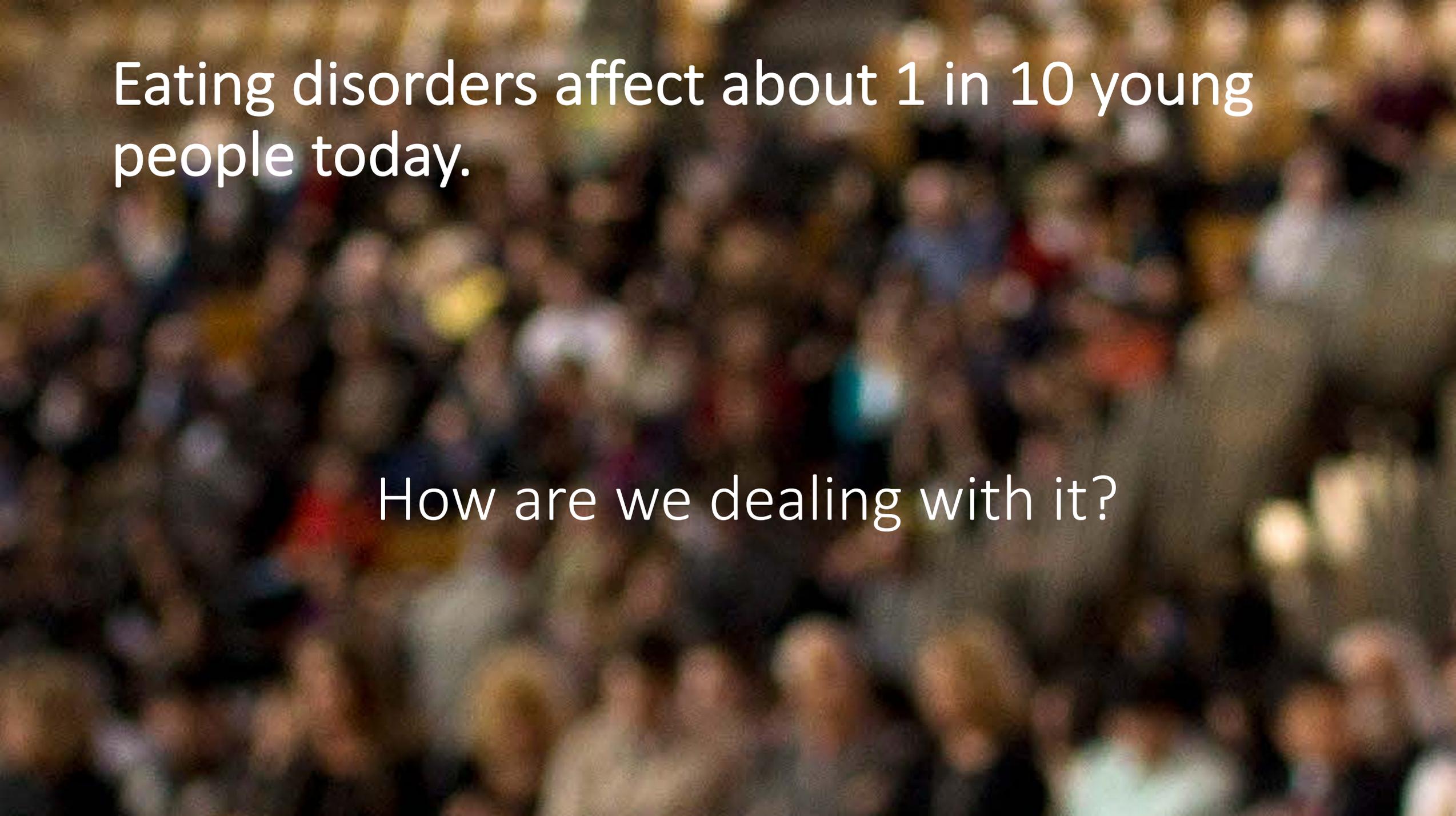


A woman with long brown hair, wearing a white sleeveless dress and black high-heeled sandals, is walking on a paved road. She is carrying a large bunch of colorful balloons (purple, green, orange, yellow, pink) that are tied to her back. The background shows a grassy field, trees, and a cloudy sky.

# Hope for Eating Disorders? Current Status of Treatment and Research Outcomes

Anna Keski-Rahkonen  
Professor of Mental Health  
University of Helsinki, Finland

A blurred background image of a large crowd of people, likely at a public event or festival. The people are out of focus, creating a bokeh effect with various colors of clothing and hair. The overall tone is warm and busy.

Eating disorders affect about 1 in 10 young people today.

