

A hand holding a stack of three donuts. The top donut is plain, the middle one has pink frosting and sprinkles, and the bottom one is plain. The background is a soft-focus indoor setting with a window and a plant.

# Managing emotional eating:

restoring relationships with food

**Dr. Sylvi Martin BScN RN ND**

## DISCLOSURE

- Various CE offers: [Learn.drsvimartin.com](http://Learn.drsvimartin.com)
  - Health Pro Membership
  - Regulation Proof Programs
  - The Virtual Naturopath
  - Delegating & Assigning Care
  - Avoiding Conflicts of Interest
- Regulatory Strategy & Consulting
- CONO - ICRC
- CCNM - Instructor, Intro to regulated practice
- The Confident Clinician - Educator
  - Eating Behaviour Workshop
  - Eating Intensive Series
  - Suicide Assessment
- CE courses: OAND, CCNM, BCNA, CNPBC, NHAA



**Dr. Sylvi Martin BScN RN ND**  
**naturopathic doctor**  
**nurse psychotherapist**



# Rose coloured glasses

**Dual practices focusing in mental health, mind-body medicine, gut-brain wellness, eating behaviour concerns**

Select training

- Enhanced cognitive behaviour therapy for eating disorders (CBT-E) - CREDO Oxford
- Mindfulness-Based Eating Awareness Training (MB-EAT) - Dr. J. Kristeller, PhD
- Cognitive behaviour therapy (CBT) - Wilfrid Laurier U
- CBT for ARFID - Rome GastroPsych
- Certified Intuitive Eating Counsellor - training & - supervision with E. Tribole, MS RDN
- Mind-body medicine - Harvard Medical School
- CHEF Coaching - Harvard

# Learning objectives

- 1 - Identify emotional eating and its potential impact on overall patient health.
- 2 - Understand and recognize common triggers and emotions associated with emotional eating.
- 3 - Learn effective strategies to help your patients manage emotional eating.





## What we *won't* cover

- Eating restriction linked to emotions
- In-depth critical appraisal of every research article referenced
- DSM-V criteria for eating disorders
- How to manage suspected eating disorders - refer to my 2022 OAND talk on this: *Exploring Disordered Eating in Naturopathic Practice*.

# 01

Identify emotional eating and its potential impact on overall patient health.

**What impacts food intake?**



# What impacts food intake?

- Homeostatic & physiological processes
- Hedonic processes: pleasure, reward, palatability
- Food rich environments
- Weight, weight stigma
- Emotions, moods, thoughts



# What is Emotional Eating?



# Emotional Eating (EE)

- Eating in response to emotional triggers rather than hunger
- Way cope with & manage emotions
- Linked to various emotions
- Foods of choice primarily hyper-palatable, energy dense.
- EE and depressive Sx positively correlated; both r/t higher BMI.
- EE related to higher sweet intake (both genders) and non-sweet foods in men (N = 1679 men & 2035 women).

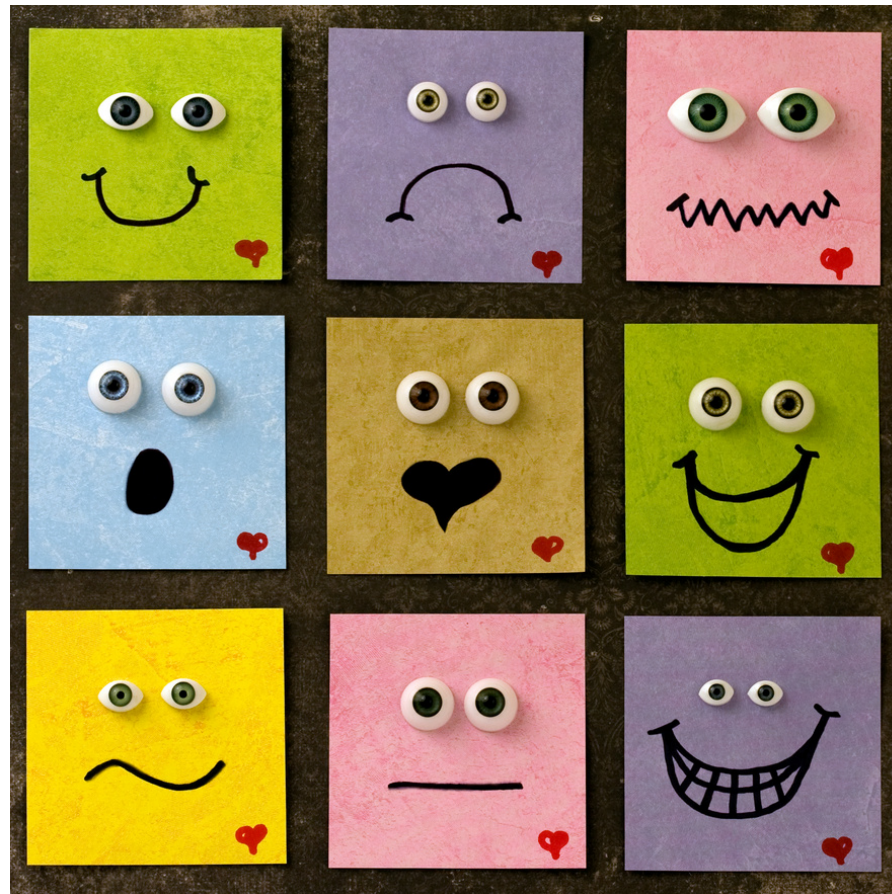
Macht, M. (2008). How emotions affect eating: A five-way model. *Appetite*, 50(1), 1–11.

Strien, T. van, Herman, C. P., Anschutz, D. J., Engels, R. C. M. E., & Weerth, C. de. (2012). Moderation of distress-induced eating by emotional eating scores. *Appetite*, 58(1), 277–284.

Konttinen, H., Männistö, S., Sarlio-Lähteenkorva, S., Silventoinen, K., & Haukkala, A. (2010). Emotional eating, depressive symptoms and self-reported food consumption. A population-based study. *Appetite*, 54(3), 473–479.



# Emotional points of view



- Emotions as mental states brought on by neurophysiological changes associated with thoughts, feelings, behavioural responses, and degree of pleasure or displeasure.
- No consensus on definition or number of emotions.
- Robert Plutchik's 8 primary emotions: fear, anger, sadness, disgust, surprise, anticipation, trust and joy.
- Ekman's 6 basic emotions: fear, anger, joy, sadness, disgust, and surprise.
- Biological aspects: norepinephrine (metabolic & behavioural adaptation), dopamine (anticipation, motivation, reward & subjective pleasure), etc.

- Wilson-Mendenhall, C. D., Barrett, L. F., and Barsalou, L. W. (2013). Neural evidence that human emotions share core affective properties. *Psychol. Sci.* 24, 947–956.
- Ekman, P., and Cordaro, D. (2011). What is meant by calling emotions basic. *Emot. Rev.* 3, 364–370. doi:
- Russell, J. A. (1980). A circumplex model of affect. *J. Pers. Soc. Psychol.* 39, 1161–1178.

# Effect of emotions on eating



Motivation to eat

Affective responses to foods (pleasure, displeasure)

Food choice

Chewing & eating speed

Amount ingested

Metabolism & digestion (fear & stress response)

# A mixed bag of tricks...

- Difficult to predict how emotions will impact eating.
- Research varies widely.
- High arousal may suppress eating in some
- Less known about:
  - effects of positive emotions
  - differences between negative emotions

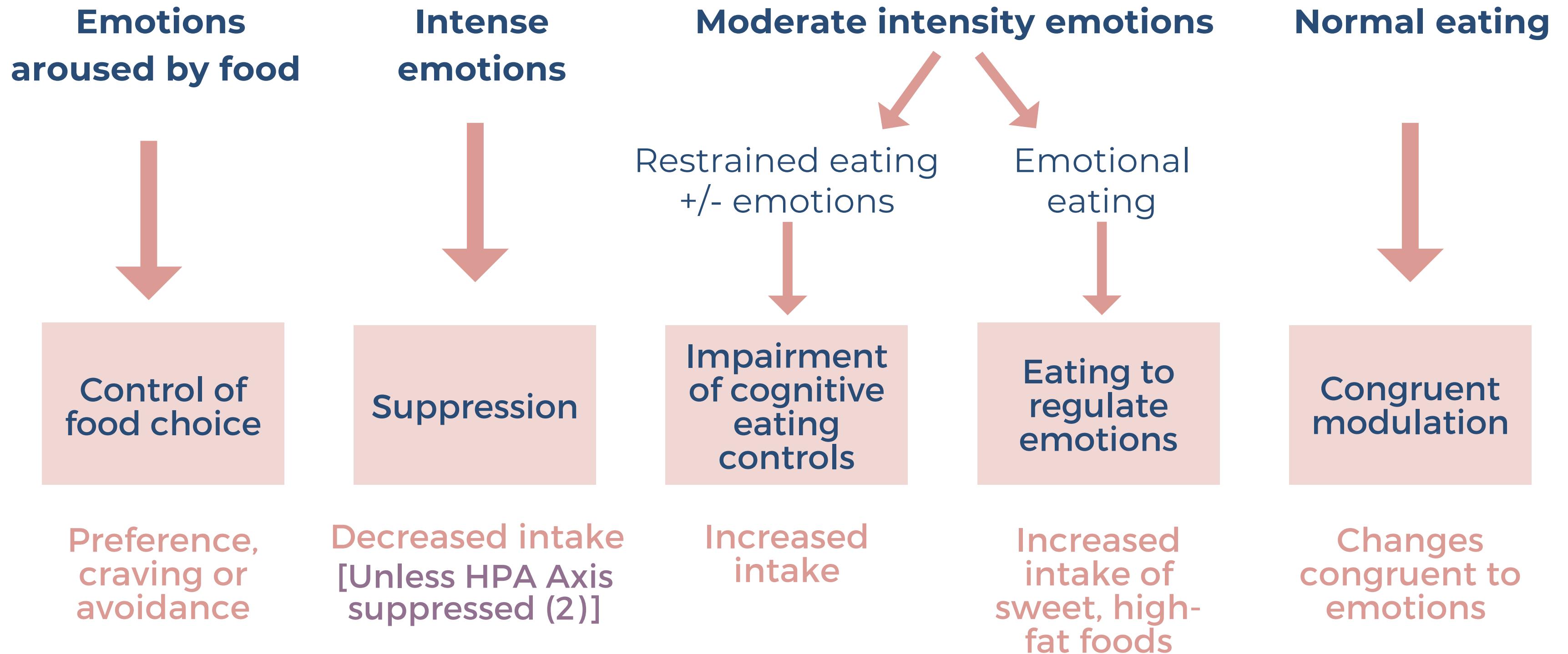


Emotional eating was originally defined as eating in response to negative emotions; a number of studies have shown that a positive mood can also trigger increased food intake.(1) Some study participants reported eating more frequently in response to positive vs negative emotions. (2)



1. Cardi, V., Leppanen, J., & Treasure, J. (2015). The effects of negative and positive mood induction on eating behaviour: A meta-analysis of laboratory studies in the healthy population and eating and weight disorders. *Neuroscience & Biobehavioral Reviews*, 57, 299–309
2. Evers, C., Adriaanse, M., de Ridder, T. D. T., et al. (2013). Good mood food. Positive emotion as a neglected trigger for food intake. *Appetite* 68: 1-7.

# The Five-way Model: effects of emotions on eating



1. Macht, M. (2008). How emotions affect eating: A five-way model. *Appetite*, 50(1), 1–11.

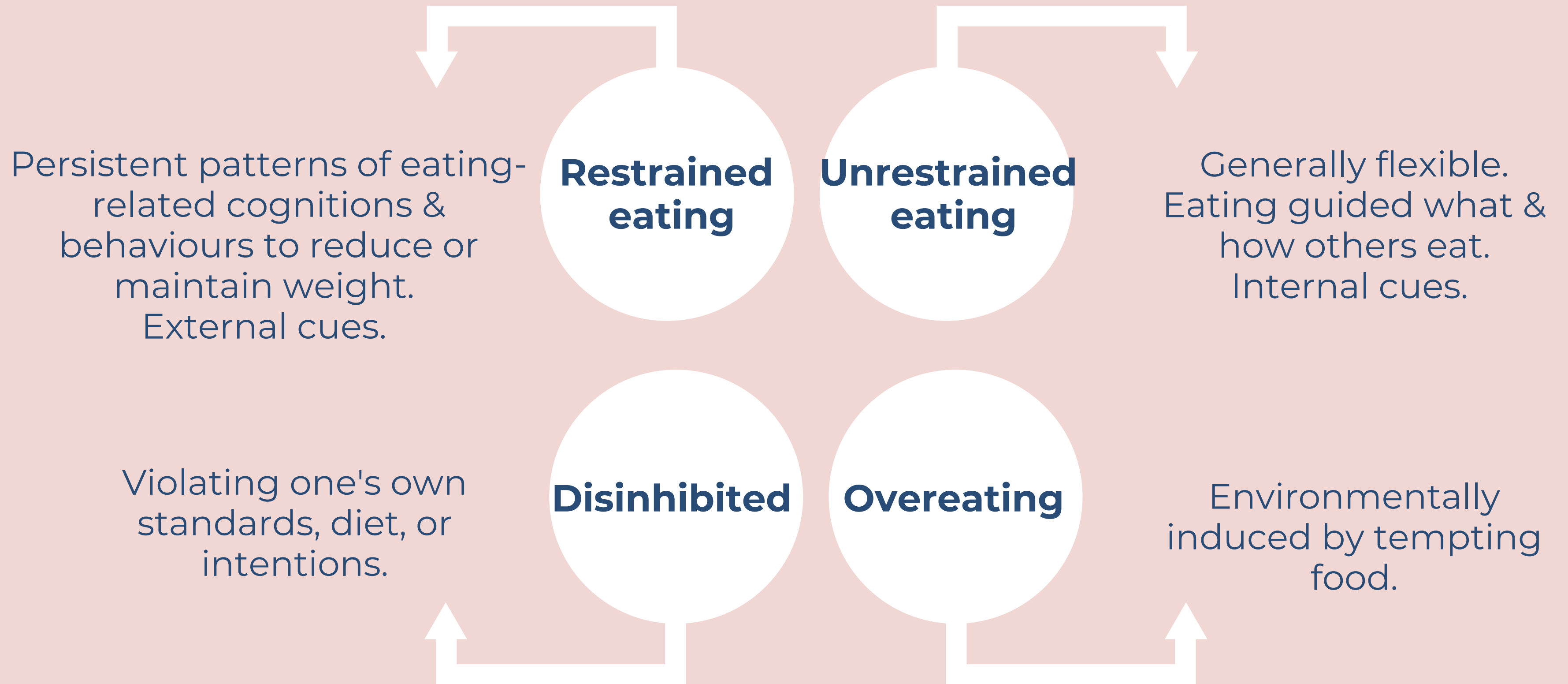
2. Péneau, S., Ménard, E., Méjean, C., Bellisle, F., & Hercberg, S. (2013). Sex and dieting modify the association between emotional eating and weight status. *The American Journal of Clinical Nutrition*, 97(6), 1307–1313.

