routines/convenience

Cost vs. waste

Perceptions of healthy and unhealthy...opportunities for nutrition education



**Our tomato plant
needs
Sunshine**

Sunshine represents
supportive external
societal influences

Participant Quote:

“I definitely prioritize my work over going to eat”

**Scheduling,
Routines, &
Convenience**

Participant Quote:

**“[When] we go out to eat...
I feel I have to eat
everything in front of me or
I’m being wasteful.”**

**Cost
Vs.
Waste**

Participant Quote:

“If I’m feeling really bad...when I ate too unhealthily...I’ll limit myself despite how hungry I am.”

**Perceptions
of healthy &
unhealthy**

External Interpersonal Influences

Social comfort/discomfort when eating with others

Reaction to feeling hungry

Dependence on others/autonomy



**Our tomato plant
needs
Oxygen (air)**

Oxygen (air) represents
supportive external
interpersonal influences

— Participant Quote:

“Social situations where everyone has gotten 1 or 2 plates... I’ll go grab another... but if I’m the only one eating, maybe I should stop.”

**Social
(dis)comfort
when eating
with others**

— Participant Quote:

“...if you are around a bunch of other people and they aren't hungry it feels awkward to be hungry.”

**Reaction
(Guilt) to
Hunger**

Participant Quote:

**“I live at home so whatever
my mom cooks [is what I eat]”**

**Dependence
on others
(Autonomy)**

Internal Influences

Physiological awareness/lack of
physiological awareness
(taste override)

Emotional eating



**Our tomato plant
needs strong roots to
get water & nutrients**

Roots represent
supportive internal
influences

Participant Quote:

**“I’m always up for
dessert, even if I’m full.”**

**Physiologic
Awareness
(or lack of)**

— Participant Quote:

“I have a big problem with emotion eating. If I’m sad, I just want some French fries or [fast food].”

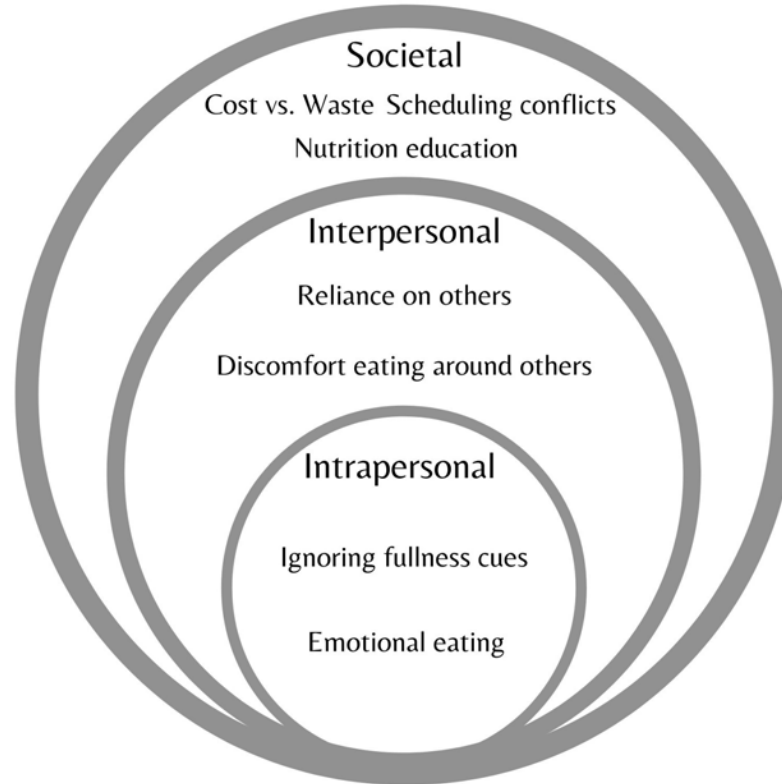
**Emotional
Eating**



When we have supportive external and internal influences the tomato can develop and ripen.

The tomatoes are the Intuitive Eating practices. At any given time, some are further along (more mature) than others.

Barriers to Intuitive Eating in College Students: A Qualitative Model



**Pulling it all together to
impact our community**

What do students see?



Why reporting sexual assault is a complex and personal decision

If you or a friend have experienced sexual assault or harassment, it's important to know that there isn't one "right" way to proceed. Here are some of the resources that are available to survivors.

Posted on June 24, 2020



Ask the nutritionist: "I am healthy but on the skinny side. How do I gain weight?"

If you have a low body weight and wish to gain weight for health or sports-related reasons, here's how to do it.

Posted on June 24, 2020



Our 4 favorite stress-busting yoga routines

These four yoga routines are perfect for undoing the stresses of college life.

Posted on June 24, 2020



FitnessU: Chest and back exercises for posture, balance, and strength

Add these chest and back exercises to your workout to avoid rounded shoulders, improve your posture, and create upper body balance.

Posted on June 17, 2020



How healthy is your relationship? Take the quiz

Is your partner's behavior normal or a big red flag that they might be controlling or abusive? Take our quiz to see if you're in a healthy relationship.

