Research and therapeutic dilemma in eating and body image disorders

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The structure of the lecture

1. About body image and the diagnosis of eating disorders in general
2. Research questions in eating and body image disorders: What difficulties can you face, when you plan a PhD in eating disorders?
3. The treatment of eating and body image disorders

(Research dilemmas are shown in yellow)

I. About body image and the diagnosis of eating disorders in general

The Nine Truths about Eating Disorders

- Truth #1: Many people with eating disorders look healthy, yet may be extremely ill.
- Truth #2: Families are not to blame, and can be the patients' and providers' best allies in treatment.
- Truth #3: An eating disorder diagnosis is a health crisis that disrupts personal and family functioning.
- Truth #4: Eating disorders are not choices, but serious biologically influenced illnesses.
- Truth #5: Eating disorders affect people of all genders, ages, races, ethnicities, body shapes and weights, sexual orientations, and socioeconomic statuses.
- Truth #6: Eating disorders carry an increased risk for both suicide and medical complications.
- Truth #7: Genes and environment play important roles in the development of eating disorders.
- Truth #8: Genes alone do not predict who will develop eating disorders.
- Truth #9: Full recovery from an eating disorder is possible. Early detection and intervention are important.

What is body image?

- **Body schema:** a „sketch" and knowledge about the body size and motor functions
- **Body image: a complex internal representation of our own body**
- Subjective experience determined by multiple factors
- Sight, visual, tactile and bodily cues, sensations
- Experiences, memories, expectations, feedbacks
- Aesthetics, attractiveness, sexual appeal
- Can be either positive or negative – however, the latter one is not equal with body image disorder
- Research questions: What can be the frequency of negative body image, in a representative sample, among men and women?
- Therapeutically: what are the main "components" of body image?

What is body image disorder?

- **A complex disorder of the experience of our own body**
- **Perception of one's own body or body parts and the information processing related to the body is distorted**
- Exclusively related to our own body
- Negatively experienced body weight, body shape, characteristics: e.g. considers her/himself fat, thin, or perceives certain body parts distortedly
- Dissatisfaction with the body
- Perfectionist body ideal: idealization of thinness and weight phobia.
- Negative body experience: anxiety, self-centred thinking.
- **The desire to change the body – including eating and body adjustment behaviors**
- Low amount of studies focus on the biological correlates

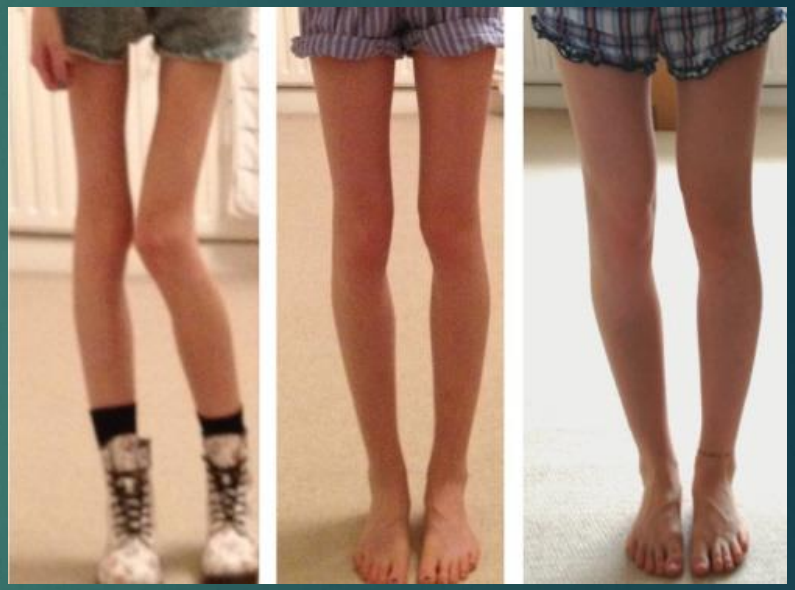
It all leads to an excessive drive to change the body

What can be the subject of this obsession?

- Body size, body shape, body weight: AN, BN
- Shape of some body parts: body dysmorphic disorder
- Muscle mass: muscle dysmorphia
- Body fat phobia: bodybuilding eating disorder
- Health: orthorexia, fitness training
- Body reshaping: plastic surgery

Why is it crucial to pay attention to eating and body image disorders?