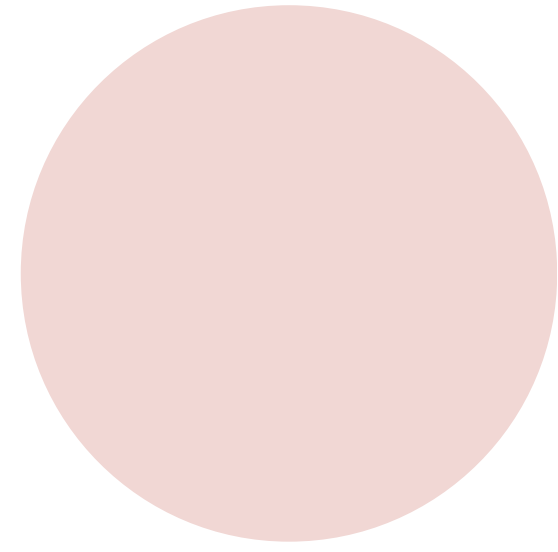


Emotional eaters observed to be likely to overeat in response to emotions rather than respond to internal satiety and satiation cues.

Seems more frequent in those with BMI >25.

Péneau, S., Ménard, E., Méjean, C., Bellisle, F., & Hercberg, S. (2013). Sex and dieting modify the association between emotional eating and weight status 1, 2, 3. *The American Journal of Clinical Nutrition*, 97(6), 1307–1313. doi: 10.3945/ajcn.112.054916






Overeating is relative.

# Emotional eating & highly palatable foods

- Emotional eaters seem to consume more highly palatable foods in response to emotional stress than non-emotional eaters
- May be eating in attempt to emotionally regulate.
- May be means of coping with negative emotions.
- May increase tendency to binge in bulimia nervosa and binge eating disorder





Challenges &  
controversies  
surrounding  
emotional eating

# Emotional eating research is complex

## Issues with assessment tools

- May not measure what they intend to
- Bias in questioning
- Some don't specify time period for eating behaviour
- Tools vary widely
- Controversy with some tools (DEBQ)
- Self-reported food intake
  - Bias in recall, may under-report eating, under or overestimate emotions
  - Vague serving sizes, can be 500-1000 calorie difference in intake

## Design limitations & issues

- Limited sample sizes (\$\$\$)
- Bogus taste tests to measure intake
- Film clips, memory recall, mood-inducing music, providing false feedback
- Using the TSST testing method
- It's hard to induce real-life emotions in a lab.
- Screening for ED, DEB, mood disorders, depression, anxiety, dieting history, restrained eating.
- Analysis - differences in how subgroups are split. Median split vs quartile split.



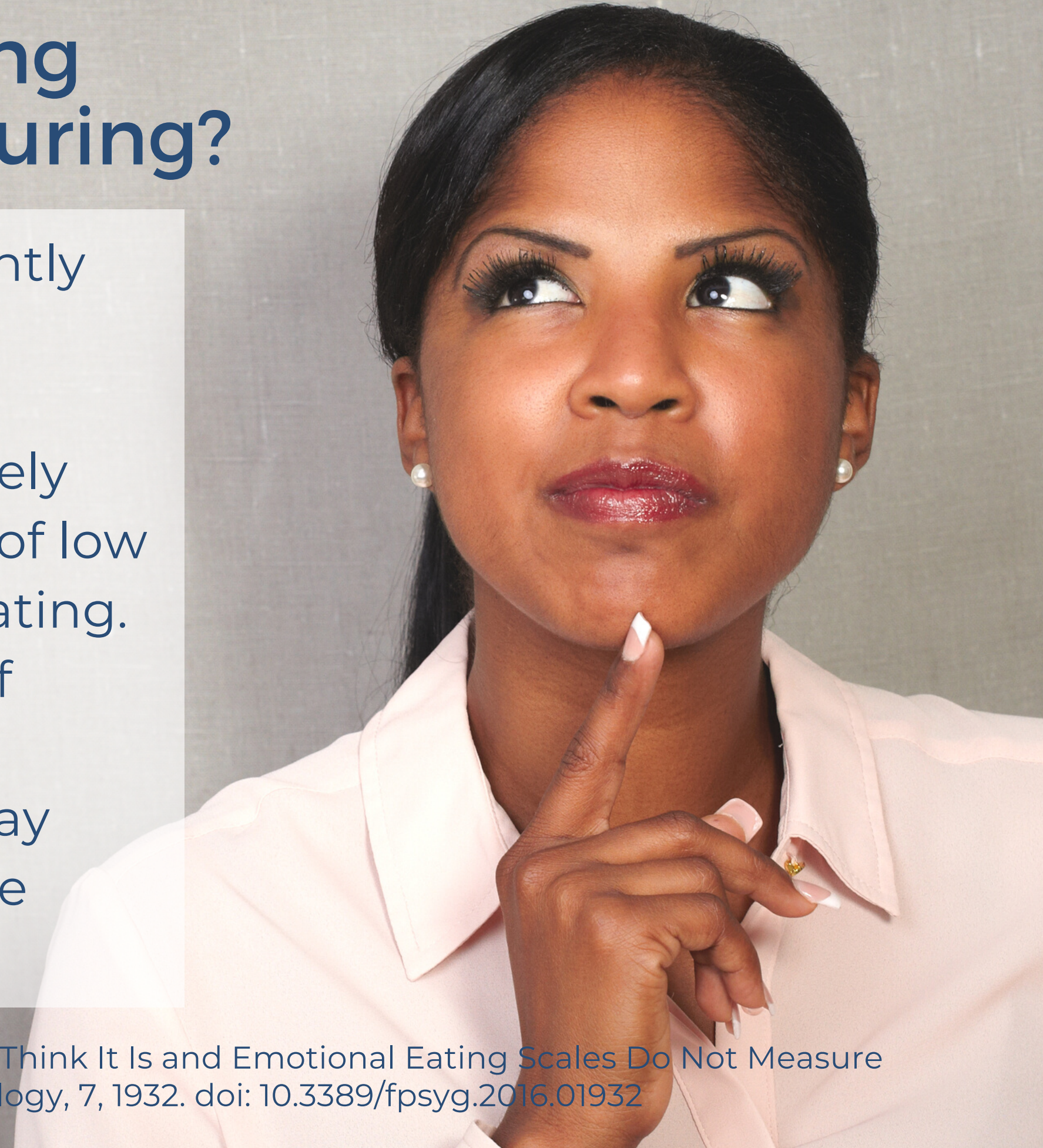


Review:  
emotional eating  
1986-2016

- 18+ Adults with self-reported EE in lab & daily life
- 25 Studies that met criteria  
19 experimental; 6 daily life
- 5 Experimental studies included negative affect; 3 of them showed no evidence for increased food intake in negative mood in EE.
- 1 Study found evidence that positive mood can increase food intake in EEs.

# Are questionnaires measuring what we think they're measuring?

- Higher EE scores didn't consistently predict increased response to stress or negative emotions (in lab or daily life).
- Self-reported EE may be more adequately interpreted as a more general concept of low self-control and concerns about over-eating.
- EE may be a retrospective attribution of overeating to negative affect.
- When under stress emotional eaters may overestimate their intake, despite intake being normal.



# What are they measuring?



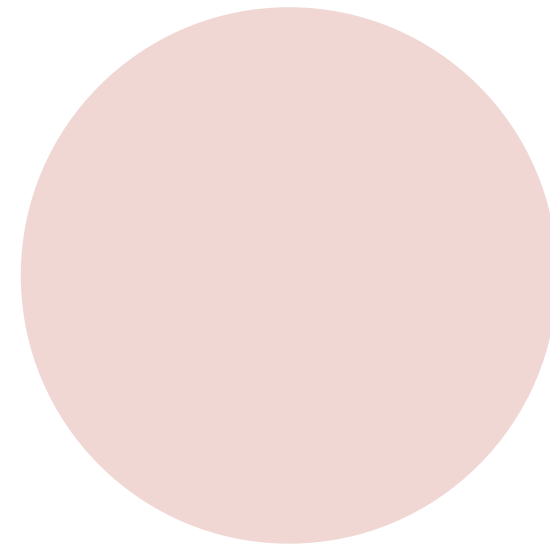
## NEGATIVE

- Dutch Eating Behavior Questionnaire (DEBQ)
- Emotional Eating Scale (EES)\*
- Three Factor Eating Questionnaire - EE subscale (TFEQ-R18)



## NEGATIVE & POSITIVE

- Emotional Eating Scale (EES II)
- Emotional Appetite Questionnaire (EMAQ)
- Emotional Overeating Questionnaire (EOQ)



Before we can interpret research on emotional eating, we need to understand the true meaning of a high self-reported emotional eating score.

# If we're not measuring emotional eating, then what are we measuring?

## Uncontrolled eating

Common factor: uncontrolled eating (2).

- Power of food
- Eating impulsivity
- Emotional eating
- Disinhibition
- Binge eating

Thought to reflect low perceived self-control and high motivation to eat. N = 1196 women; 456 Canadian

## Concerned eating

Concerned eaters (3 & 4)

EE scores predictive of:

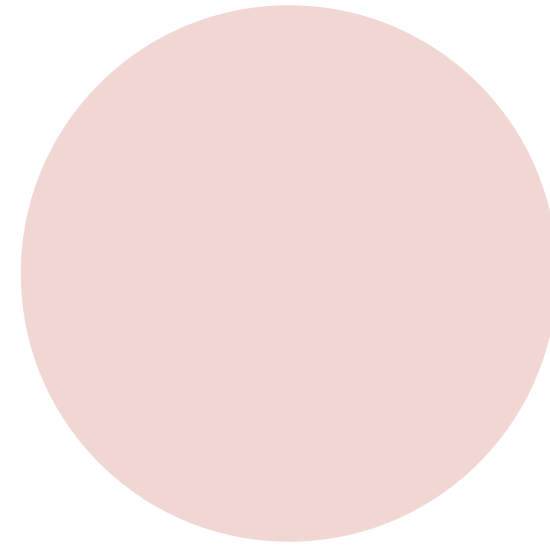
- Higher degree worrying about own eating behaviour
- Higher level monitoring of eating
- Decreased perception of having control over eating
- Higher extrinsic motivation to eat healthy

1. Bongers, P., & Jansen, A. (2016). Emotional Eating Is Not What You Think It Is and Emotional Eating Scales Do Not Measure What You Think They Measure. *Frontiers in Psychology*, 7, 1932. doi: 10.3389/fpsyg.2016.01932
2. Vainik, U., Neseliler, S., Konstabel, K., Fellows, L. K., & Dagher, A. (2015). Eating traits questionnaires as a continuum of a single concept. *Uncontrolled eating. Appetite*, 90, 229–239. doi: 10.1016/j.appet.2015.03.004
3. Adriaanse, M. A., Ridder, D. T. D. de, & Evers, C. (2011). Emotional eating: Eating when emotional or emotional about eating? *Psychology & Health*, 26(1), 23–39. doi: 10.1080/08870440903207627
4. Jansen, A., Nederkoorn, C., Roefs, A., Bongers, P., Teugels, T., & Havermans, R. (2011). The proof of the pudding is in the eating: Is the DEBQ - external eating scale a valid measure of external eating? *International Journal of Eating Disorders*, 44(2), 164–168. doi: 10.1002/eat.20799

# Attributing overeating to negative affect

- High emotional eating scores reflect a tendency to attribute past overeating to negative affect
- Folks can't always explain their overeating behaviour, and may make up a reason that makes sense to them\*
- Emotional eaters appeared to use negative mood as a reason for their overconsumption





Emotional eating questionnaires may be more likely to measure the way individuals think about the relation between negative mood and eating, as opposed to actual food intake.



## Meta-analysis: effect of emotions on eating



56

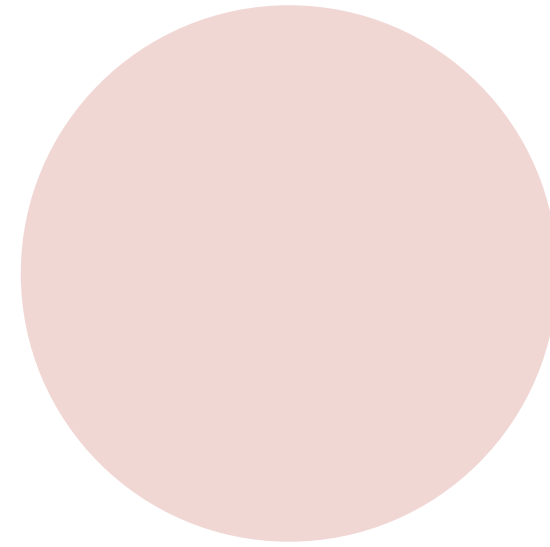
Experimental  
studies



3670

Adults  
BMI <24.9;  
25-29.9; 30+

- 
- Restrained eaters showed increased eating in response to negative emotions.
  - Negative emotions didn't affect eating in BMI 25-29.9 or 30+, those with ED or in self-assessed EE.
  - Positive emotion resulted in increased eating across groups.



“The assumption that emotional eating questionnaires are adequate measures of eating behaviour in response to negative emotions is no longer tenable, as shown by the abundance of studies demonstrating no increased food intake in negative moods in self-reported emotional eaters.”

Bongers, P., & Jansen, A. (2016). Emotional Eating Is Not What You Think It Is and Emotional Eating Scales Do Not Measure What You Think They Measure. *Frontiers in Psychology*, 7, 1932. doi: 10.3389/fpsyg.2016.01932

How does emotional eating impact patient health?