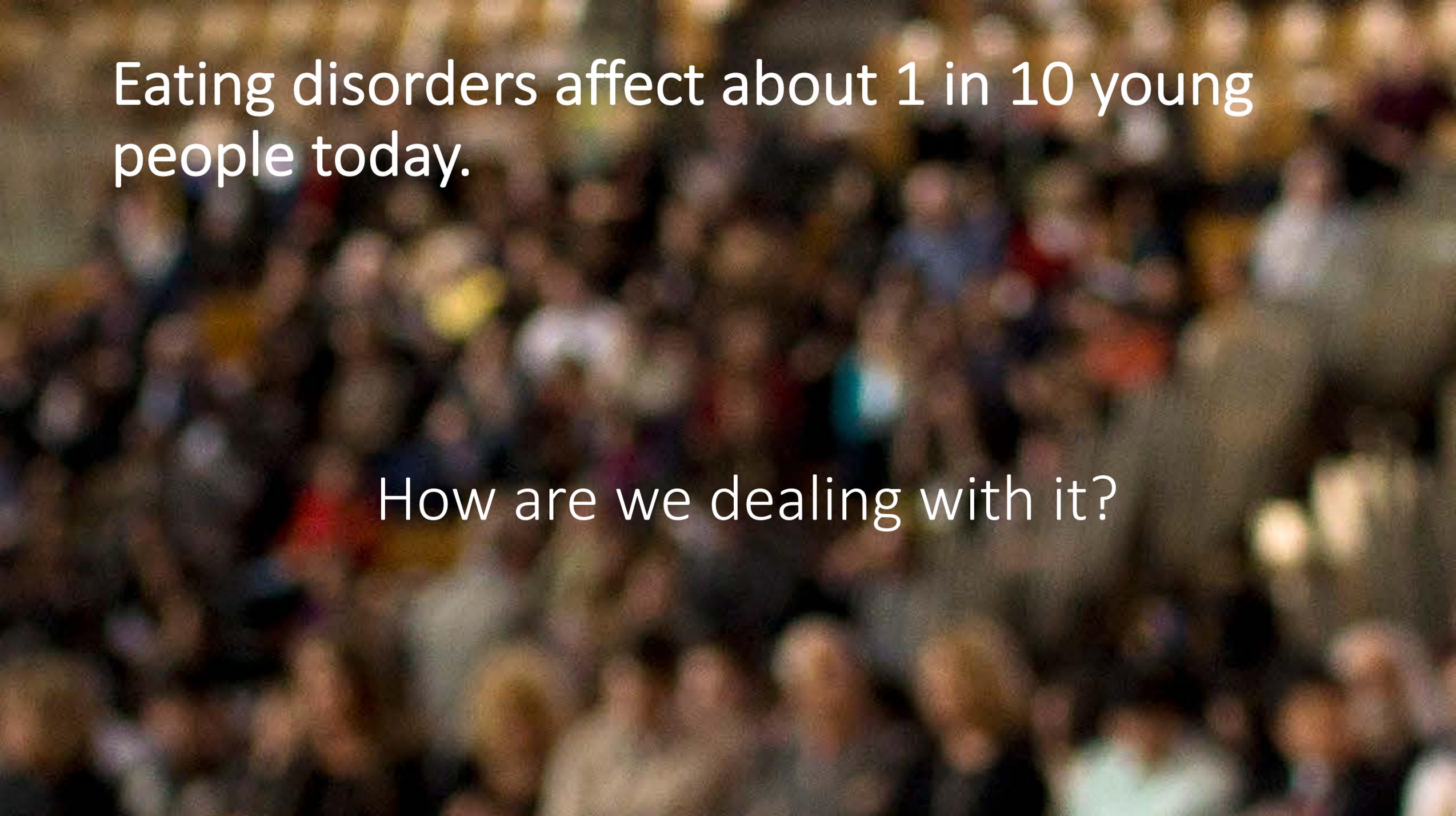
How are we dealing with it?

# Eating disorders affect about 1 in 10 young people today.

Prevalence of DSM-5 eating disorders up to age 22 in Finland  
10.5% pooled across genders

- 17.9% for females (~1 in 6)
- 2.4% for males (~1 in 40)
  
- Anorexia nervosa 6.2% of women and 0.3% of men
- Bulimia nervosa 2.4% of women and 0.16%
- Binge-eating disorder 0.6% of women and 0.3% of men
- Other specified feeding or eating disorder 4.5% of women and 0.16% of men
- Unspecified feeding or eating disorder 4.5% of women and 1.6% of men

Silén Y, Sipilä PN, Raevuori A, Mustelin L, Marttunen M, Kaprio J, Keski-Rahkonen A. DSM-5 eating disorders among adolescents and young adults in Finland: A public health concern. *Int J Eat Disord*. 2020 Jan 30. doi: 10.1002/eat.23236

A blurred background image of a large crowd of people, likely at a public event or festival. The people are out of focus, creating a bokeh effect with various colors of clothing and hair. The overall tone is warm and busy.

Eating disorders affect about 1 in 10 young people today.

How are we dealing with it?

# Today's Agenda

- #1 How likely is it to get into treatment?
- #2 How likely is recovery after treatment?
- #3 Which factors predict relapse and drop-out?
- #4 What is the long-term course of eating disorders?
- #5 How long does recovery take on average?
- #6 How do people living with eating disorders define recovery?