- Non-clinical body dissatisfaction affects up to 60% of women.
- **It is a severe, complex psychiatric condition, often without any insight.**
- It is a central feature of eating disorders, but is often not treated.
- In 20 years 20% of AN, 5% of BN patients die.
- Behind 15% of plastic surgeries.
- Associated disorders: depression, anxiety, OCD, social disorders + somatic complications!
- Up to 4-5% suicide rate! → studying self-harm and suicide in EDs



How to recognize?
Diagnoses related to body image disorder (DSM-5)

Eating and/or body image concerns

What dysfunctions can be found beyond the diagnostic categories? E.g. Impulsivity, emotional instability, obsessive-compulsive traits, mood disorders, exclusively body image concerns etc.

Disorder	Eating disorder	Body image disorder
Anorexia nervosa	yes	**Yes**
Bulimia nervosa	yes	**Yes**
Binge eating disorder	yes	**Partial/lacking**
Mult-iimpulsive ED forms	yes	**Evészavar típusától függően**
Purging disorder	yes	**Yes**/partial
Avoidant/restrictive food intake disorder	yes	no
Pica	yes	no
Rumination	yes	Partial/no/BN behind?
Body dysmorphic disorder	no	**Yes**
Muscle dysmorphic disorder	Steroids, body bulider diet	**Yes**

Anorexia nervosa

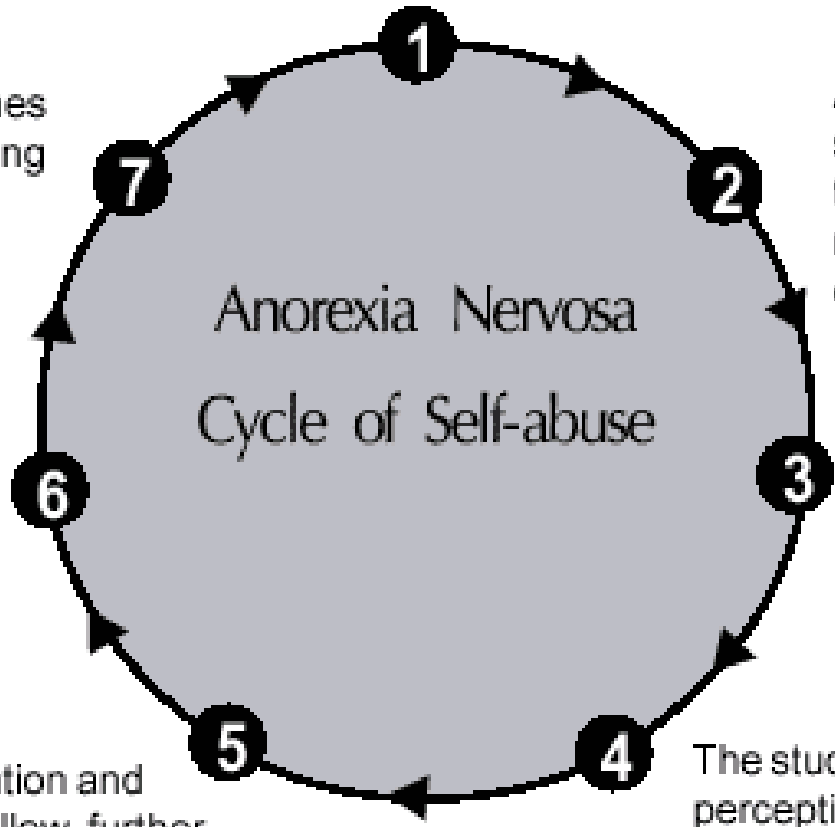
A. **Significantly low body weight**: **BMI<18.5** (ICD-10: BMI<17.5)

B. **Intense fear of gaining weight or becoming fat**, even though underweight.

C. **Body image disorder:** 1. disturbance in how one's body weight or shape is experienced; 2. extreme influence of body weight or shape on self-evaluation, or 3. persistent lack of recognition of the seriousness of the current low body weight.

- **Can be classified as restrictive or binge eating/purging type** (self-induced vomiting, misuse of laxatives, diuretics, or enemas)
- What determines the severity?
- Low amount of studies on 1. binge/purge anorexia, 2. late-onset anorexia, 3. treatment-resistent patients

Eating Disorders: a vicious circle of self-abuse



1. Self-starvation can lead to obsessive thinking and compulsive behaviours centred on food and eating.
2. As less is eaten, the stomach shrinks and the student feels full more quickly when eating.
3. The resulting loss of muscle causes the stomach to protrude.
4. The student's perception, fantasies and fears of fatness are now reinforced.
5. Fluid retention and bloating follow, further reinforcing these fears.
6. The student's already distorted body image worsens.
7. As the student becomes more fixated on refusing food, in attempts to "correct" his/her body image, the disorder worsens.