# EMOTIONAL EATING ASSOCIATIONS

Weight gain; Interference with weight loss (3); tendency to gain more weight over time (4)

Critical risk factor for recurrent weight gain (1)

Prolonged stress (1)

Depression; increase in symptoms (1); seems to be mediator between depression & elevated BMI (6)

Metabolic disorders (2)

Overeating (1)

Guilt after eating (1)

Binge eating (3)

Eating energy dense, poor in nutrients, & tasty foods (2) more frequently (4)

BMI >25; BMI >30 (greater in women) (1)



Eating disorders (2)

Affects mental health (1)

Anxiety (1)

50,000+ subjects, 12 studies, 2013-2023 (1)

1. Dakanalis, A., Mentzelou, M., Papadopoulou, S. K., Papandreou, D., Spanoudaki, M., Vasios, G. K., ... Giaginis, C. (2023). The Association of Emotional Eating with Overweight/Obesity, Depression, Anxiety/Stress, and Dietary Patterns: A Review of the Current Clinical Evidence. *Nutrients*, 15(5), 1173.
2. Godet, A., Fortier, A., Bannier, E., Coquery, N., & Val-Laillet, D. (2022). Interactions between emotions and eating behaviors: Main issues, neuroimaging contributions, and innovative preventive or corrective strategies. *Reviews in Endocrine and Metabolic Disorders*, 23(4), 807–831.
3. Bongers, P., & Jansen, A. (2016). Emotional Eating Is Not What You Think It Is and Emotional Eating Scales Do Not Measure What You Think They Measure. *Frontiers in Psychology*, 7, 1932. doi: 10.3389/fpsyg.2016.01932
4. Konttinen, H. (2020). Emotional eating and obesity in adults: the role of depression, sleep and genes. *Proceedings of the Nutrition Society*, 79(3), 283–289.
5. Konttinen, H., Strien, T. van, Männistö, S., Jousilahti, P., & Haukkala, A. (2019). Depression, emotional eating and long-term weight changes: a population-based prospective study. *International Journal of Behavioral Nutrition and Physical Activity*, 16(1), 28.
6. Konttinen, H., Strien, T. van, Männistö, S., Jousilahti, P., & Haukkala, A. (2019). Depression, emotional eating and long-term weight changes: a population-based prospective study. *International Journal of Behavioral Nutrition and Physical Activity*, 16(1), 28.

# Subtypes of emotional eating in women

605 WOMEN, MEAN AGE 29.8

5%

**BMI >30**  
**high levels of EE**  
(+ & - emotions)

Highest emotional  
regulation difficulties  
& eating pathology



9%

**BMI 25-29.9**  
**without EE**

Moderate eating  
pathology & low  
emotional regulation  
difficulties\*



63%

**BMI 18.5-24.9**  
**without EE**  
(Some with + EE)

Moderate emotional  
regulation difficulties &  
low eating pathology

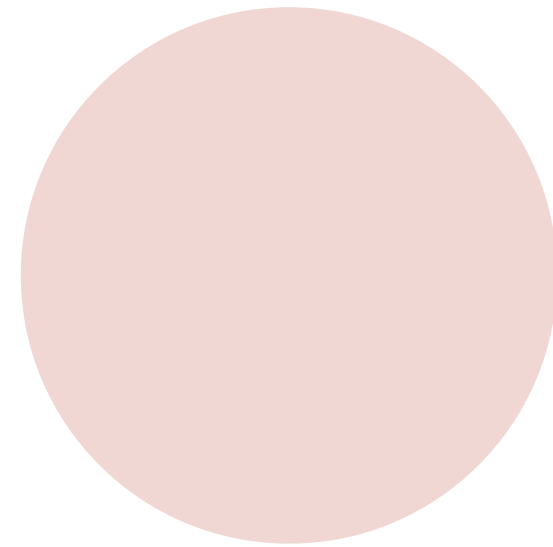


23%

**BMI 18.5-24.9**  
**low levels of EE**  
(+ & - emotions)

Highest emotional  
regulation difficulties  
& eating pathology





We need to address eating behaviour and emotional regulation together.




# Does emotional eating impact fruit & veggie intake?

Study in 3714 Finnish adults

Doesn't appear to impact fruit & veggie intake.

Depressive symptoms found to be related to lower intake of fruits & veggies.

Common triggers  
and emotions  
associated with  
emotional eating



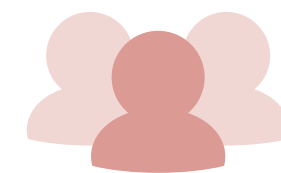
Systematic  
review:  
associations  
between  
emotions &  
eating  
behaviour



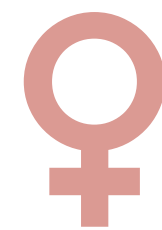
29  
Articles  
2004-2015



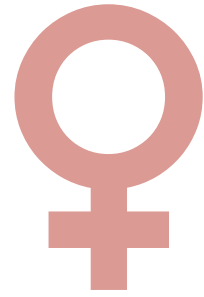
Binge eating,  
Emotional eating  
Amount food  
consumed



BMI  
Mean 19.73  
Mean 28.4



50-100%  
Female



Primary triggers stress, guilt.

- More EE in premenopausal with high chronic stress compared to low chronic stress (quartiles).
- Those in positive emotion conditions consumed more following emotional induction compared to those in negative or neutral conditions.
- More likely to eat in response to depression & anxiety than males.



Primary triggers:  
boredom, anxiety.

# Food choices

Emotional eaters reported more intense chocolate cravings, higher chocolate consumption, and less chocolate related guilt than restrained eaters. (3)



High restraint group (vs low restraint) ate more high fat foods regardless of stress condition.(2)



When motivated to choose foods to regulate negative affect, association with less healthy dietary pattern c/t being motivated to choose food for weight loss.



Highly palatable foods preferred during stressful times. Chocolate, chips, ice cream. (4)



- 1.Devonport, T.J., Nicholls, W., & Fullerton, C. (2019). A systematic review of the association between emotions and eating behaviour in normal and overweight adult populations. *Journal of Health Psychology*, 24(1), 3–24. doi:10.1177/1359105317697813
- 2.Shapiro, J.R., & Anderson, D.A. (2005). Counterregulatory eating behavior in multiple item test meals. *Eating Behaviours* 6(2): 169-178.
- 3.Macht M. & Mueller, J. (2007). Interactive effects of emotional and restrained eating on responses to chocolate and affect. *Journal of Nervous and Mental Disease* 195(12): 1024-1026.
- 4.Costarelli, V. & Pasta A. (2012). Academic examination stress increases disordered eating symptomatology in female university students. *Eating and Weight Disorders* 17(3): 164-169.

# COMMON TRIGGERS ASSOCIATED WITH EMOTIONAL EATING

Psychological distress (2)

Positive emotions & mood (1, 4, 5)

Anxiety (1)

Anger & aggression

Guilt after eating (1)

Chronic stress

Depression & sadness (2, 6, 7, 8)

Negative emotions (3)

Shame (7)

Boredom



1. Bongers, P., & Jansen, A. (2016). Emotional Eating Is Not What You Think It Is and Emotional Eating Scales Do Not Measure What You Think They Measure. *Frontiers in Psychology*, 7, 1932.
2. Dakanal, A., Mentzelou, M., Papadopoulou, S. K., Papandreou, D., Spanoudaki, M., Vasios, G. K., ... Giaginis, C. (2023). The Association of Emotional Eating with Overweight/Obesity, Depression, Anxiety/Stress, and Dietary Patterns: A Review of the Current Clinical Evidence. *Nutrients*, 15(5), 1173.
3. Péneau, S., Ménard, E., Méjean, C., Bellisle, F., & Hercberg, S. (2013). Sex and dieting modify the association between emotional eating and weight status. *The American Journal of Clinical Nutrition*, 97(6), 1307–1313.
4. Devonport, T. J., Nicholls, W., & Fullerton, C. (2019). A systematic review of the association between emotions and eating behaviour in normal and overweight adult populations. *Journal of Health Psychology*, 24(1), 3–24.
5. Evers, C., Adriaanse, M., de Ridder, T. D., et al. (2013). Good mood food. Positive emotion as a neglected trigger for food intake. *Appetite* 68: 1-7.
6. van Strien, T., Winkens, L., Toft, M. B., et al. (2016). The mediation effect of emotional eating between depression and body mass index in the two European countries Denmark and Spain. *Appetite* 105, 500-508.
7. Konttinen, H. (2020). Emotional eating and obesity in adults: the role of depression, sleep and genes. *Proceedings of the Nutrition Society*, 79(3), 283–289.
8. Paans, N. P. G., Bot, M., van Strien, T., et al. (2018). Eating styles in major depressive disorder: results from a large-scale study. *J. Psychiatr Res* 97, 38-46.

# Anger & disgust

Anger is important antecedent to binge eating.

Disgust may maintain pathological eating patterns and impact attempts to normalize eating.



How do we think  
emotions may be  
driving eating  
behaviour?

# Reward-driven eating

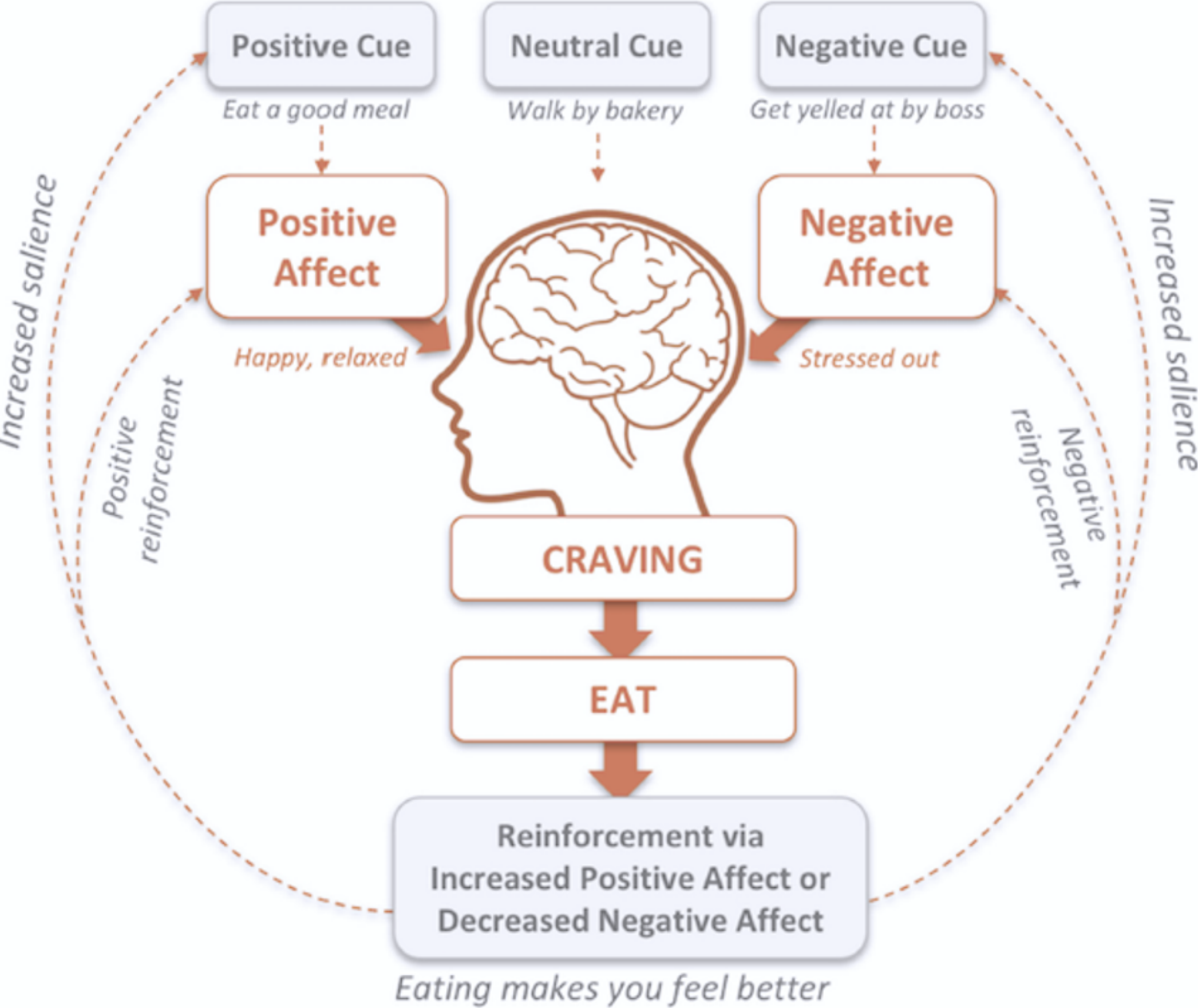


FIGURE 1 | The habit loop. Development of habitual reward-based eating via positive and negative reinforcement.

Brewer. J.A. et al (2018).

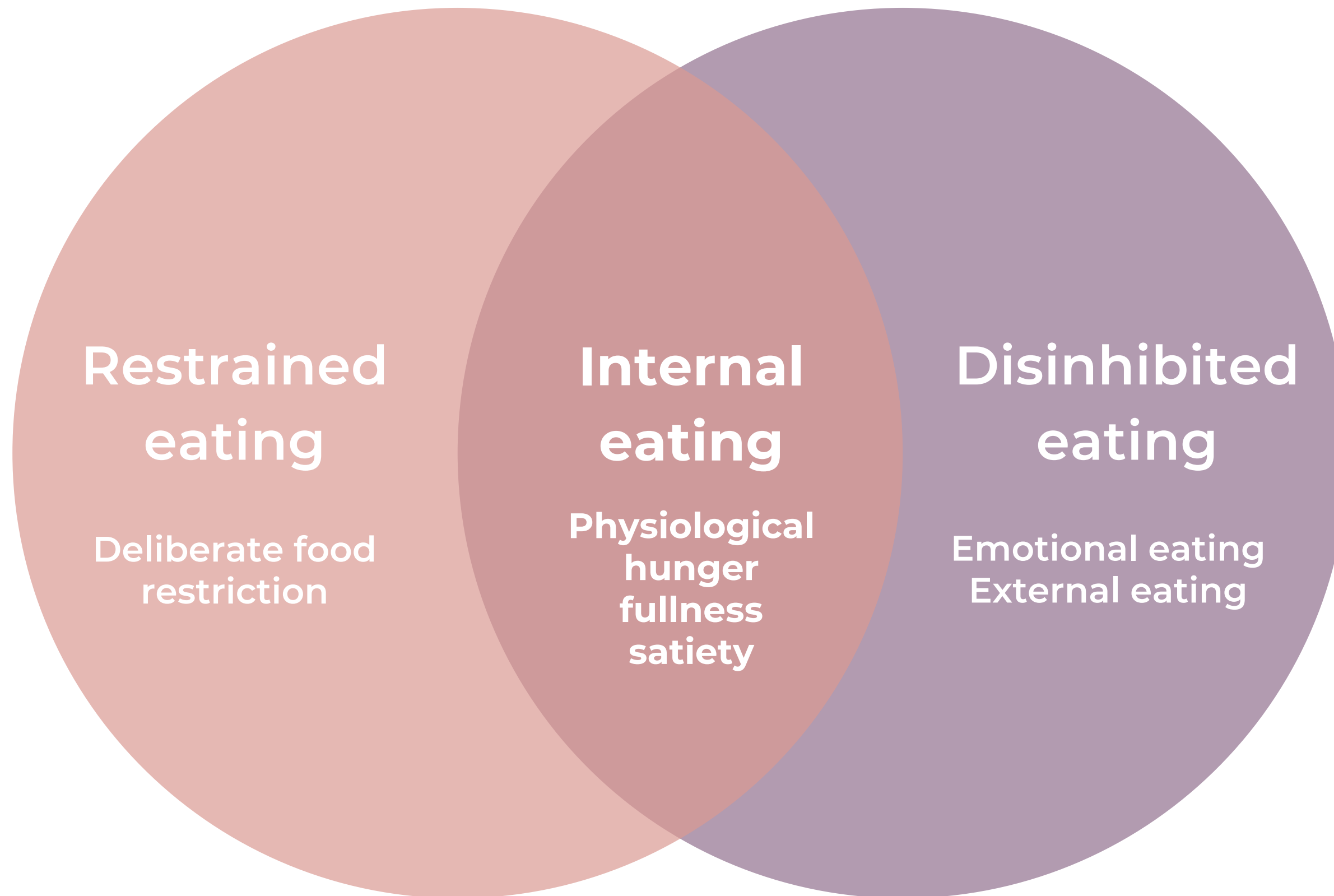
Brewer, J. A., Ruf, A., Beccia, A. L., Essien, G. I., Finn, L. M., van Lutterveld, R., & Mason, A. E. (2018). Can Mindfulness Address Maladaptive Eating Behaviors? Why Traditional Diet Plans Fail and How New Mechanistic Insights May Lead to Novel Interventions. *Frontiers in Psychology*, 9, 1418.