How likely is it to get into treatment?

30% of women

13% of men

were treated for eating disorders

Silén et al, in preparation.



How likely is recovery after treatment?

# How are favorable outcomes are defined in treatment research?

“There are almost as many definitions as there are studies on the topic”

Bardone-Cone AM, Hunt RA, Watson HJ. An Overview of Conceptualizations of Eating Disorder Recovery, Recent Findings, and Future Directions. *Curr Psychiatry Rep.* 2018;20(9):79. doi:10.1007/s11920-018-0932-9



How are favorable outcomes defined in treatment research?

57% to 94% of patients were defined as recovered using different definitions of recovery in the same group of anorexia patients

Couturier J, Lock J. What is recovery in adolescent anorexia nervosa?. *Int J Eat Disord.* 2006;39(7):550–555. doi:10.1002/eat.20309

# How are favorable outcomes defined in treatment research?

- Depending on how recovery was defined, 63% to 93% patients with anorexia nervosa were defined as recovered.

Recovery criterion	Percent recovered
Weight - BMI 17.5	93%
Weight - BMI 18.5	86%
Weight - BMI 20	63%
EDE-Eating concern within 1 SD	85%
EDE-Shape concern within 1 SD	71%
EDE-Weight concern within 1 SD	69%

“I am a better than average driver”



Without a standard definition of recovery, comparisons are meaningless

Let's review the evidence



# Systematic reviews



- All relevant research taken into account
- Quality of research assessed
- Estimates of effect size provided

Anorexia nervosa: how likely is recovery?



# Anorexia nervosa: Family therapy A Cochrane Review

- 25 trials (16 of adolescents, 8 of adults)
- Family therapy may be effective compared to other treatment as usual in the short term
- This effect might not be maintained at follow-up
- Difficult to determine whether family therapy offers any advantage over educational interventions for remission.

Fisher CA, Skocic S, Rutherford KA, Hetrick SE. Family therapy approaches for anorexia nervosa. Cochrane Database Syst Rev. 2018 Oct 15;10:CD004780

# Anorexia nervosa: how likely is recovery?

- 35 eligible RCTs, 2524 patients, specialized treatments
- Treatments had impact on weight at end of treatment but not at follow-up (end of treatment  $g = 0.16$ , 95% CI 0.05-0.28, follow-up  $g = 0.11$ , 95% CI -0.04 to 0.27).
- There was no significant treatment effect on psychological outcomes at either (end of treatment  $g = -0.03$ , 95% CI -0.14 to 0.08, follow-up  $g = -0.001$ , 95% CI 0.11 to 0.11)

Murray SB, Quintana DS, Loeb KL, Griffiths S, Le Grange D. Treatment outcomes for anorexia nervosa: a systematic review and meta-analysis of randomized controlled trials. *Psychol Med*. 2019 Mar;49(4):535-544. doi: 10.1017/S0033291718002088.