Posted on June 17, 2020



June is Men's Health Month: Here are 4 tips to feel your best

This is a PSA to all men to go get your annual check-up (plus three other healthy habits you should build to stay feeling good).

Posted on June 17, 2020

RELATED ARTICLES

MORE FROM AUTHOR



FitnessU: Chest and back exercises for posture, balance, and strength



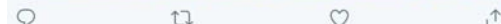
The power of body positivity, and why weight stigma matters



It is hard to find time to cook healthy meals as college students. So, here's some great and quick healthy recipes! [#TastyTuesday](#)

Recipes found here: soo.nr/ln8q

22 INSANELY HEALTHY MICROWAVE MEALS FOR COLLEGE STUDENTS



What do students see?

Home
About Us
Aquatics
Competitive Sports
Facilities
Fitness
Member Services
Outdoor Adventures
Piney Lake
Team QUEST

Center for Student Well-Being

Substance Use Prevention
SPARTA Peer Education
Violence Awareness & Prevention
Mental Health
Nutrition



UNCG Department of Recreation & Wellness

CENTER FOR STUDENT WELL-BEING AT KAPLAN

The Center for Student Well-Being is housed within the Department of Recreation and Wellness and strives to provide education and develop students' knowledge as it relates to their health and well-being. We believe that a student's success on campus is directly correlated with their understanding of their personal wellness journey. Focus areas include, but are not limited to, alcohol and substance use prevention, sexual health, nutrition and body image, mental health, and violence prevention. The Center for Student Well-Being, in collaboration with the Gender Diversity Working Group, is committed to affirming the lives of and promoting social justice for Trans* and Non-Binary people. We have created a comprehensive toolkit to support gender diverse students, located here: <https://bit.ly/2Z0EaAc>. Visit our calendar here [Center for Student Well-Being](#).

The Center for Student Well-Being Online is a Canvas-based resource where you can learn self-care. Topics include physical activity, rest, mental health, etc. Direct links to register for events and follow us on Instagram. Simply self-select and select any topic that interests you.

What do students see?

Member Services
Outdoor Adventures
Piney Lake
Team QUEST
Center for Student Well-Being
Substance Use Prevention
SPARTA Peer Education
Violence Awareness & Prevention
Mental Health
Nutrition
WELLNESS not weight
The Body Project
Sexual Health
Massage and Acupuncture

The Center for Student Well-Being Online Resource

The Center for Student Well-Being Online is a Canvas resource where you can learn self-care. Topics include nutrition, physical activity, rest, mental health, etc. Direct links to register for events and follow us on Instagram. Simply self-[ENROLL](#) and select any topic that interests you.

Intuitive Eating Workshop — Coming Spring 2020

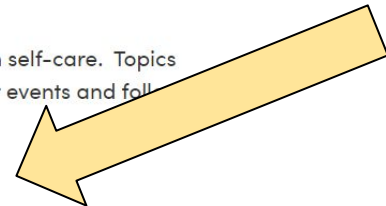
Intuitive Eating is a way to nourish your body to support physical and mental health. It includes honoring your hunger and fullness, eating mindfully, and making peace with food. It rejects the false promises of dieting. Dates, times, and registration details forthcoming.

Body Project

The **Body Project** is an interactive program found to improve body image and reduce eating problems in women. This peer-led workshop is offered in 4 sessions (60 minutes each). For more information, visit our [Body Project webpage](#).

Wellness Not Weight

Wellness Not Weight is a health-focused, justice-oriented campaign to raise awareness of the mental, emotional, and physical dangers of weighing. Fitness, well-being, and self-worth cannot be measured by the scale. To learn more, visit our [Wellness Not Weight webpage](#).



**Deliverable examples
based on student
identified barriers!**

INTUITIVE EATING

Barriers to look out for



External Societal Influences



SCHEDULES AND ROUTINES

Take a few minutes and plan for your day.
Bring along a nourishing snack.
Include meal times in your schedule.



COST AND WASTE

Rather than trying to "get your monies worth",
consider asking for a to go box!
It feels great to enjoy delicious leftovers.