Fay, S. H., & Finlayson, G. (2011). Negative affect-induced food intake in non-dieting women is reward driven and associated with restrained–disinhibited eating subtype. *Appetite*, 56(3), 682–688.

Lemmens, S. G., Rutters, F., Born, J. M., & Westerterp-Plantenga, M. S. (2011). Stress augments food ‘wanting’ and energy intake in visceral overweight subjects in the absence of hunger. *Physiology & Behavior*, 103(2), 157–163.



"The more we engage in these habit loops by experiencing stress (trigger), eating palatable foods or restricting our eating (behaviour), and receiving temporary relief (feeling better, being distracted from negative affect, moving towards a goal, avoiding feelings of guilt for having broken one's dieting "rules" etc.), the further obscured our ability to recognize the difference between homeostatic and non-homeostatic hunger becomes."



**Restrained  
eating**

Deliberate food  
restriction

**Internal  
eating**

Physiological  
hunger  
fullness  
satiety

**Disinhibited  
eating**

Emotional eating  
External eating

Brewer, J. A., Ruf, A., Beccia, A. L., Essien, G. I., Finn, L. M., van Lutterveld, R., & Mason, A. E. (2018). Can Mindfulness Address Maladaptive Eating Behaviors? Why Traditional Diet Plans Fail and How New Mechanistic Insights May Lead to Novel Interventions. *Frontiers in Psychology, 9*, 1418.

Burger, K. S., Sanders, A. J., & Gilbert, J. R. (2016). Hedonic Hunger Is Related to Increased Neural and Perceptual Responses to Cues of Palatable Food and Motivation to Consume: Evidence from 3 Independent Investigations. *The Journal of Nutrition, 146*(9), 1807–1812.

These states seem to promote a vulnerable state for self-regulatory failure.

**H** HUNGER

**A** ANGER

**L** LONELINESS

**T** TIREDNESS

Do we need to worry  
about emotional  
eating developing  
into an eating  
disorder?

# Exploring Disordered Eating In Naturopathic Practice

Dr. Sylvi Martin BScN RN ND

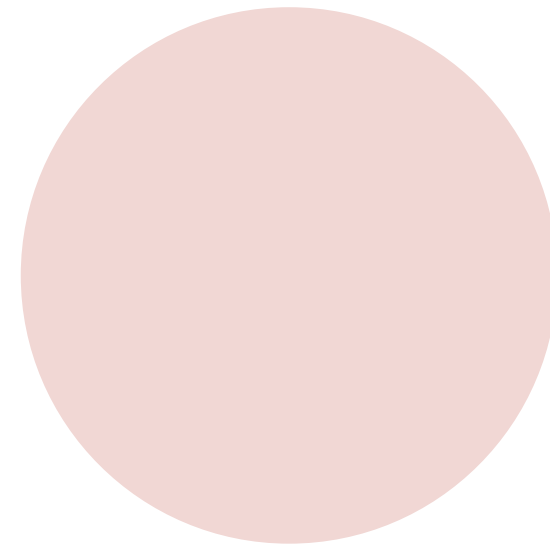


# Eating behaviour as a spectrum

MALADAPTIVE BEHAVIOUR

ADAPTIVE BEHAVIOUR

Eating Disorder	Disordered Eating	Dieting	Mechanical Eating	Normalized Eating	Intuitive Eating
DSM criteria	Frequent bingeing & fasting	Hypocaloric diets	Refeeding	Balanced eating: appropriate intake for needs	Eating that is attuned to hunger, fullness & satiety signals
Anorexia		Fasting	Eating rehabilitation		
Bulimia	Severe dieting	Food restriction		Occasional overeating or skipping meals	Internal eating
Binge Eating Disorder	Orthorexia nervosa				
ARFID				Flexible restraint	

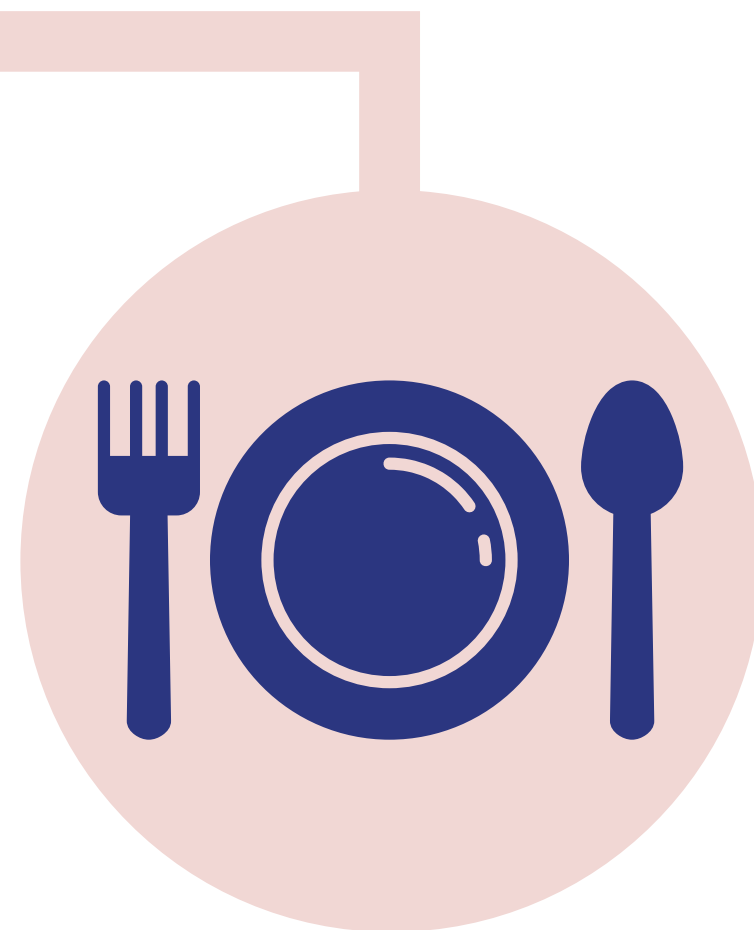


Emotional eating is not an eating disorder.

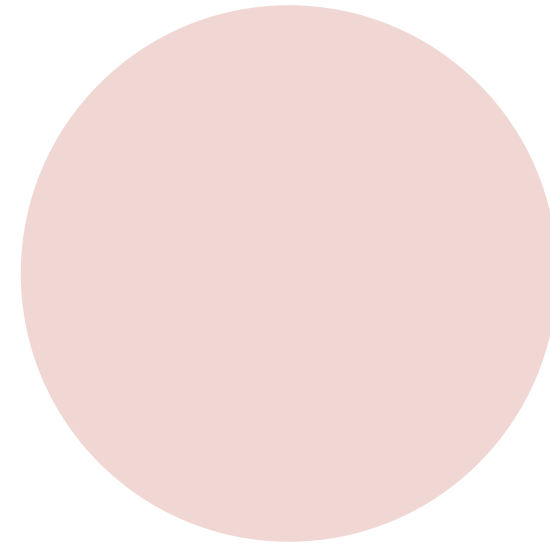
Dakanalis, A., Mentzelou, M., Papadopoulou, S. K., Papandreou, D., Spanoudaki, M., Vasios, G. K., ... Giaginis, C. (2023). The Association of Emotional Eating with Overweight/Obesity, Depression, Anxiety/Stress, and Dietary Patterns: A Review of the Current Clinical Evidence. *Nutrients*, 15(5), 1173. doi:10.3390/nu15051173

# Key features of Eating Disorders

Disturbance of eating or eating-related behaviour that results in the altered consumption or absorption of food



Significant impairment of physical health or psychosocial functioning.



The underlying psychopathology of disordered eating behaviour is the over-evaluation of shape and weight, and their control.

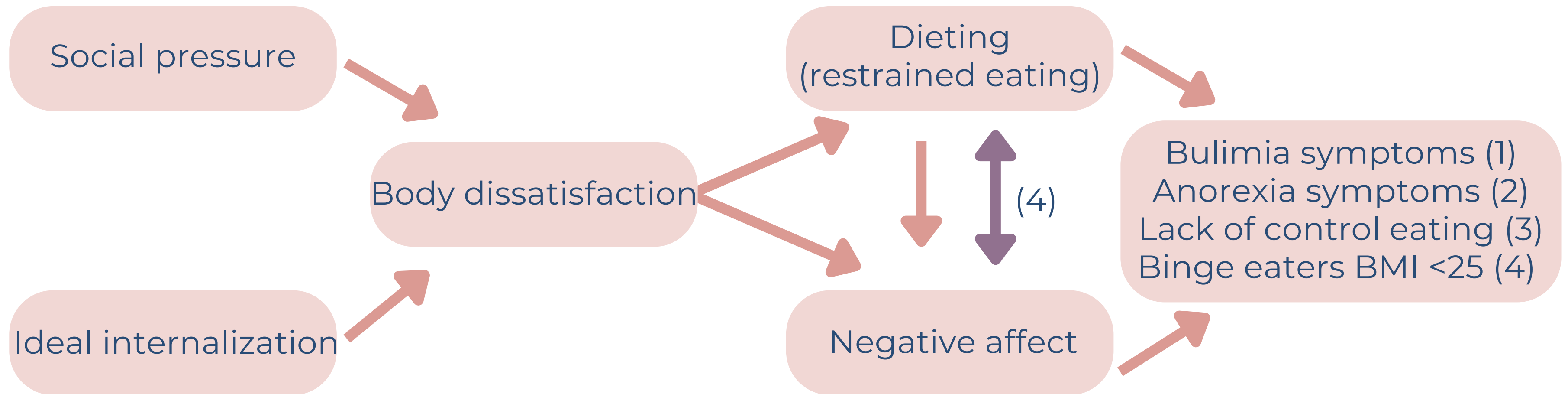
# Key features of Eating Disorders

	Anorexia nervosa	Bulimia nervosa	Binge eating disorder	Avoidant/restrictive food intake disorder
Eating	Severe restriction	Irregular, skipping meals common as well as restriction	Irregular but no extreme restriction	Severe restriction of all or selected foods
Weight	* Underweight *	Normal or above normal	Normal or above normal	Underweight and/or with nutrition deficiency
Body image	Overvaluation with or without 'fear of fatness'	Overvaluation	Overvaluation but not mandatory	No overvaluation
Binge eating	May occur	Regular and with compensation	Regular without compensation	NA
Purging, fasting, driven exercise weight control behaviour(s)	One or more is present	Regular as compensatory behaviours	Not regular	None

**\* Atypical anorexia may present in those in BMI >25**

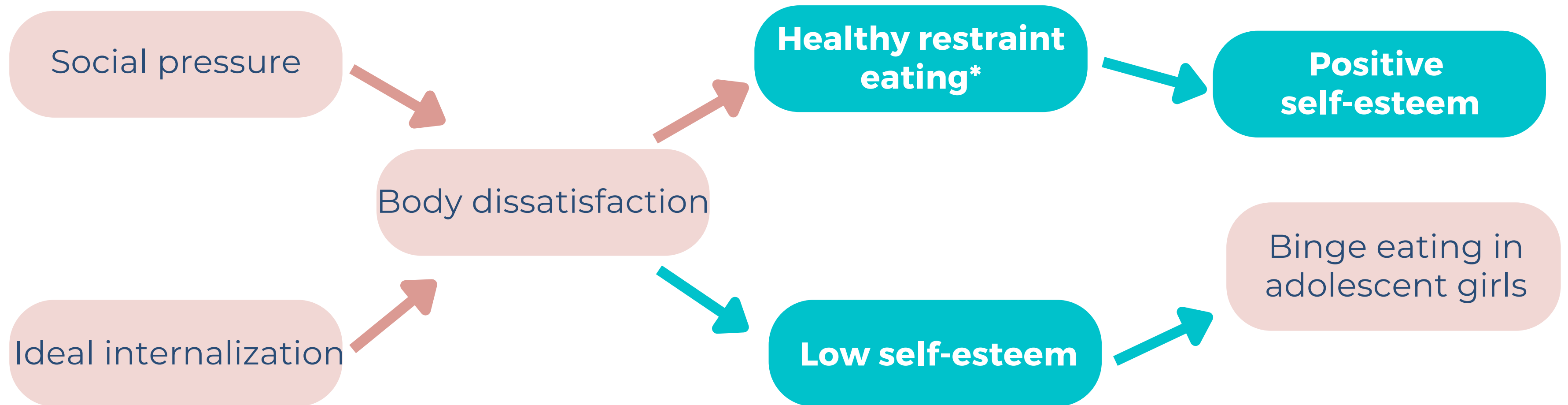
# The Dual Pathway Model

## THEORETICAL MODEL OF EATING DISORDER DEVELOPMENT



1. Stice, E. (2001). A prospective test of the dual-pathway model of bulimic pathology: Mediating effects of dieting and negative affect. *Journal of Abnormal Psychology*, 110(1), 124–135. doi: 10.1037//0021-843x.110.1.124
2. Urvelyte, E. & Perminas, A. (2015). The dual pathway model of bulimia: Replication and extension with anorexia. *Procedia Social and Behavioral Sciences*; 205(178-183).
3. Dakanalis, A., Timko, C. A., Carrà, G., Clerici, M., Zanetti, M. A., Riva, G., & Caccialanza, R. (2014). Testing the original and the extended dual-pathway model of lack of control over eating in adolescent girls. A two-year longitudinal study. *Appetite*, 82, 180–193. doi: 10.1016/j.appet.2014.07.022
4. Welsh, D. M., & King, R.M. (2016). Applicability of the dual pathway model in normal and overweight binge eaters. *Body Image*, 18, 162–167. doi: 10.1016/j.bodyim.2016.06.007

# The Dual Pathway Model: binge eating in adolescent girls



Limits: self report; didn't exclude binge eating at onset; girls only; single-item assessment of binge eating - may compromise validity of outcome measure