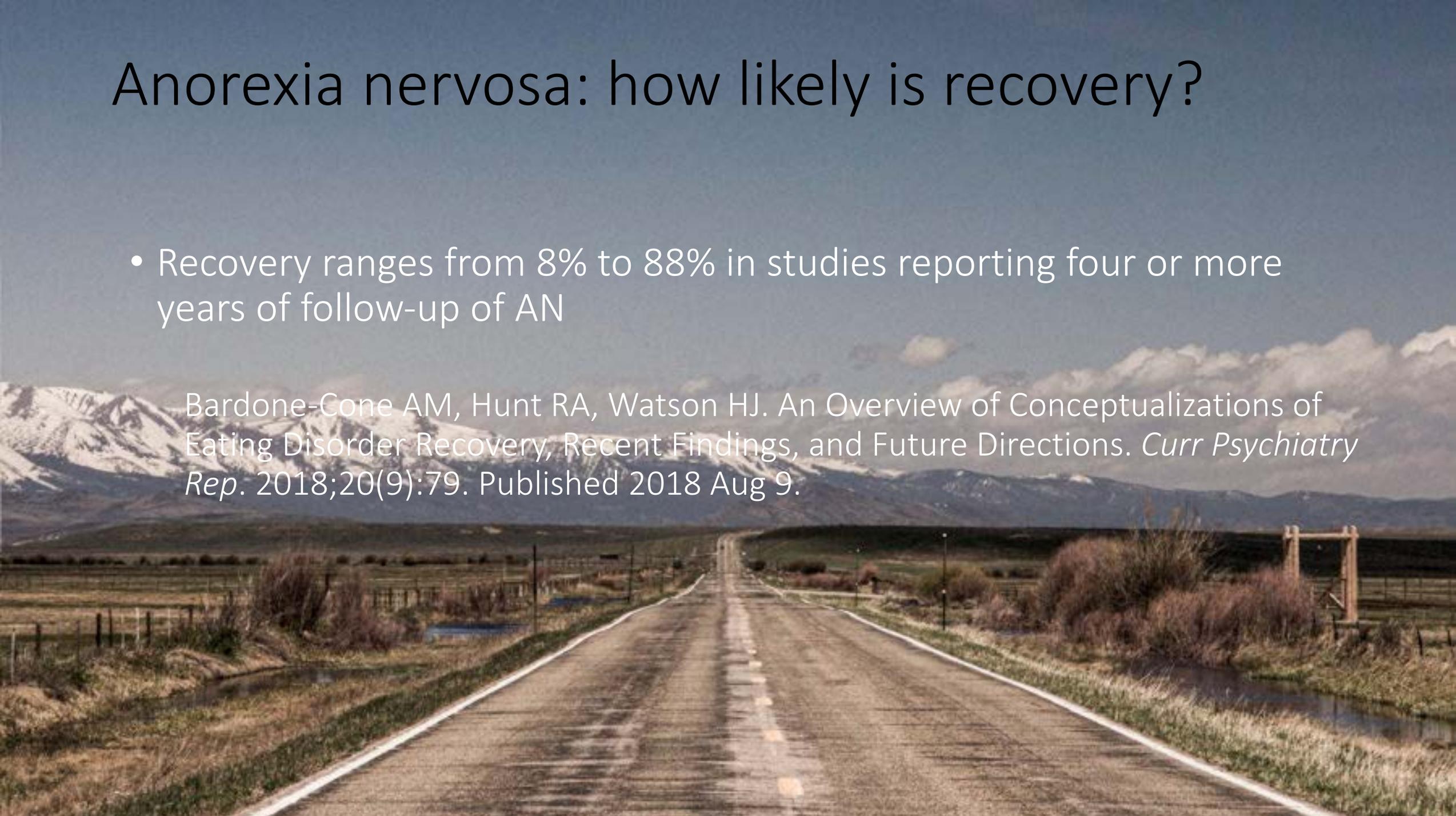
Wait a minute –  
what does this mean in  
practical terms?



# Anorexia nervosa: how likely is recovery?

- Recovery ranges from 8% to 88% in studies reporting four or more years of follow-up of AN

Bardone-Cone AM, Hunt RA, Watson HJ. An Overview of Conceptualizations of Eating Disorder Recovery, Recent Findings, and Future Directions. *Curr Psychiatry Rep.* 2018;20(9):79. Published 2018 Aug 9.



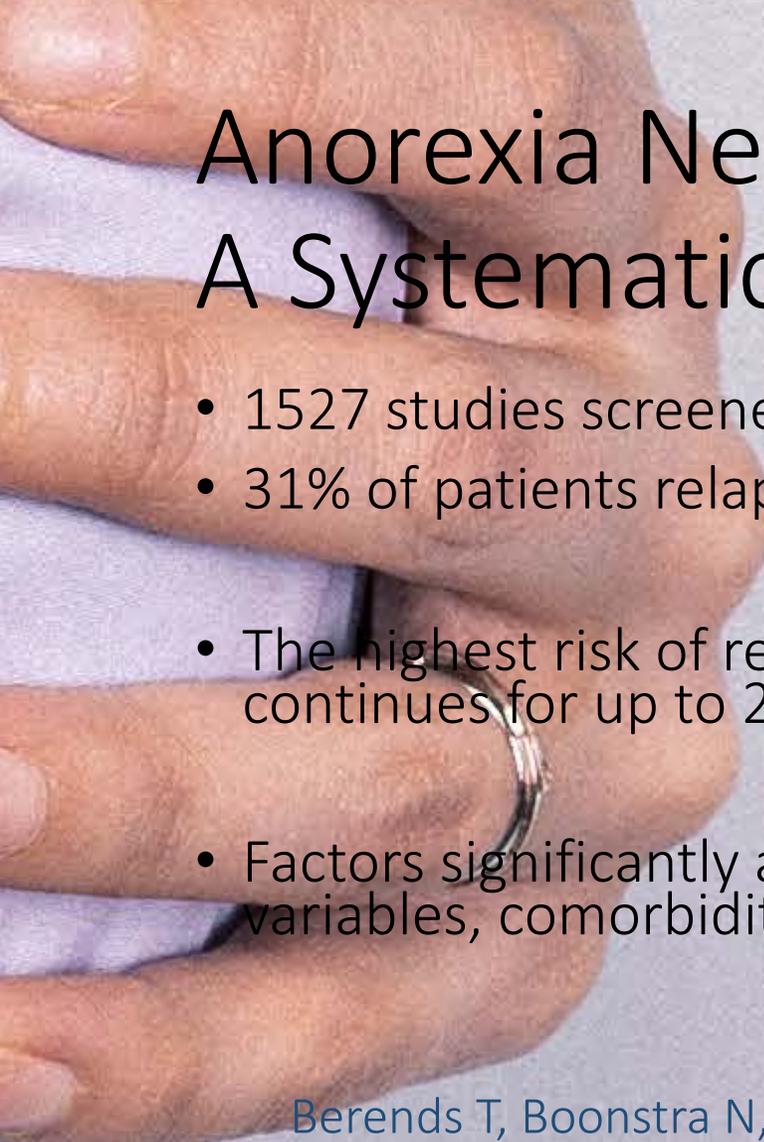
# Anorexia nervosa: who drop out of treatment?