HEALTHY AND UNHEALTHY

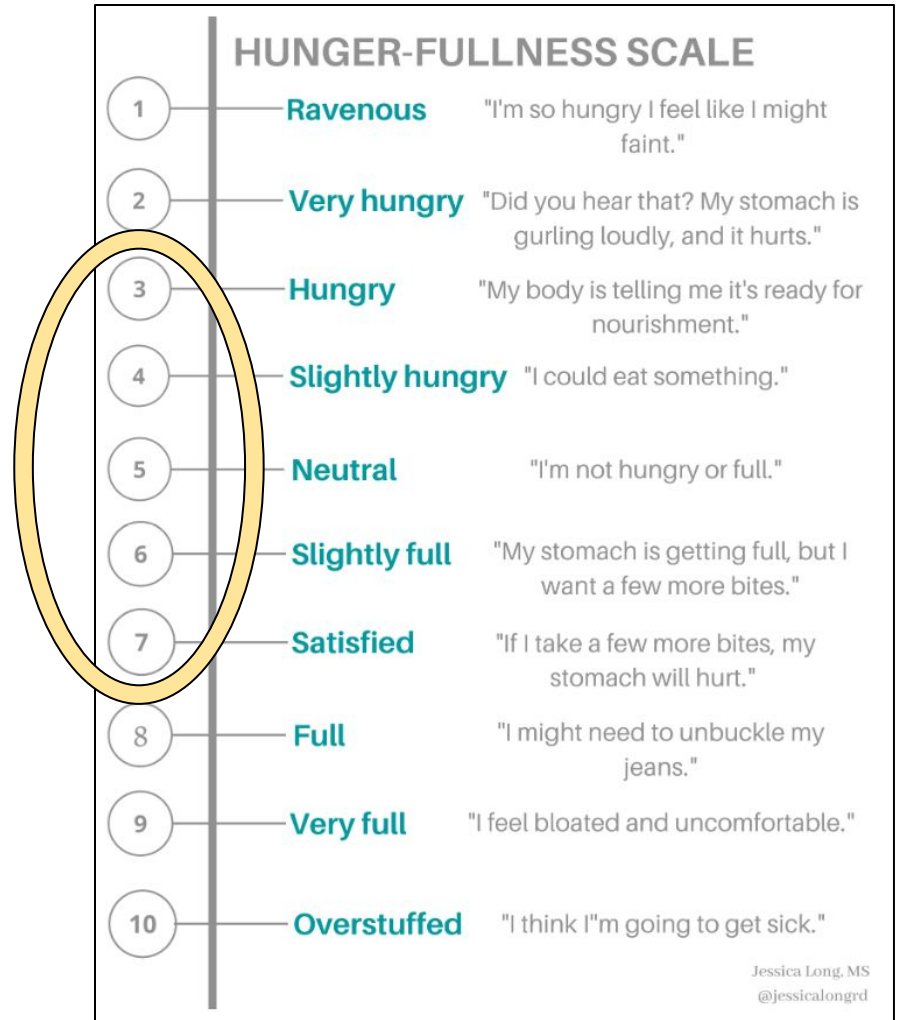
Practice letting go of strict labels for foods.
Empower yourself to eat nourishing foods in
moderation, focus on balance and variety.

For more info, visit

Infographic Example

Poster for Dining Hall:

Intuitive Eating Hunger-Fullness Scale



Campus Activity

Snack/Lunch
with a Professor



“Sometimes when
I’m hungry, I feel
that it’s wrong and
that I shouldn’t be
hungry.”



"I can trust my body
to tell me when it's
hungry. When it
does, I should honor
my body's needs."



Instagram Post Example

Simple Group Lesson Example

"I have a set schedule
around when I eat;
not really my stomach,
but my head."



"I don't usually eat at
this time, but my
stomach is rumbling,
so I'm going to have a
snack."





Twitter Message Examples

“Always keep snacks on hand. Be prepared for your hunger cues!”

“Listen to YOUR body & YOUR hunger cues. We all have different needs. Each of our plates should look unique!”

What makes these deliverables helpful?

They exist!

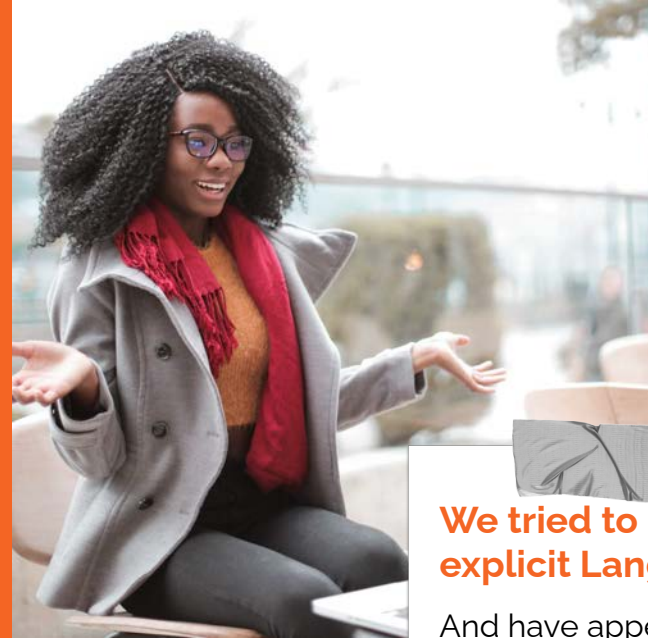
Encourage Intuitive Eating Practices

They have a single digestible idea

Respond to identified challenges

Utilize our participant ideas

Can be combined for coordinated campaign



We tried to use explicit Language

And have appealing visuals

And together provide a memorable message

—
Let's brainstorm together...

**Take a few minutes and
think about how you can use
IE positive language and
messaging in your work?**



Tips:

What info do they
need to know?

What language
can you use?

What services
would help?

Other ideas...

Free speech boards

Flyers

Dining Hall Offerings/Hours

Quick Meal/snack Tips

Podcast by students

IE concept reminder app/texts/etc.





Thank you for your time!

Questions?