Bulimia nervosa

A. **Recurrent episodes of binge eating:**

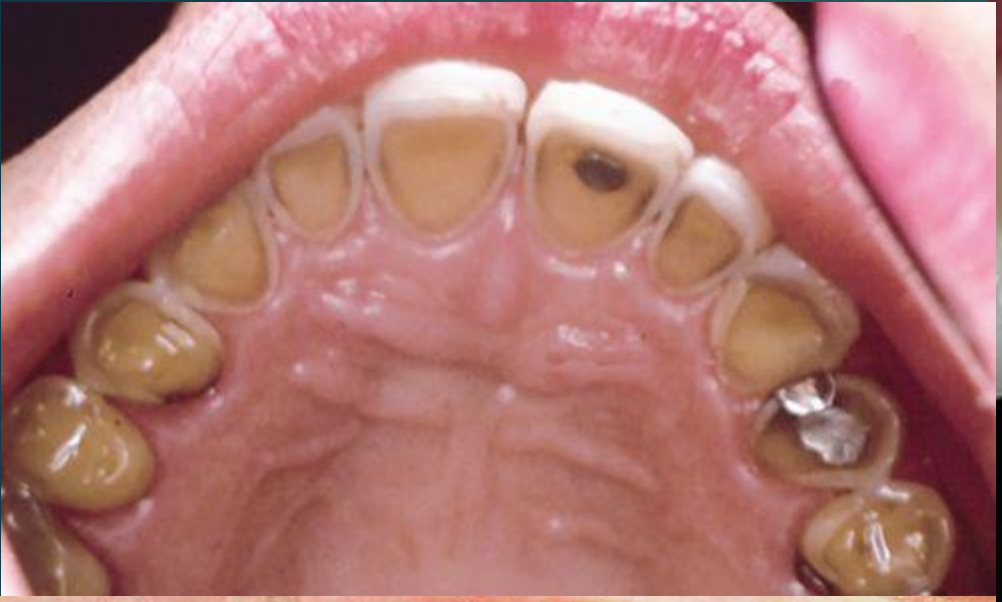
1. eating, in a **discrete period** of time, an amount of food that is definitely larger than most people would eat
2. a sense of **lack of control** over eating

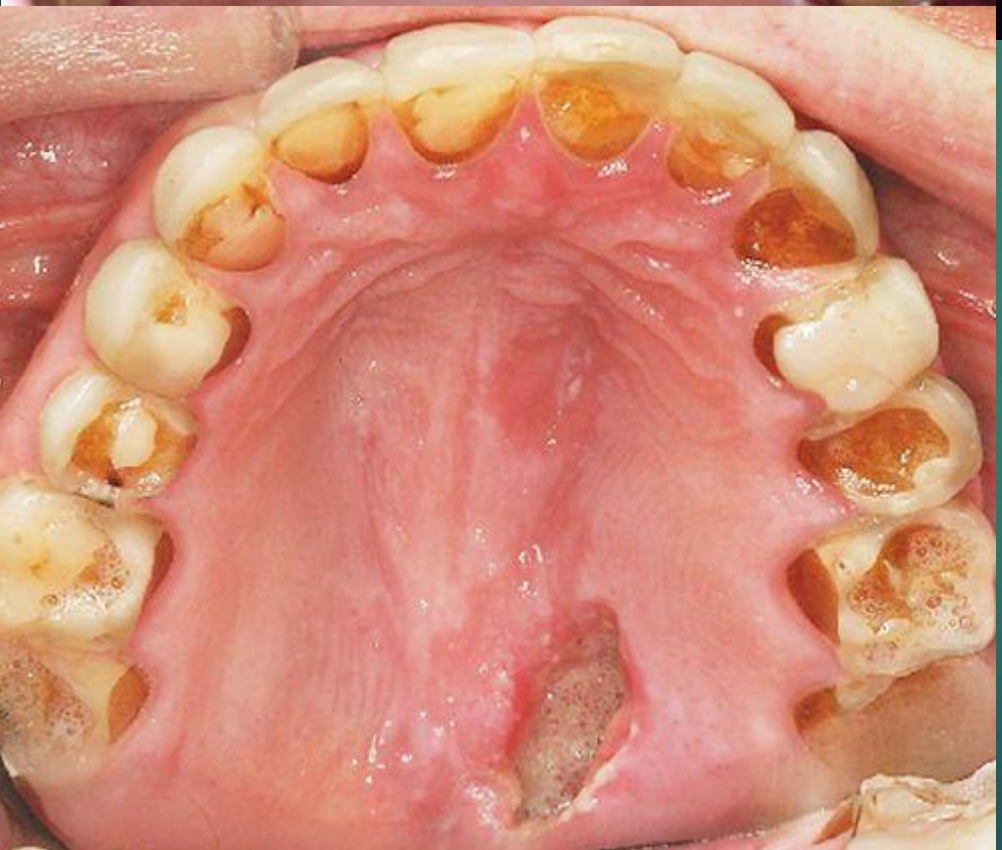
B. Recurrent **inappropriate compensatory behavior:** self-induced vomiting; misuse of laxatives, diuretics, enoas, or other medications; fasting; or excessive exercise.