# Spotting folks at high risk of eating disorders

- Seeking to lose weight, dieting
- Limiting intake, calorie counting, eliminating foods.
- Restricting foods due to intolerances
- Concurrent conditions that cause weight loss or gain, focus on body, weight, shape and eating (diabetes, PCOS)
- Mental health: anxiety, depression
- Low self-esteem
- Substance misuse
- Trauma history
- Experience(d) food insecurity
- Perfectionist or compulsive personality traits
- Neurodiverse (sensory related)



# LGBTQ2S+

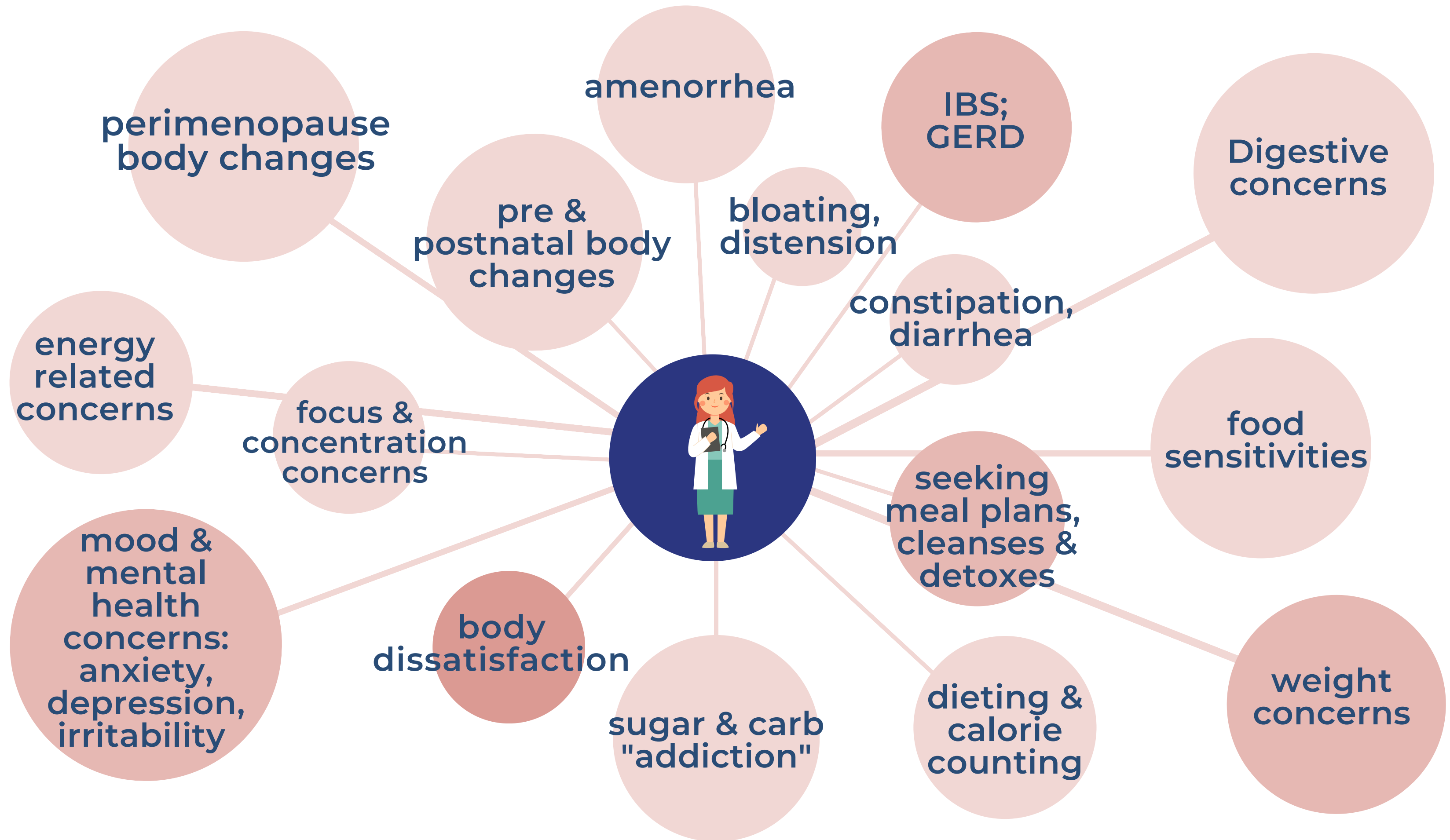
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- Intersecting forms of oppression
- Underrepresented in research



# Psychological characteristics associated with emotional eating & eating disorders

- Anxiety
- Compulsivity
- Conflict avoidance
- Depression
- Difficulty expressing feelings
- Exaggerated sense of guilt
- Fear or conflicts around sexuality
- Feelings of alienation or loneliness
- Intolerance for frustration
- Poor impulse control
- Self-consciousness
- Sense of ineffectiveness



# Screen for...

## Disordered eating attitudes:

- Negative attitudes about weight and/or shape
- Body dissatisfaction
- Anxiety about shape and/or weight

## Disordered eating behaviours:

- Attempts to influence weight or shape
- Attempts to counteract effects of eating
- Fasting, skipping meals
- Appetite suppressants
- Self-induced vomiting
- Laxative or diuretic use

Hayes, J. F., Fitzsimmons-Craft, E. E., Karam, A. M., Jakubiak, J., Brown, M. L., & Wilfley, D. E. (2018). Disordered Eating Attitudes and Behaviors in Youth with Overweight and Obesity: Implications for Treatment. *Current Obesity Reports*, 7(3), 235–246. doi: 10.1007/s13679-018-0316-9





We need to very carefully consider the use of restrictive nutritional interventions with our patients.

# What's common in our profession?

- Intermittent fasting
- Ketogenic diets
- Low-carb diets
- Paleo diets
- Cleanse & detoxes
- Elimination diet

- Wheat or gluten-free diets
- Dairy-free diets
- Restricting foods: sensitivities
- Low-FODMAP diets
- Elemental diets

# What diet promoters don't reveal

DIETING = RESTRAINED EATING



Preoccupation with food



Body dissatisfaction



Food cravings



Reduced self-esteem,  
guilt, shame



Takes focus off other health  
goals



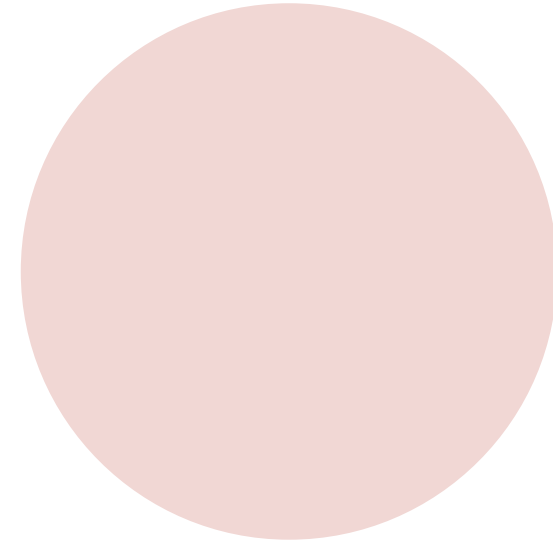
Feeling like failure,  
learned helplessness



Increased risk of disordered  
eating and binge eating



Body shame, weight  
stigmatization



Encouraging restrained eating may increase the risk of emotional eating and/or disordered eating behaviour.

When an eating disorder is suspected refer promptly!



01

Screen. Build rapport.  
Gather info.  
Acknowledge & validate.  
Refer to eating disorder specialist.

02

Collaborate with patient in goal setting.

03

Identify triggers, establish regular eating, reverse restriction, behaviour change.

04

Manage risk & concurrent concerns, know when hospital is necessary

Hurst, K., Heruc, G., Thornton, C., Freeman, J., Fursland, A., Knight, R., Roberts, M., Shelton, B., Wallis, A., & Wade, T. (2020). ANZAED practice and training standards for mental health professionals providing eating disorder treatment. *Journal of Eating Disorders*, 8(1), 58.

A person wearing a white lab coat is holding a small, white, rectangular card or piece of paper. The background is a soft-focus blue and white, suggesting a clinical or hospital setting.

Prompt referral  
is key!

## National Eating Disorder Information Centre

- **NEDIC.CA**
- Call, email, live chat
- Get help: find a provider

## Types of providers

- Family physician (Dx + Rx)
- Psychiatrist (Dx + Rx)
- Psychologists (Dx)
- Nurse practitioners (Dx+Rx)
- Psychotherapists (Tx)
- Registered Nurse Psychotherapists (Ax + Tx)
- Registered dietitian (Tx)

# Mindful eating





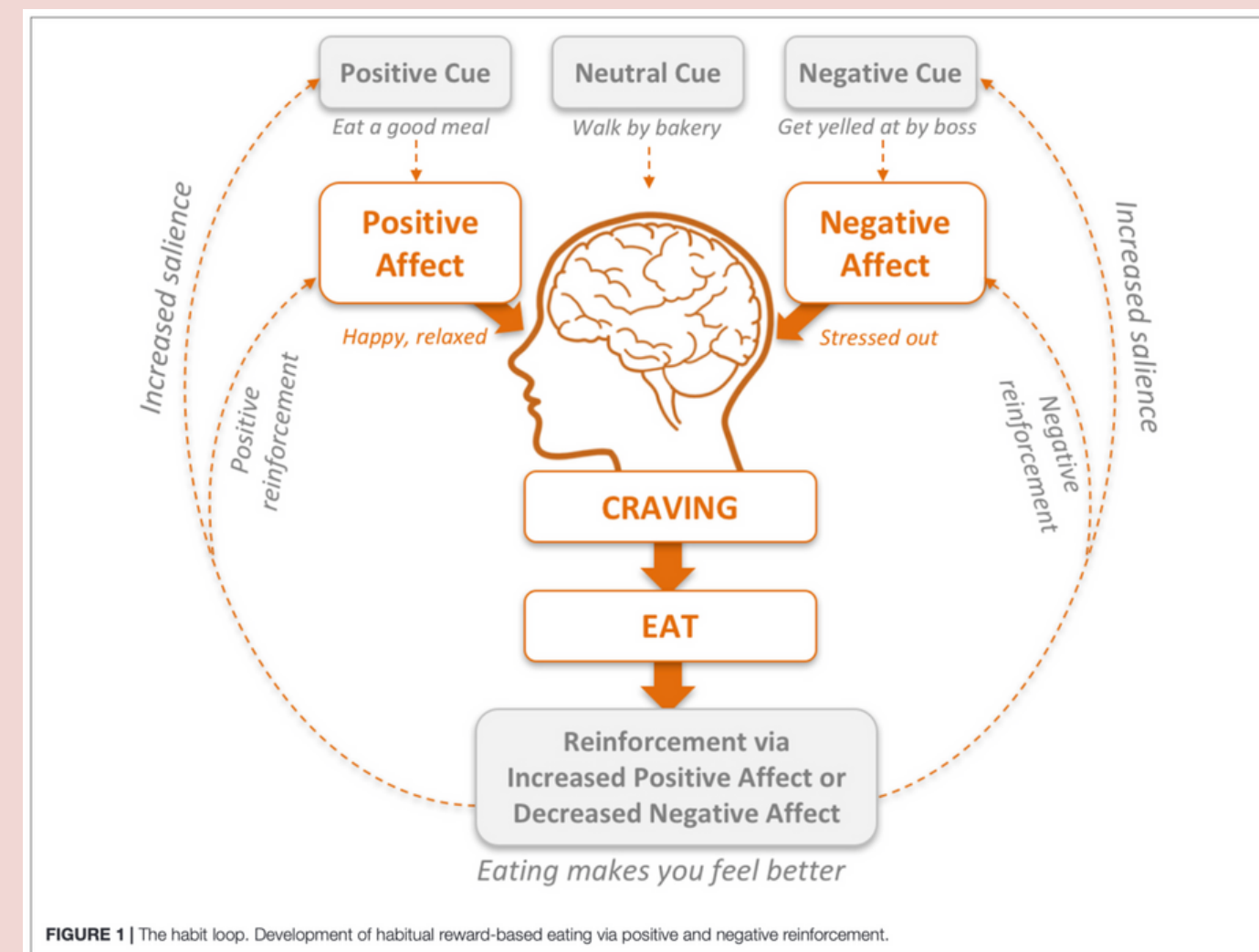
“

**“Mindfulness...  
moment to moment non-judgmental  
awareness cultivated by paying attention”**

JON KABAT-ZINN

# Mindfulness training directly targets reward-based habit loops

Non-judgmental attention to one's craving-related experience lessens not only the subjective experience of craving, but also its neural correlates



Brewer, J. A., Ruf, A., Beccia, A. L., Essien, G. I., Finn, L. M., van Lutterveld, R., & Mason, A. E. (2018). Can Mindfulness Address Maladaptive Eating Behaviors? Why Traditional Diet Plans Fail and How New Mechanistic Insights May Lead to Novel Interventions. *Frontiers in Psychology*, 9, 1418.