## A Systematic Review

- 27 studies were included.
- Those with lower motivation, lower BMI, and the binge-purge subtype of AN predicted drop-out.
- Greater ED pathology and poorer motivation predicted poorer outcome.

Gregertsen EC, Mandy W, Kanakam N, Armstrong S, Serpell L. Pre-treatment patient characteristics as predictors of drop-out and treatment outcome in individual and family therapy for adolescents and adults with anorexia nervosa: A systematic review and meta-analysis. *Psychiatry Res.* 2019 Jan;271:484-501.

doi: [10.1016/j.psychres.2018.11.068](https://doi.org/10.1016/j.psychres.2018.11.068)



# Anorexia Nervosa: How likely is relapse? A Systematic Review

- 1527 studies screened, 16 included
- 31% of patients relapsed after treatment.
- The highest risk of relapse is during the first year after discharge and this risk continues for up to 2 years.
- Factors significantly associated with a higher risk of relapse: eating disorder variables, comorbidity symptoms, process treatment variables, demographics.

Berends T, Boonstra N, van Elburg A. *Curr Opin Psychiatry*. 2018 Nov;31(6):445-455.  
doi: [10.1097/YCO.0000000000000453](https://doi.org/10.1097/YCO.0000000000000453).

# Eating disorders treatment online: Relapse prevention

- 15 studies
- mHealth alone or adjunct to traditional therapy showed no effects
- Significant between-group effects were only found for a text-messaging intervention for relapse prevention.

- 



Anastasiadou D, Folkvord F, Lupiañez-Villanueva F. A systematic review of mHealth interventions for the support of eating disorders. Eur Eat Disord Rev. 2018

Bulimia nervosa & Binge eating disorder:  
How likely is recovery?



# How likely is recovery? Cognitive therapy for Bulimia and Binge eating disorder (BED)

- 79 trials (many trials were of poor quality)
- Therapist-led CBT was more efficacious than wait-lists) and active comparisons (any psychotherapy)
- Therapist-led CBT was most efficacious when manualized CBT-BN or its enhanced version was delivered.
- No significant differences were observed between therapist-led CBT for bulimia nervosa and binge eating disorder and antidepressants at posttreatment
- There was no evidence that CBT was more efficacious than behavior therapy or nonspecific supportive therapies.
- Many trials were of poor quality.

Linardon J, Wade TD, de la Piedad Garcia X, Brennan L. The efficacy of cognitive-behavioral therapy for eating disorders: A systematic review and meta-analysis. *J Consult Clin Psychol.* 2017 Nov;85(11):1080-1094. doi: 10.1037/ccp0000245

# Bulimia nervosa & Binge Eating Disorder: how likely is recovery using CBT-E?

- 15 CBT-E studies (both uncontrolled trials and RCTs)
  - A large, statistically significant effect supported CBT-E as a treatment for all EDs ( $g = 1.06$ ).
  - Both uncontrolled trials ( $g = 1.26$ ) and RCTs ( $g = 0.82$ ) yielded large effects.
  - Reductions in ED behaviours and increases in BMI which were maintained at follow-up.
  - CBT-E is a successful treatment across the range of EDs.
- Dahtenburg SC, Gleaves DH, Hutchinson AD. Treatment outcome research of enhanced cognitive behaviour therapy for eating disorders: a systematic review with narrative and meta-analytic synthesis. *Eat Disord.* 2019 Sep-Oct;27(5):482-502. doi: 10.1080/10640266.2018.1560240

Wait a minute –  
what does this mean in  
practical terms?



# Bulimia nervosa & Binge Eating Disorder: how likely is recovery using CBT-E?

- 7 studies (five RCTs, 2 open trials)
- Remission post-treatment: 22% - 67%
- CBT-E is an effective treatment for some but not all individuals.

de Jong M, Schoorl M, Hoek HW. Enhanced cognitive behavioural therapy for patients with eating disorders: a systematic review. *Curr Opin Psychiatry*. 2018 Nov;31(6):436-444. doi: 10.1097/YCO.0000000000000452.

# Eating disorders treatment online: CBT for bulimia and EDNOS-BN

- 5 controlled trials, mostly good quality
- Only 1 study showed widespread benefit over waiting list controls.
- iCBT was shown to reduce eating disorder behaviours but was not found to be superior to self-help books or waiting list.