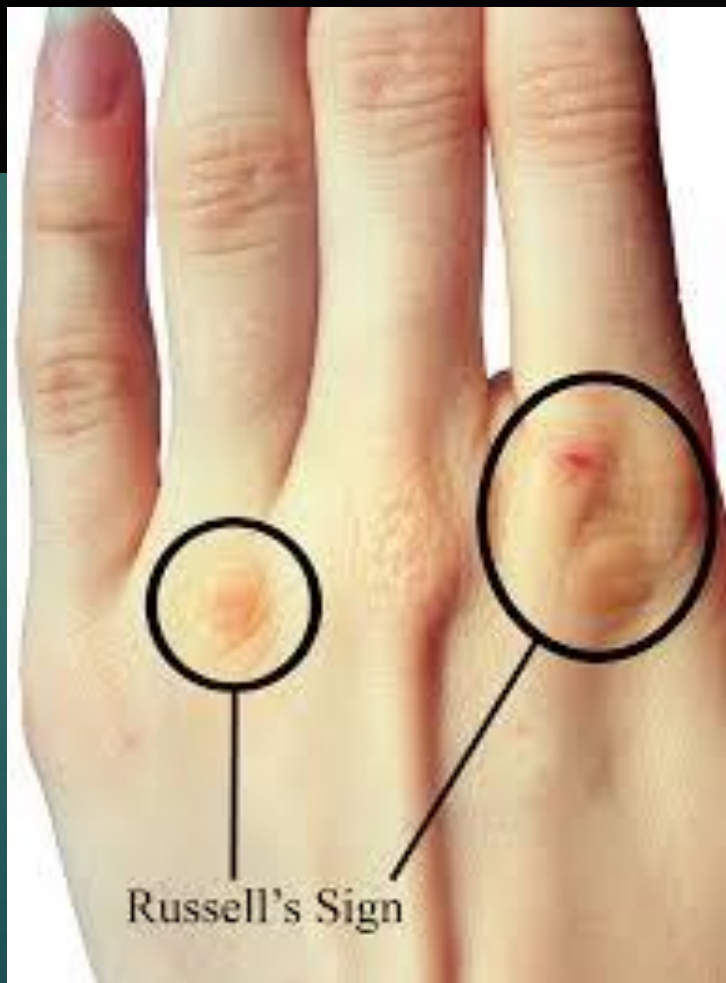
C. **At least once a week for 3 months.**

D. **Self-evaluation is unduly influenced by body shape and weight.**

- Fewer information about the somatic complications of bulimia.
- Targeted prevention would be required, because of the patients' hiding behaviors.