Westbrook, C., Creswell, J. D., Tabibnia, G., Julson, E., Kober, H., & Tindle, H. A. (2013). Mindful attention reduces neural and self-reported cue-induced craving in smokers. *Social Cognitive and Affective Neuroscience*, 8(1), 73–84. <https://doi.org/10.1093/scan/nsr076>

# Targeting reward-based eating with mindfulness

## Increasing awareness

- Of maladaptive eating behaviours and triggers
- Of hunger, fullness and satiety signals

## Exploring experience & evaluate outcomes

- Assessment of everything that results from an episode or new eating experience
- Effects of eating beyond satiety or when triggered
- Disenchantment

## Making embodied choices

- Unforced freedom of choice
- Heightened ability to make intuitive choices that support self-care



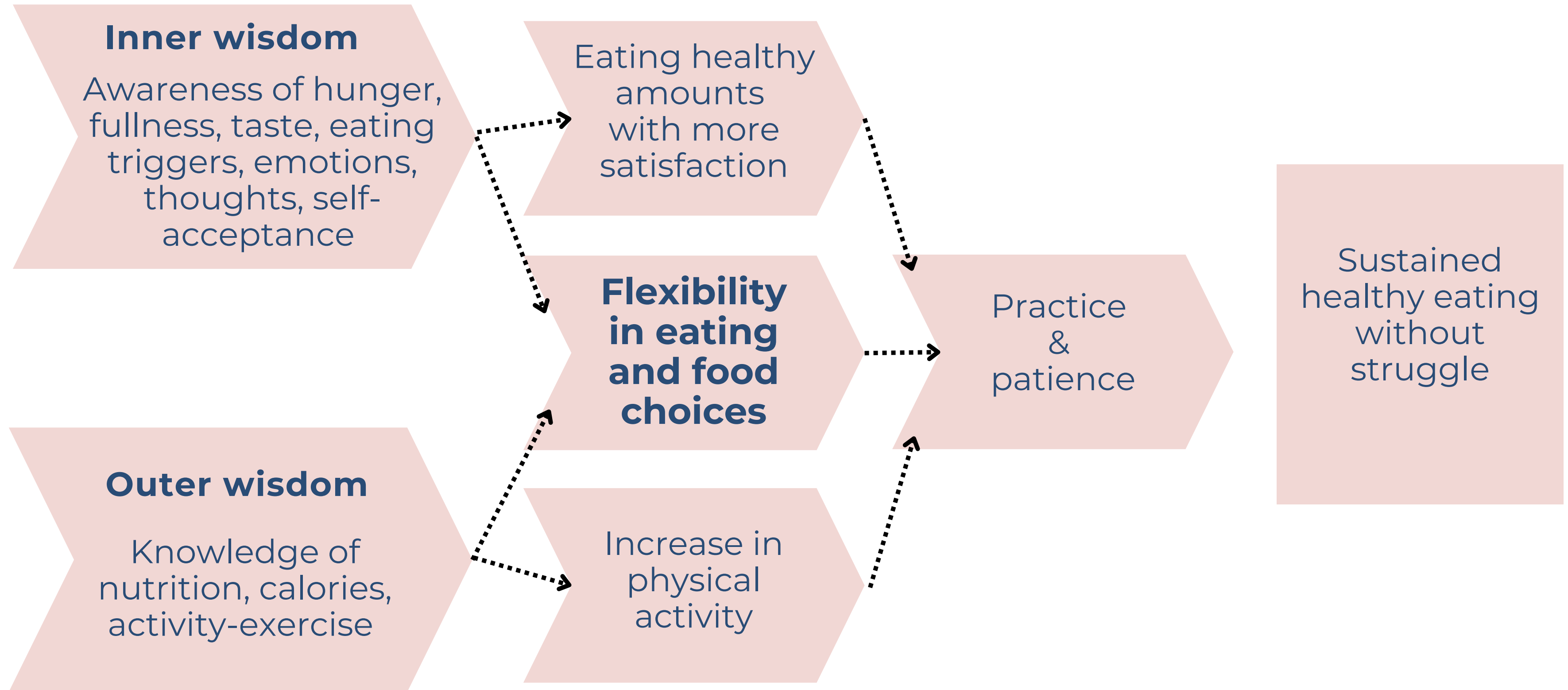
# Mindfulness Based Eating Awareness Training (MB-EAT)



Dr. Jean Kristeller PhD

- Inner wisdom
  - Listening/responding to body's needs
  - Recognizing thoughts and emotions
  - How to use emotions without turning to food
  - Connecting body and mind
- Outer wisdom
  - Nutrition information
  - Food energy & energy needs
  - Physical movement

# Kristeller's Inner & Outer Wisdom Model



# Mindfulness, mindful eating, intuitive eating & eating behaviour change

Structured review 68 studies

Intervention & observational

- Various BMI ranges (18-24.9; >25 & >30)
- MB approaches appear most effective in addressing emotional eating, binge eating and eating in response to external cues.
- Lack of research for weight loss\*
- May prevent weight gain via reduced food intake in elevated & high BMI
- Increased awareness of internal vs external cues.

Warren, J. M., Smith, N., & Ashwell, M. (2017). A structured literature review on the role of mindfulness, mindful eating and intuitive eating in changing eating behaviours: effectiveness and associated potential mechanisms. *Nutrition Research Reviews*, 30(2), 272–283. doi: 10.1017/s0954422417000154



# Mindfulness, mindful eating, intuitive eating & eating behaviour change



Binge eating (BE) measured in 9 studies

- BMI >25 and >30.
- Mindfulness, MB-EAT, MBSR, MCBT.
- All studies reported positive changes in BE
- Ability to eat mindfully seems key in management of BE
- Reductions in EE reported in 7 out of 10 studies measuring EE.

Warren, J. M., Smith, N., & Ashwell, M. (2017). A structured literature review on the role of mindfulness, mindful eating and intuitive eating in changing eating behaviours: effectiveness and associated potential mechanisms. *Nutrition Research Reviews*, 30(2), 272–283. doi: 10.1017/s0954422417000154

# Mindfulness, mindful eating, intuitive eating & eating behaviour change

Of studies measuring external eating, 4 out of 5 showed positive changes in external eating in populations suffering from stress eating, problematic eating & disordered eating attitudes.

Mindful eating techniques used: body scans, breathing exercises, awareness of bodily sensations

Warren, J. M., Smith, N., & Ashwell, M. (2017). A structured literature review on the role of mindfulness, mindful eating and intuitive eating in changing eating behaviours: effectiveness and associated potential mechanisms. *Nutrition Research Reviews*, 30(2), 272–283. doi: 10.1017/s0954422417000154



# Mindfulness, mindful eating, intuitive eating & eating behaviour change

This suggests that to effect change in emotional eating and external eating, it's important to use techniques that increase awareness of internal states, combined with acceptance techniques and mindful eating.

Warren, J. M., Smith, N., & Ashwell, M. (2017). A structured literature review on the role of mindfulness, mindful eating and intuitive eating in changing eating behaviours: effectiveness and associated potential mechanisms. *Nutrition Research Reviews*, 30(2), 272–283. doi: 10.1017/s0954422417000154



# Mindful eating practices

Practices teach individuals how to:

- Notice distressing thoughts, emotions, sensations
- Increase awareness
- Improves distress tolerance
- Reduce misperception of emotions as hunger
- Increase ability to relax during negative events & emotions
- Reduce impulsivity associated with mindless overeating in BMI >40.

Warren, J. M., Smith, N., & Ashwell, M. (2017). A structured literature review on the role of mindfulness, mindful eating and intuitive eating in changing eating behaviours: effectiveness and associated potential mechanisms. *Nutrition Research Reviews*, 30(2), 272–283. doi: 10.1017/s0954422417000154



# Understanding of mindfulness



- fMRI shows mindfulness is associated with reduced amygdala activity and may reduce emotional arousal.
- Possibly works by increasing interoceptive awareness
- Decreasing emotional & external cues to eating.

Warren, J. M., Smith, N., & Ashwell, M. (2017). A structured literature review on the role of mindfulness, mindful eating and intuitive eating in changing eating behaviours: effectiveness and associated potential mechanisms. *Nutrition Research Reviews*, 30(2), 272–283. doi: 10.1017/s0954422417000154



# Mindfulness intervention for stress eating

Study to explore effects of a mindfulness program for stress eating in women.

- N =47; premenopausal; BMI > 25 (mean 31.2)
- Randomized 4-mo intervention or waitlist
- 62% white, 15% Latino, 15% Asian, 9% other
- High emotional eating on DEBQ
- Pre & post assessment: mindfulness, psychological distress, eating behaviour, weight, cortisol awakening response (CAR), and abdominal fat (DEXA).

Daubenmier, J., Kristeller, J., Hecht, F. M., Maninger, N., Kuwata, M., Jhaveri, K., ... Epel, E. (2011). Mindfulness Intervention for Stress Eating to Reduce Cortisol and Abdominal Fat among Overweight and Obese Women: An Exploratory Randomized Controlled Study. *Journal of Obesity*, 2011.



# Mindfulness intervention for stress eating

- Tx group improved in mindfulness, anxiety, and external-based eating compared to control.
- Groups didn't differ on average CAR, weight, or abdominal fat over time.
- Those in Tx group with BMI >30 showed significant reductions in CAR and maintained body weight (control participants with BMI >30 had stable CAR and gained weight).

Daubenmier, J., Kristeller, J., Hecht, F. M., Maninger, N., Kuwata, M., Jhaveri, K., ... Epel, E. (2011). Mindfulness Intervention for Stress Eating to Reduce Cortisol and Abdominal Fat among Overweight and Obese Women: An Exploratory Randomized Controlled Study. *Journal of Obesity*, 2011.

# Mindful eating RCT trial

- 194 individuals, BMI >30
- 5.5 month diet-exercise program with mindfulness vs active control
- 1.5 year trial period
- Each arm included healthy food choices, modest calorie reduction (500 cal/day), decreasing simple carbs, substituting whole grains, increasing fruit and veggie intake, “healthy” oils and protein.

Daubenmier, J., Moran, P. J., Kristeller, J., Acree, M., Bacchetti, P., Kemeny, M. E., ... Hecht, F. M. (2016). Effects of a mindfulness-based weight loss intervention in adults with obesity: A randomized clinical trial. *Obesity*, 24(4), 794–804. doi: 10.1002/oby.21396



# Reducing reward-driven eating

- Compared to control, mindfulness participants had significant reductions in reward-driven eating 6 months post-intervention, which predicted weight loss at 12 months
- The reduction in reward-driven eating mediated 47.1% of the reduction in weight at 12 months and 23% at 18 months in the intervention group

Mason, A. E., Epel, E. S., Aschbacher, K., Lustig, R. H., Acree, M., Kristeller, J., Cohn, M., Dallman, M., Moran, P. J., Bacchetti, P., Laraia, B., Hecht, F. M., & Daubenmier, J. (2016). Reduced reward-driven eating accounts for the impact of a mindfulness-based diet and exercise intervention on weight loss: Data from the SHINE randomized controlled trial. *Appetite*, 100, 86–93.



# Stress eating, compulsive eating & metabolic health

- Higher compulsive eating at baseline had greater improvements in fasting glucose at 18 months in mindfulness group
- Reductions in compulsive eating associated with changes in fasting glucose and weight at 12 and 18 months
- Those with stress eating at baseline had higher BMI (2 points)
- Decreases in stress eating and compulsive eating associated with greater weight loss at 18 months

Radin, R. M., Epel, E. S., Daubenmier, J., Moran, P., Schleicher, S., Kristeller, J., ... Mason, A. E. (2019). Do Stress Eating or Compulsive Eating Influence Metabolic Health in a Mindfulness-Based Weight Loss Intervention? *Health Psychology, 39*(2), 147–158.



# Mindful eating practices for beginners

- Education on emotional eating & triggers
- Eating away from distractions
- Awareness of hunger & fullness cues
- Emphasizing quality over quantity
- Mindful eating practices
- Observe & reflect on emotional eating with curiosity
- Using senses to choose pleasing foods
- Working up to increasingly challenging foods \*



# Coaching strategies: what do people find helpful?

Qualitative, N = 119 (79 completed)

Ascertain which coaching strategies match needs when experiencing cravings and following eating.

Types of coaching strategies:

- validating
- focus-on-change
- dialectical

Perception of helpfulness of coaching strategies.

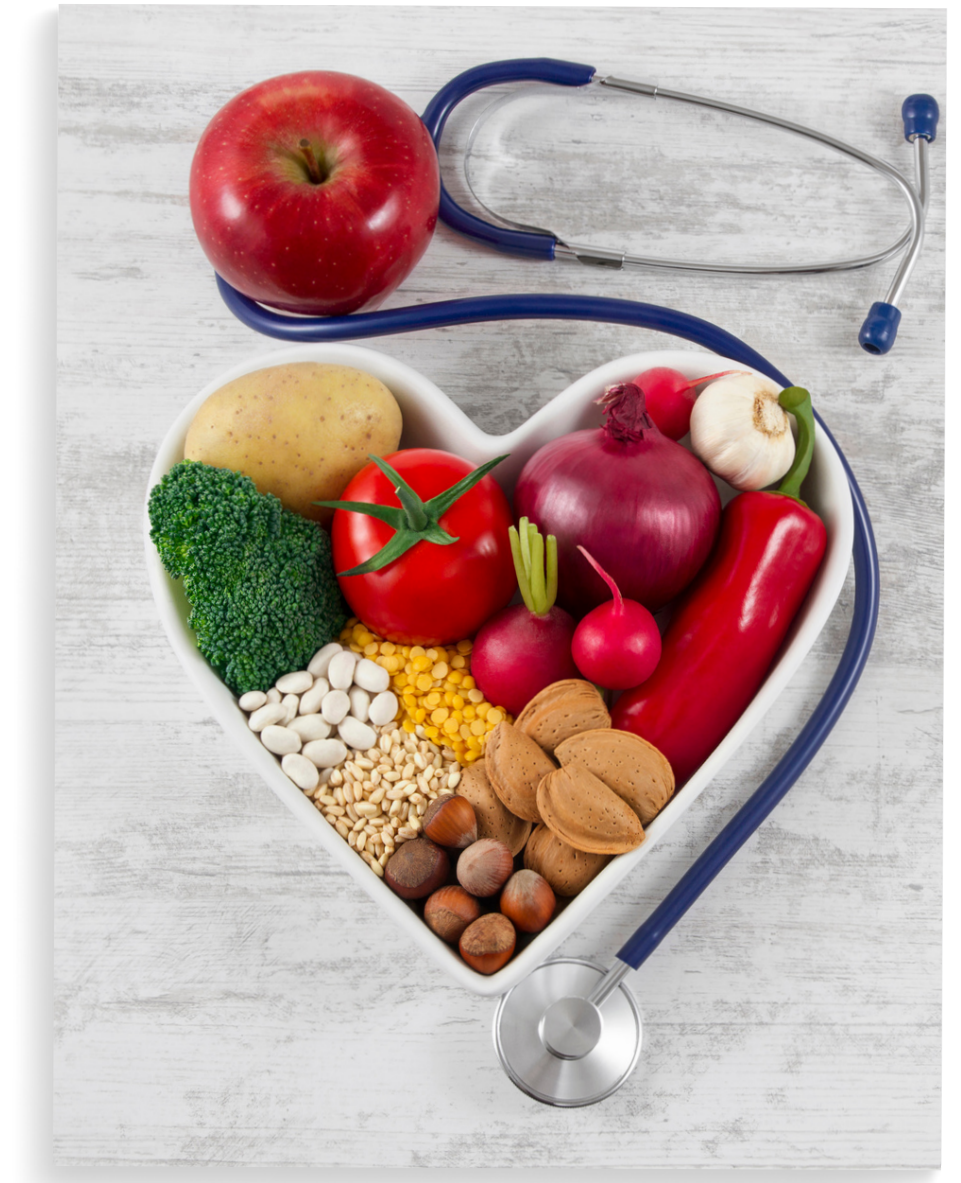


# Coaching strategies: what do people find helpful?

- Valued validation of emotions & behaviour & focus-on-change
- Combination for mental support & practical advice
- Most were familiar with own EE behaviour; wanted to break behavioural patterns, recurring thoughts.