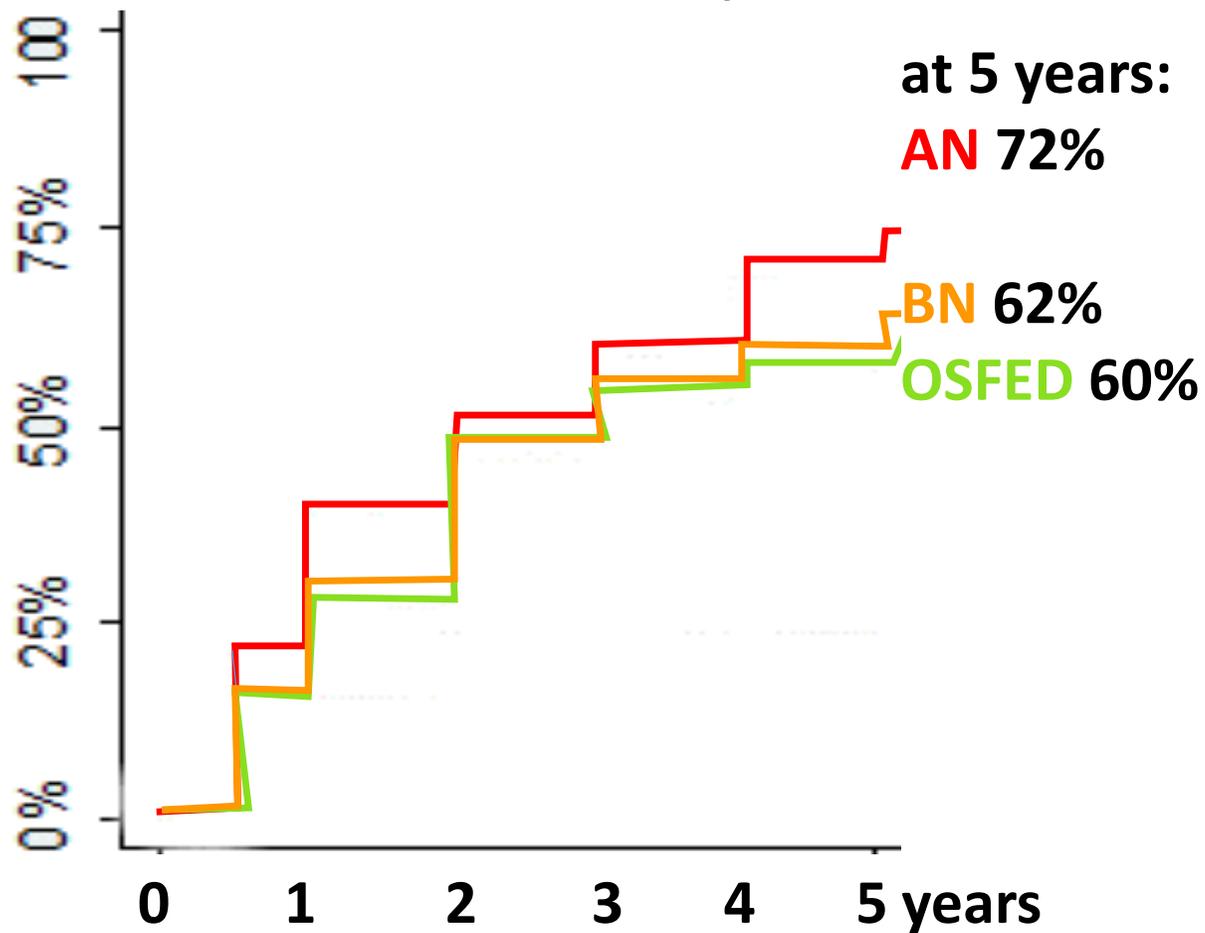
Pittock A, Hodges L, Lawrie SM. The effectiveness of internet-delivered cognitive behavioural therapy for those with bulimic symptoms: a systematic review : A review of iCBT treatment for bulimic symptoms. BMC Res Notes. 2018 Oct 22;11(1):748. doi: 10.1186/s13104-018-3843-2