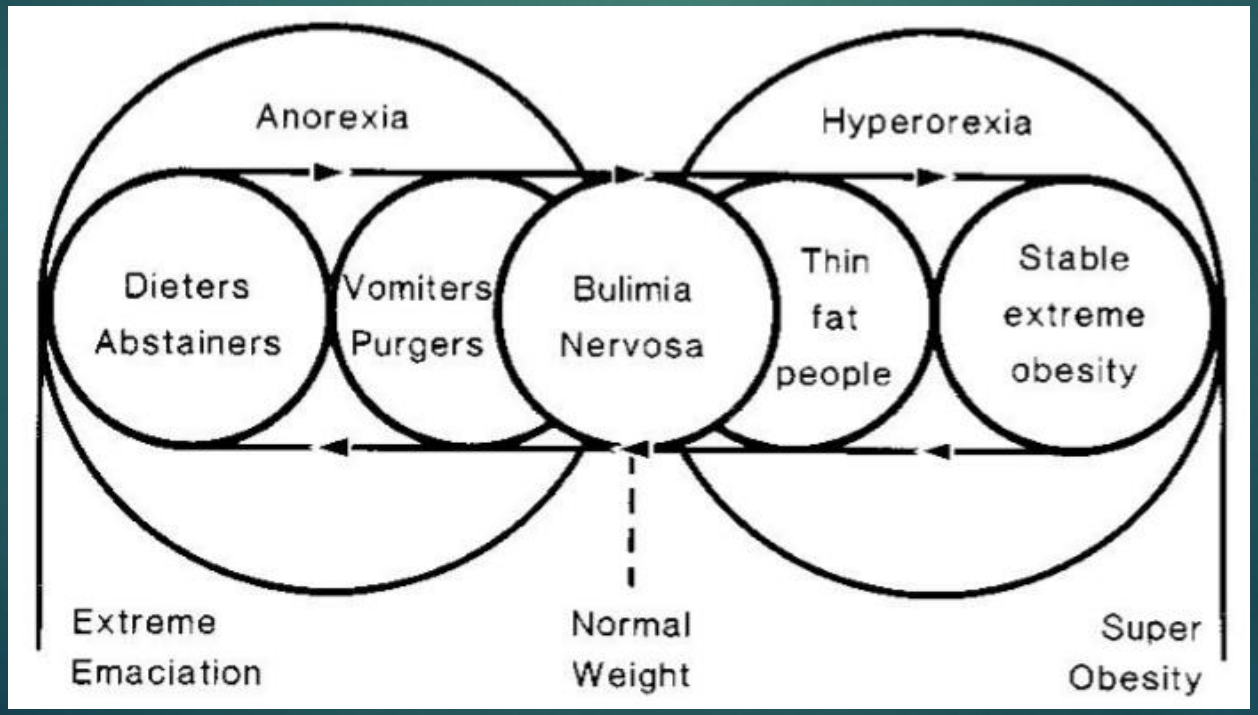

Russell's Sign

Binge Eating Disorder

- **Recurrent episodes of binge eating at least once a week for at least three months.**
- What is the difference between a subjective and an objective binge?
- **Eating significantly more food in a short period** of time than most people would eat under similar circumstances
- The episodes are marked by **lacking control**.
- **No compensatory behaviour** + no BDD.
- Increased risk for obesity
- The most common eating disorder in the US
- 30% to 40% of those seeking weight loss treatments can be clinically diagnosed with BED.
- It would be worth investigating in men, because it is the only eating disorder that is almost equally common in both sexes (2.5-3.5%).

Transition between disorders

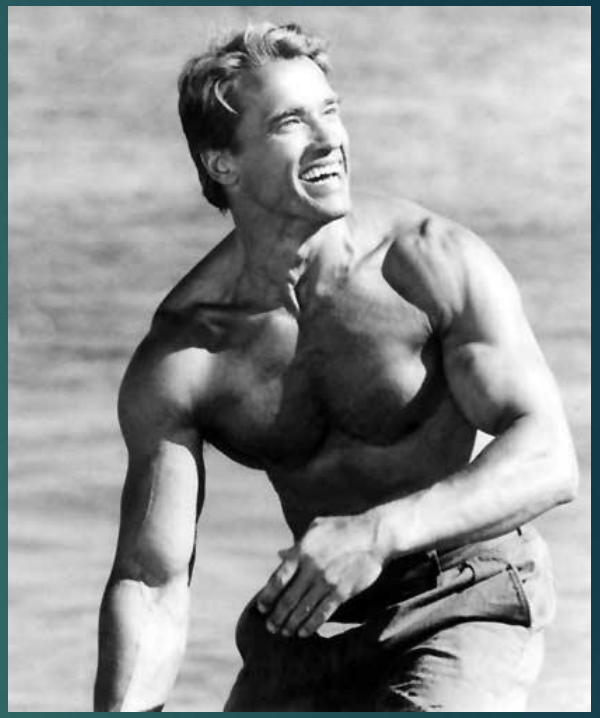
- A central dimension: **restrictive or impulsive** nature of the symptomology it is extremely important to take into account in beyond the diagnosis, because this determines the formation of symptoms and is related to personality functioning as well as to treatment outcomes.
- What is the patient's anamnesis with the eating symptomology?