## Wanted to learn:

- How to cope with their emotions.
- Insight into behaviour & conditions that lead to eating.
- Meal plan & prep of satisfying, wholesome meals
- Gain insight into emotional process to break patterns & habits
- Guidance and advice
  - Alternative activities
  - Distractions from cravings
  - Escape from the midst of binge



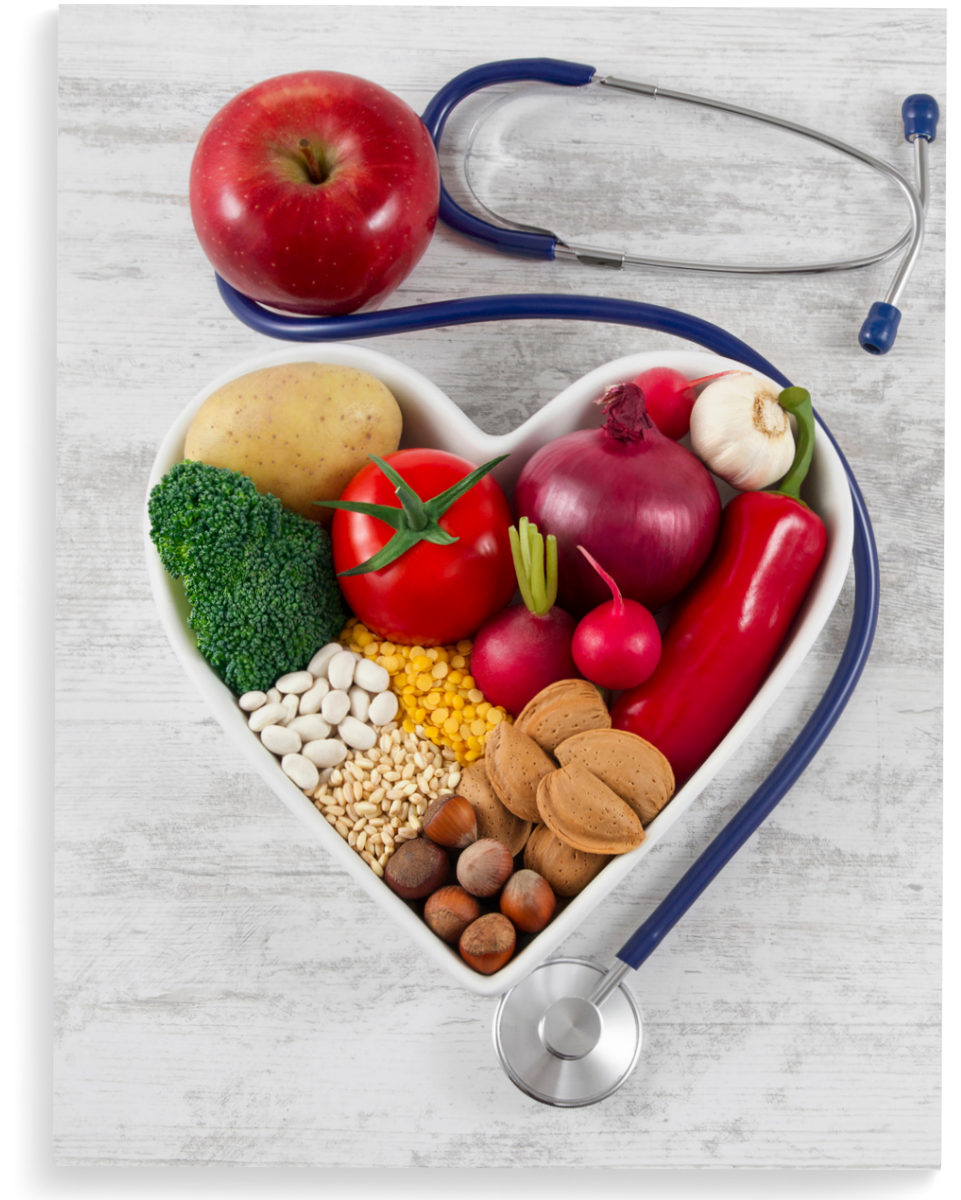
# Different levels of awareness

Individuals differed in awareness of role that emotions play in their eating & need for emotion-regulation skills.

1 - Those unaware of association between emotions & eating behaviour who want a practical solution.

2 - Those aware of their emotions and feel unclear of association between their emotions & eating, but don't express it in terms of emotion-regulation

3 - Those aware of their emotions, and express need to learn how to regulate them.

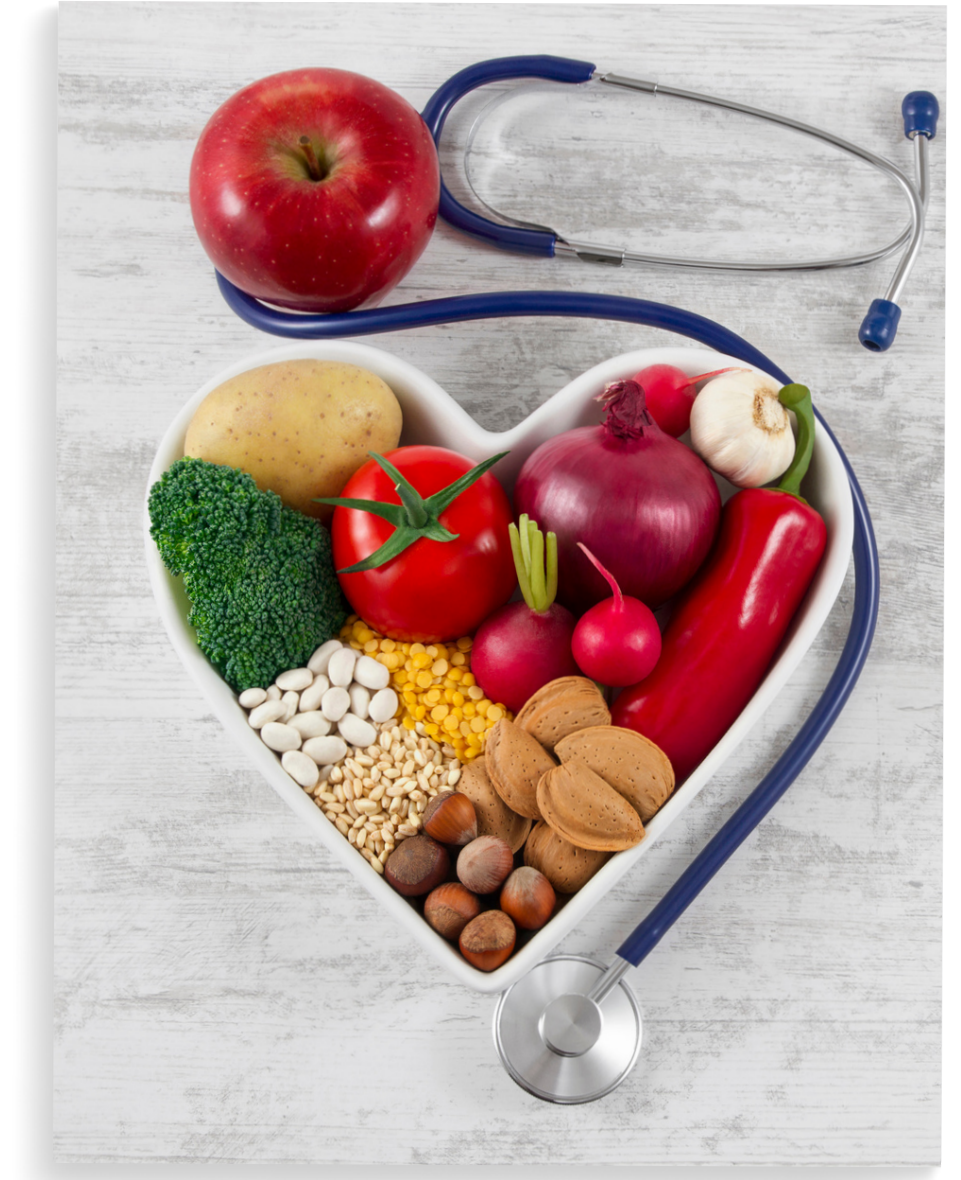


# Validating eating behaviour

Most disapproved of validating eating behaviour after emotional eating:

- Deemed behaviour as “wrong”
- Considered EE behaviour to be a greater transgression than allowing comfort of food
- Didn't consider food as comforting
- Overwhelmed by feelings of shame & regret, and potential for relapse.


Regret may be triggered by quantity of food consumed.



# Two points for intervention

- Before emotional eating when experiencing
  - negative emotions and distress
  - cravings
- After giving in to emotional eating
  - experiencing negative emotions
  - feelings of shame and disgust



A solid red vertical bar is positioned on the left side of the slide, extending from the top to the bottom.

# Practical management of emotional eating in practice

# Starting points

- Engage patient, introduce prospect of change in relation to their overall health goals
  - Focus on behaviours, not weight
  - Avoid using triggering or stigmatizing words
- Eating inquiry
- Encourage reflection
- Formulate and help them understand the process that maintains the eating behaviour
- Screen for disordered eating behaviour\*
- Offer education on factors associated with emotional eating
- Improving interoceptive awareness
- Mindful eating practices

**\* Refer to 2022 OAND Convention talk: *Exploring Disordered eating in Naturopathic Practice***



# Avoiding triggering weight stigma or body shame

Neutralize language of weight, size, shape

- Avoid O words to describe weight
  - Neutral descriptors: higher weight, large, fat\*
- Observe/ask their preferred descriptors
- Don't compliment weight loss or dieting
- What would achieving weight/body based goals mean?
- What's their underlying motivation?

National Association for the Advancement of Fat Acceptance. (2020).  
Guidelines for healthcare providers with fat clients. [naafa.org](http://naafa.org).  
Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity*.  
2012;17(5):941–964.



# Reconsider use of the words

1. The terms are offensive & describe people who are unmotivated, depressed and don't care about themselves;
2. Ob\*se is an extreme weight (e.g. *"500 pounds and being immobile"*);
3. Being "overweight" is a matter of opinion; if a woman is "comfortable in her own skin" and "feels healthy" she is not "overweight."

Health education focused on weight should consider:

- Vulnerable populations might consider terms offensive & stigmatizing
- Focus efforts on reducing the stigma
- Educating the public that causes are complex, multifactorial, and not simply about "not caring about oneself" or lacking motivation



# Neutralizing food language

Clean, healthy, good vs junk, processed, bad

Avoid demonizing or moralizing any foods

Cheat days, treats, rewards

Dirty dozen vs clean fifteen

Recommend organics in context

**Sweet food**

**Convenience, quick or fast food**

# Counseling vs psychotherapy

Based on the Regulated Health Professions Act (RHPA) definition of performing the controlled act of psychotherapy:

1. You are treating a patient
2. You are applying a **psychotherapy technique (CBT)**
3. You have a therapeutic relationship with the patient
4. The patient has a serious disorder of thought, cognition, mood, emotional regulation, perception or memory
5. This disorder may seriously impair the patient's judgment, insight, behaviour, communication or social functioning



# Inquiry

- Tell me about your eating...
- What do you feel is going well?
- What do you find challenging?
- Are there any particular foods that you feel are challenging for you?
- Are there any particular foods that you avoid because you don't trust yourself around them?
- Do you ever feel like you can't stop eating once you start?
- Do you notice any changes in your eating in response to stress, anxiety or strong emotions?
- Do you notice any changes in your eating in response to boredom or loneliness?



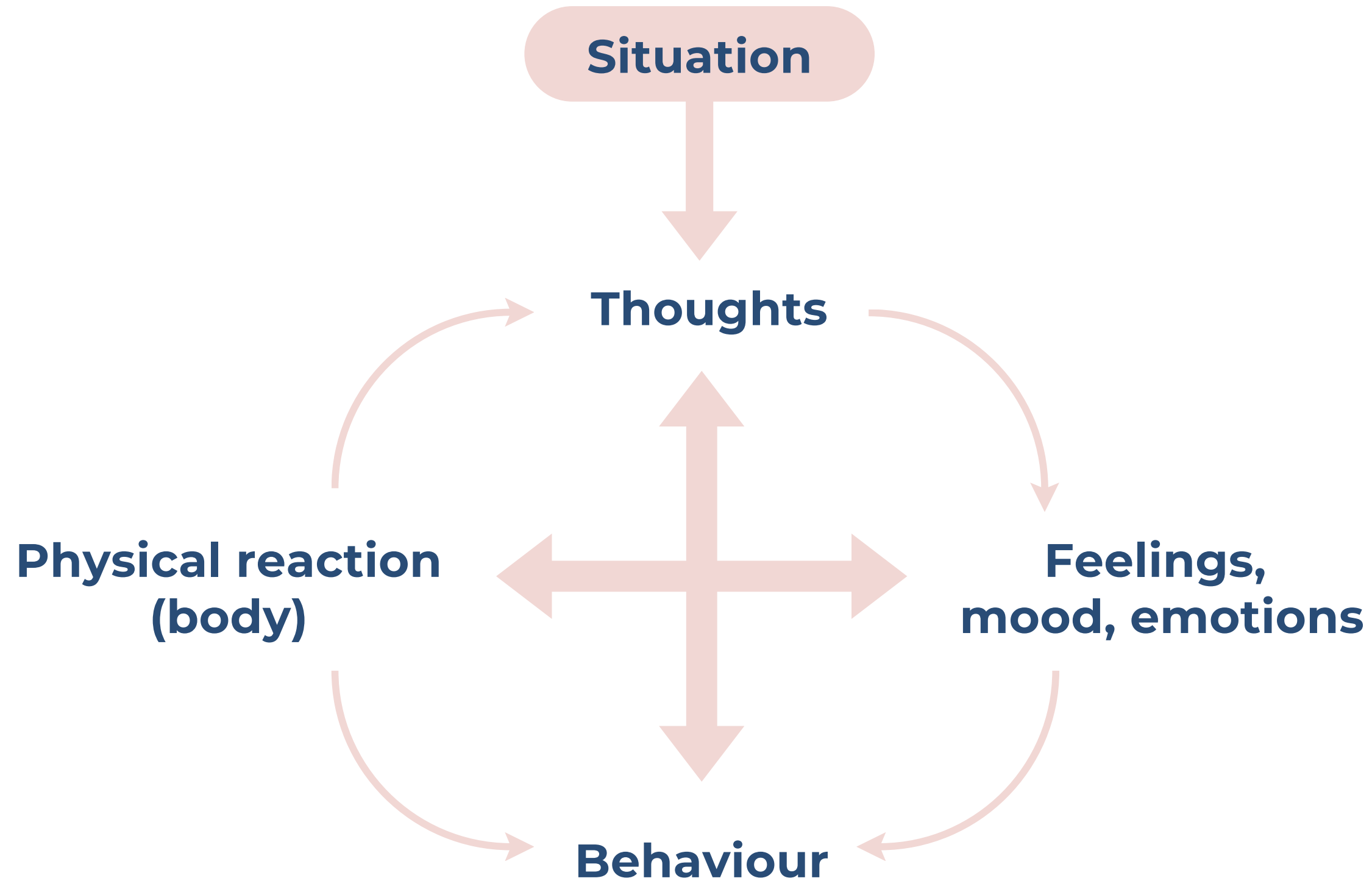
# Encourage reflection

“Looking back to reflect can be helpful to gain awareness into eating behaviour. Can you think of a recent time that you experienced emotional eating?”