# A major limitation of this research

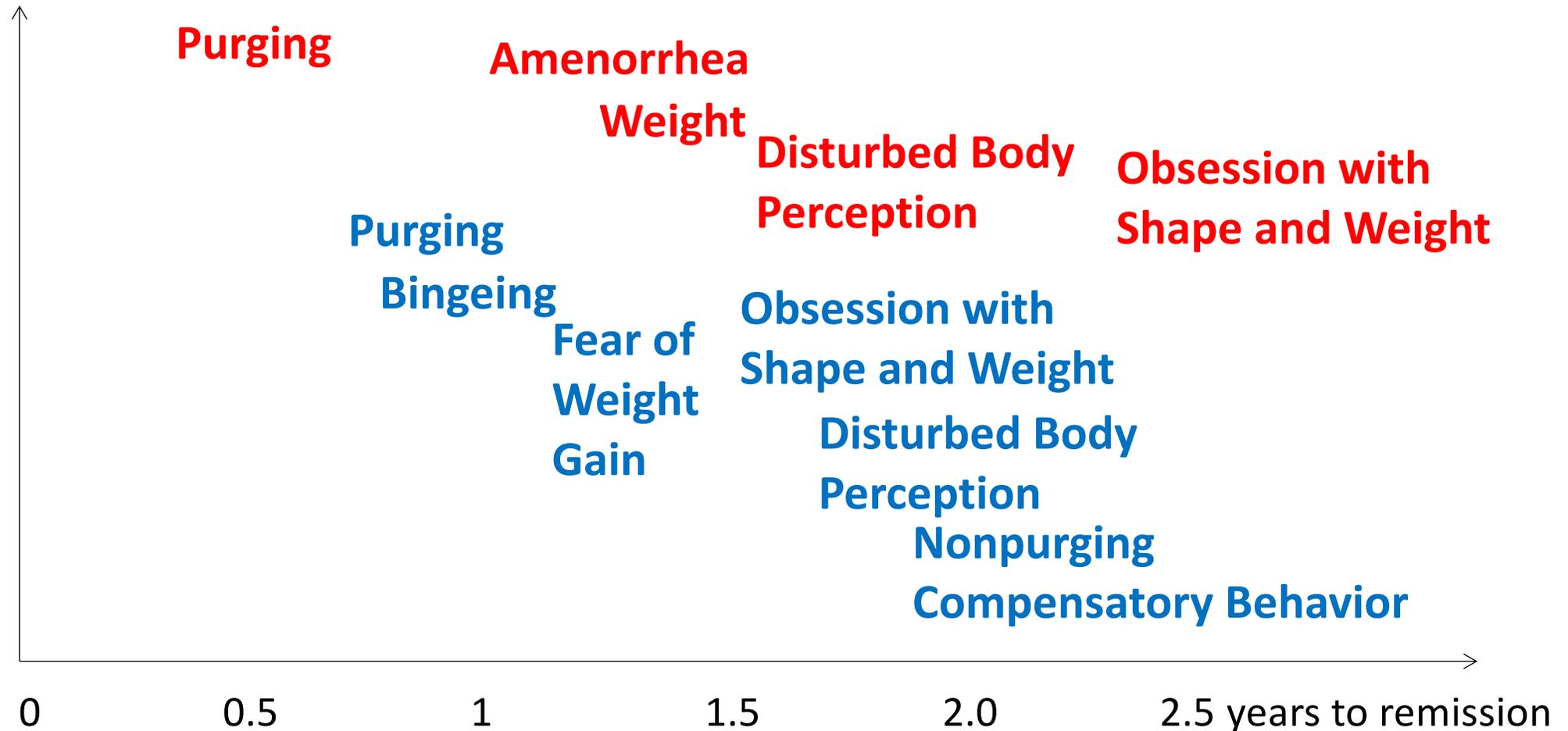
- Often limited to treatment settings (those 30% who get to treatment)
- Ignore personal experiences  
definitions of recovery

# Recovery from Eating Disorders in the Community, Women born in the 1970s

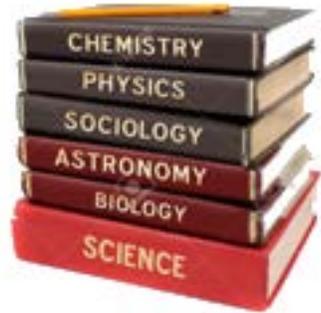


Keski-Rahkonen et al Am J Psychiatry 2007  
Keski-Rahkonen et al Psychological Medicine 2009

# How recovery actually unfolds



# How about real life outcomes? (What does life after anorexia nervosa look like?)



- Employment
- College degree
- Marriage/relationship
- Having a child



Mustelin L, Raevuori A, Bulik CM, Rissanen A, Hoek HW, Kaprio J, Keski-Rahkonen A.  
Long-term outcome in anorexia nervosa in the community. *Int J Eat Disord.* 2015 Nov;48(7):851-9.  
doi: 10.1002/eat.22415

Recovery is a journey, not a destination.  
It takes time.



# Who ultimately defines who is recovered?

- Who has the power?
- Who has the knowledge?
- Who bears the consequences?

A focus group of ten experts by experience:

I knew I was recovered  
when I no longer felt  
guilty and anxious  
about eating.

A focus group of ten experts by experience:

Weight should not be the sole focus of recovery.