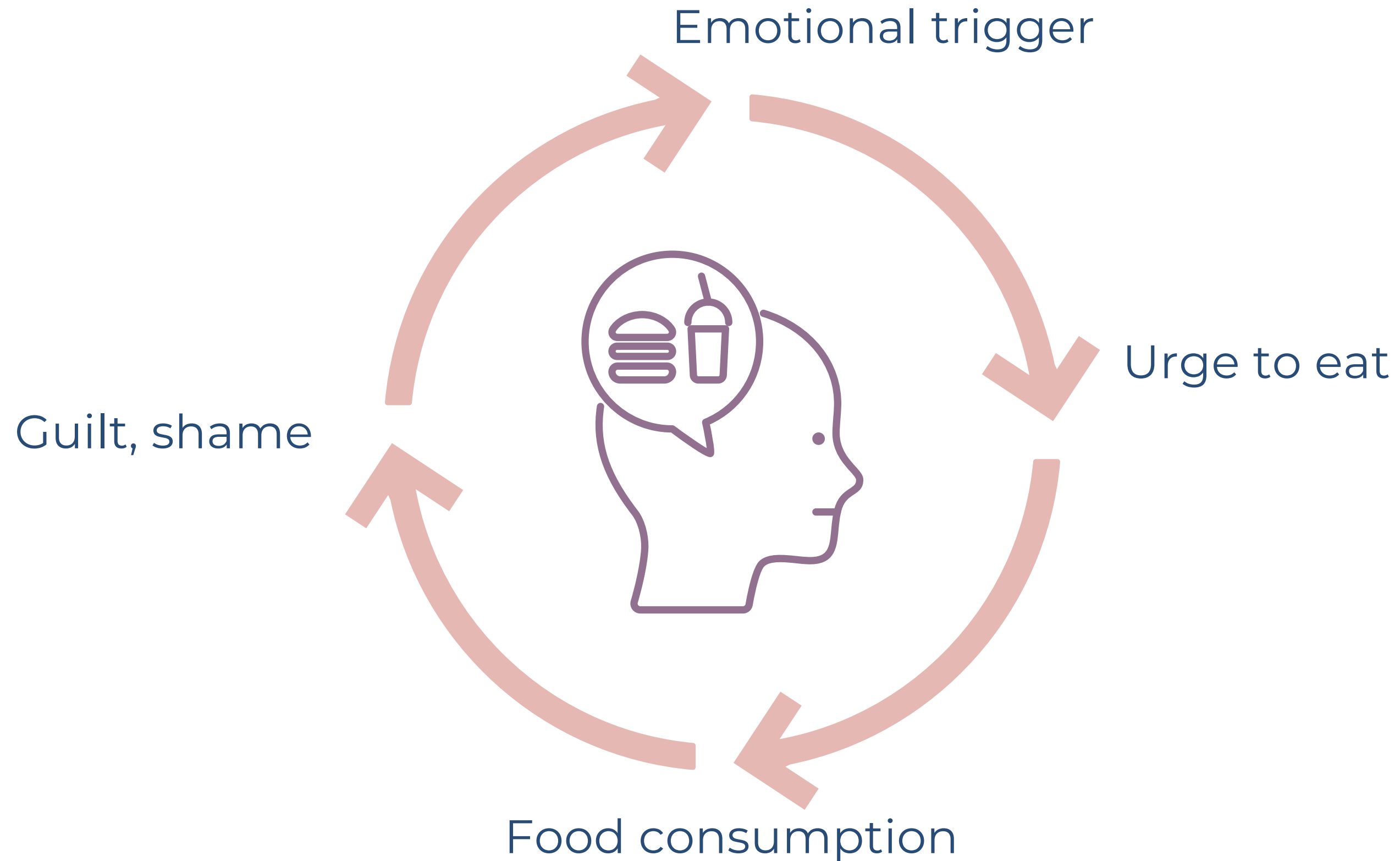
Tell me a bit about what happened...

- How were you feeling?
- What thoughts did you have at the time?
- How did it impact your eating behaviour?
- Can you think of what situation may have triggered it?
- Do you remember how you felt in your body at the time?

# Assessment: 5-Factor Model



# Conceptualizing emotional eating



# Establish regular meal timing

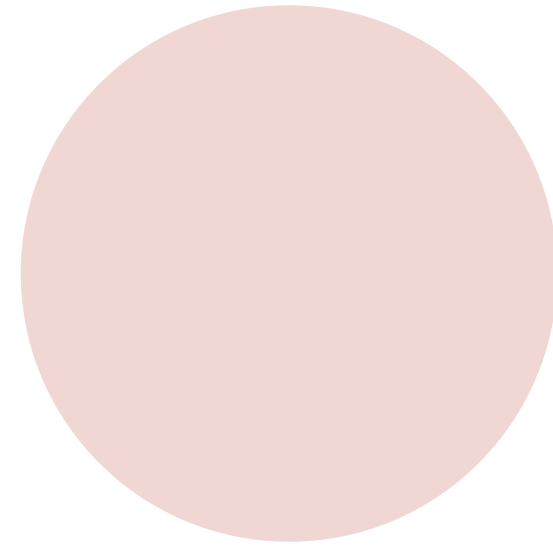


Very helpful with emotional eating

Helps to re-establish hunger and fullness cues

Establish regular meal times and patterns.

Typically eating every 4 hrs  
3 meals minimum + snacks prn



It's difficult to self-regulate when  
going into a meal hangry.



# Eating Monitoring

<b>TIME</b>	<b>FOOD &amp; DRINK CONSUMED</b>	<b>PLACE</b>	<b>*</b>	<b>CONTEXT &amp; COMMENTS</b>
	<p>[Episodes of eating that you view as meals should be identified with brackets]. Snacks and other episodes of eating should not be bracketed.</p>	<p>Where was food consumed? Specify where</p>	<p>Whether you felt eating was excessive</p>	<p>Make a note of any circumstances, events, thoughts, feelings or any other observations you have of the episode.</p>

# Address distracted eating

- When, where, how often
- Eating behaviour, amount eaten
- Hunger, fullness and satiety cues)
- Circumstances that may be adjusted for undistracted eating



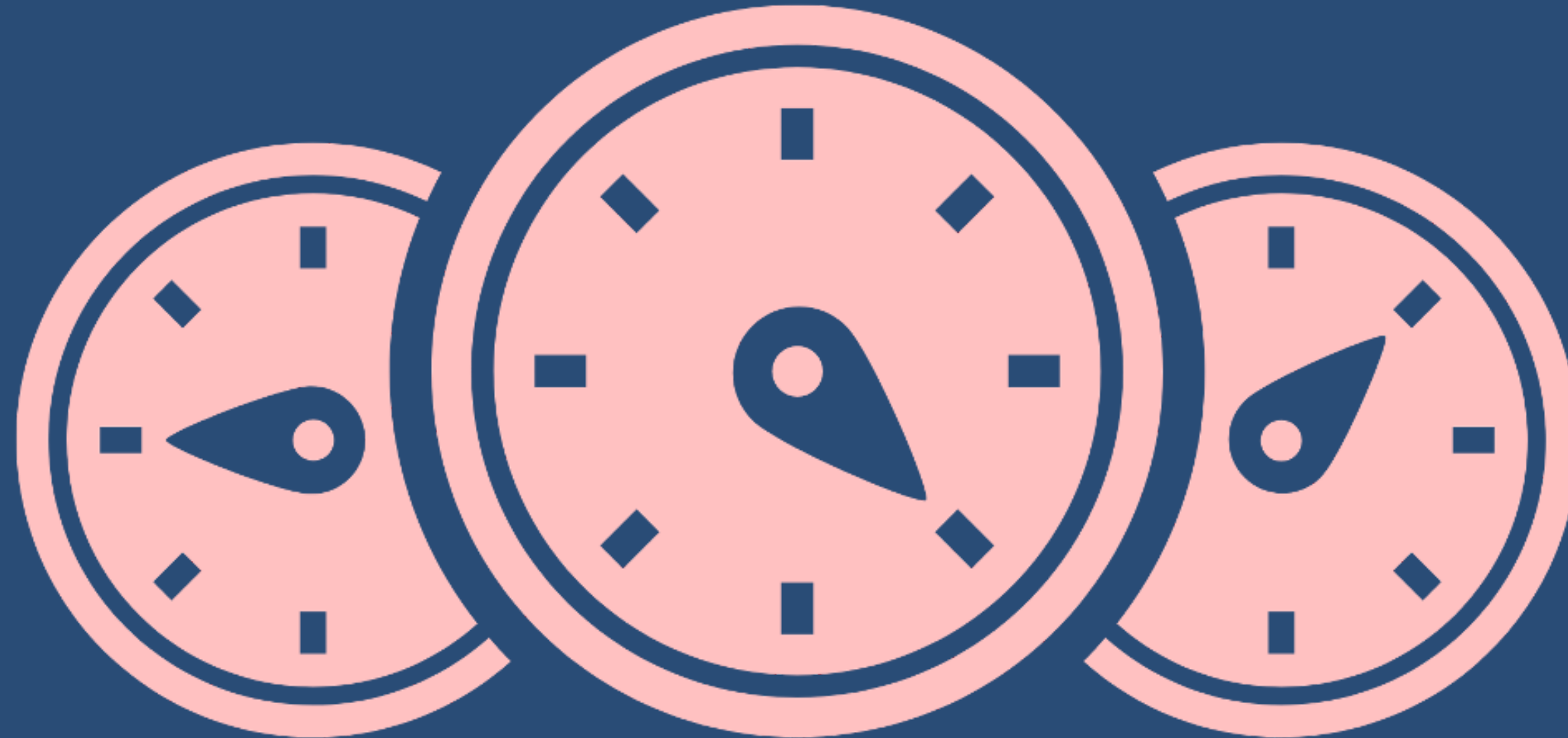
# Explore nutritional quality of meal

- ✓ Carbohydrates
- ✓ Protein
- ✓ Fat
- ✓ Fiber



Breathe





Hunger

Fullness

Satiety

# The Foodometer

A woman with long, wavy blonde hair is seen from the back, looking out a window. She is holding a pink mug with both hands. The background outside the window is a bright, green, out-of-focus landscape. The text is overlaid on a semi-transparent white rectangular area in the center of the image.

Asking:

*What do I need right now?*

# Mindful eating practice



# Mindful inquiry

**What did you notice?**

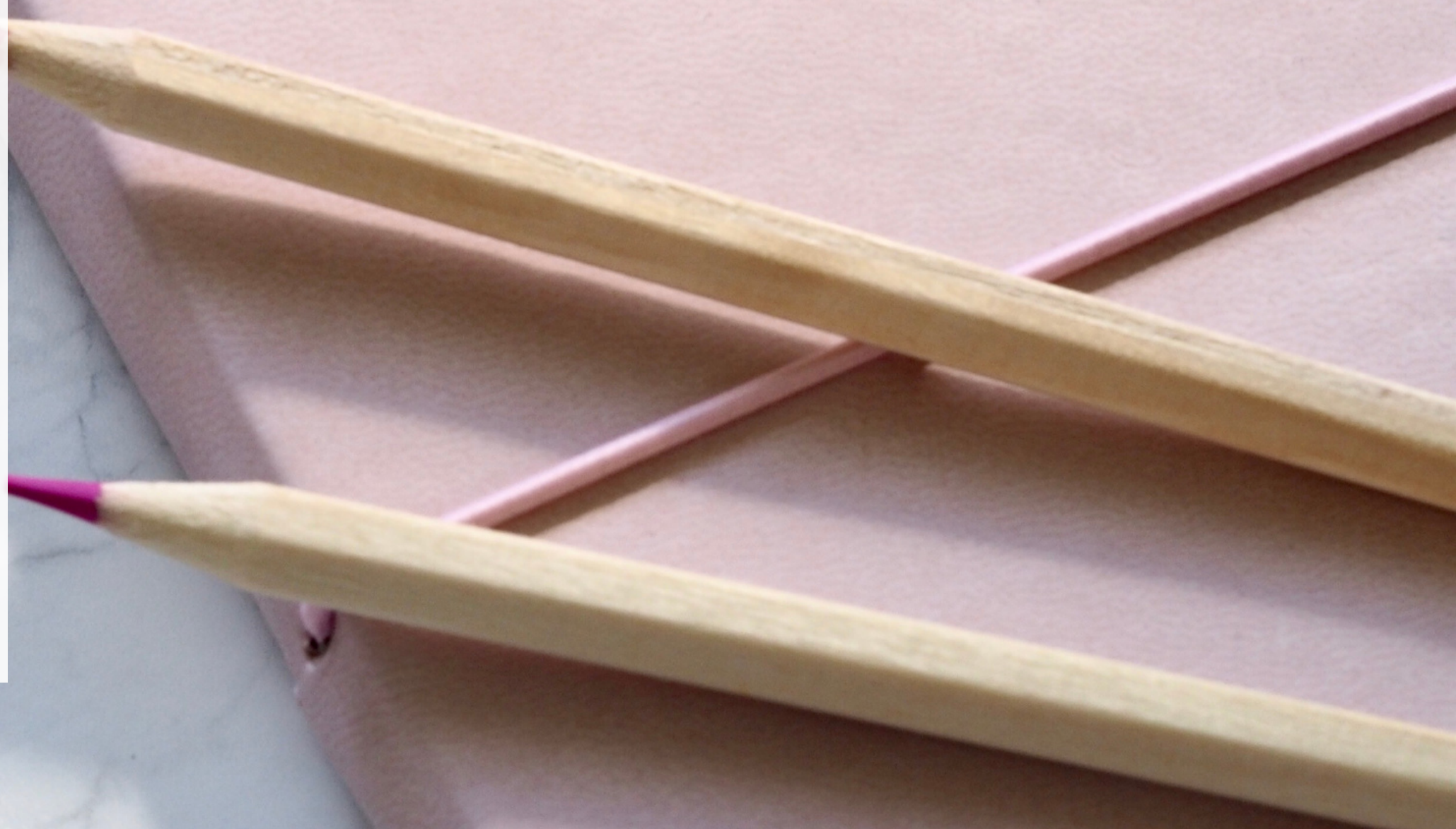
**Was it pleasant?**

**Unpleasant?**

**Neutral?**

**How could you use this  
information going forward?**

JOURNAL





Taking a halfway  
breather  
“the speedbump”

# Mindful Eating Journal

## Meal:

Date & time:

Ingredients:

Notes about experience:

## Ratings from 0 to 10

Hunger Fullness Satiety

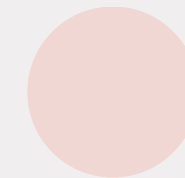
Before Meal



During Meal



After Meal





Putting it all  
together with  
Ms Grilled Cheese



# Q&A

For additional resources, visit:

**[drsylviamartin.com/OAND2023eating](https://drsylviamartin.com/OAND2023eating)**