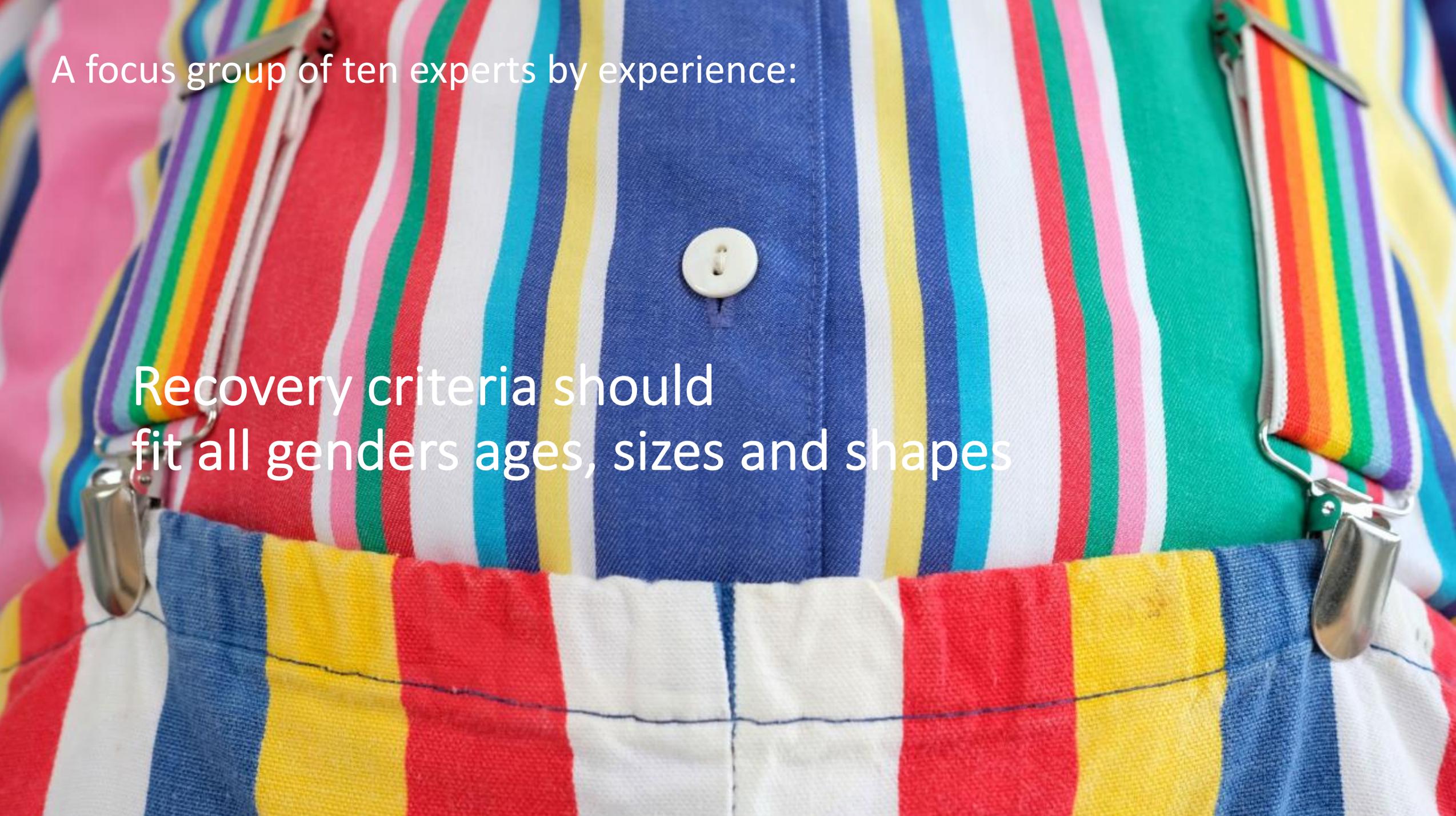
For me, recovery means freedom to live without planning and rules.

If recovery is a narrowly defined path, it feels like prison, just like my eating disorder.

# Criteria for eating disorder recovery according to recovered individuals

- A systematic review of 18 studies
- The most frequently mentioned recovery criteria were:
  - self-acceptance
  - positive relationships
  - personal growth, decrease in eating disorder behavior and cognitions, self-adaptability, resilience and autonomy

de Vos JA, LaMarre A, Radstaak M, Bijkerk CA, Bohlmeijer ET, Westerhof GJ.  
Identifying fundamental criteria for eating disorder recovery: a systematic review and qualitative meta-analysis.  
J Eat Disord. 2017 Nov 1;5:34. doi: 10.1186/s40337-017-0164-0



A focus group of ten experts by experience:

Recovery criteria should  
fit all genders ages, sizes and shapes

Thank you!

[anna.keski@gmail.com](mailto:anna.keski@gmail.com)

Photos:

Ryan McGuire

via Gratisography



# Hope for Eating Disorders: Recap

#1 How likely is it to get into treatment?

13-30%

#2 How likely is recovery after treatment?

It depends: AN 8-88%, – Bulimia & BED, 22% - 67%

#3 Which factors predict relapse and drop-out?

Lower motivation, lower BMI, the binge-purge subtype of AN

#5 What is the long-term course of eating disorders?

Favorable – at least 40-70% recover

#5 How long does recovery take on average?

Many years – about half recover by 4-7 years

#4 How do people living with eating disorders define recovery?

Symptom recovery + psychological well-being, self-adaptability and resilience