Body dysmorphic disorder

- **The individual is preoccupied with 1 or more perceived defects or flaws in physical appearance that are not observable by others**
- **Performs repetitive behaviors** (e.g., mirror checking, excessive grooming, skin picking, or reassurance seeking) **or mental acts** (e.g., comparing his or her appearance with that of others) **in response to the appearance concerns**
- **Distress or impairment** in social, occupational functioning
- Prevalence: 2.4%; OCD spectrum, comorbid with affective, anxiety, personality and eating disorders.
- No (Hungarian) manual to cope with/intervene BDD.

Muscle dysmorphic disorder



Obsessive-compulsive preoccupation with muscularity, characterized by:

1. Body image disorder:

despite strong muscles they feel skinny

2. Phobia from being thin

3. Compulsive body-building

4. Anabolic steroid abuse

- Endogenous testosterone production may decrease!

5. Impaired social and intimate relationships

No guideline in MDD!

II. Research questions in eating and body image disorders

There is an abundance of Hungarian PhD-s in eating disorders:

- 2004 Szumska Irena: Evészavarok prevalenciája fiatal magyar nők körében - Pszichoszociális háttérjellemzők, komorbiditás más mentális problémákkal
- 2007 Lukács Liza: Az evészavarok pszichopatológiai és patogenetikai háttértényezőinek vizsgálata egészségpszichológiai megközelítésben
- 2007 Pászthy Bea: A gyermek- és serdülőkori anorexia nervosa pszichoszomatikus jellemzői
- 2007 Tölgyes Tamás: Evészavarok és evészavar-tünetek epidemiológiája. Evészavarban szenvedő betegek személyiségvizsgálata kognitív megközelítésben pszichometriai módszerekkel
- 2010 Karkus Zsolt: A testi fejlődés mintázata és a szocializálódás összefüggés-elemzése
- 2010 Szili Katalin: Az érzet sorsa. A modern pszichoanalízis hozzájárulása a pszichodinamikus mozgás- és táncterápia testtudati munkájához
- 2011 Krizbai Tímea: Az evészavarok egyes epidemiológiai és pszichológiai vonatkozásai, különös tekintettel az önéletrajzi emlékezetere
- 2011 Mayer Ágnes Andrea: Amputáltak testtudata és állásbiztonsága
- 2012 Czeglédi Edit: A felnőttkori elhízás pszichológiai korrelátumai és intervenciós lehetőségei
- 2012 Csenki Laura: Érzelemszabályozás a serdülőkori anorexia nervosaban
- 2012 Petrika Erzsébet: Rendszeres testedzés hatása a mentális egészségre és az életminőségre fiatal felnőtteknél: depresszív tünetek, stressz és stresszkezelés empirikus vizsgálata
- 2013 Babusa Bernadett: Az izomdiszmorfia vizsgálata fokozott kockázatú hazai populációkon
- 2013 Fehér Pálma: Testképek és testi dialógusok - Az analitikus testpszichoterápia fejlődése a német pszichoanalitikus irányzatok gyakorlatának tükrében

- 2013 Lukács-Márton Réka Anna: Speciális csoportok testképzavarai, különös tekintettel a szépségiparban dolgozókra és várandós kismamákra
- 2014 Soós Mihály: Élelmiszer-fogyasztói magatartás és a testtömeg menedzselés összefüggései
- 2014 Varga Márta: Az orthorexia nervosa korrelátumai, különös tekintettel az evészavarokra és a kényszeres tünetekre
- 2015 Berczik Anna Krisztina: A testedzésfüggőség és az evészavarok elterjedtsége, pszichológiai korrelátumai, valamint egymással való kapcsolata serdülők és felnőttek körében
- 2015 Látos Melinda: A testkép szerepe és a transzplantált szerv pszichológiai integrációjának jelentősége a veseátültetés sikerességében
- 2016 Menczel Zsuzsanna: A testedzésfüggőség viselkedéstani és pszichológiai kontextusa
- 2017 Kohlné Papp Ildikó: Az obezitás pszichológiai jellemzői: szociokulturális hatások, a testsúlycsökkentés és súlymegtartás pszichoterápiás lehetőségei
- 2018 Kövesdi Andrea: Reziliencia a serdülőkori anorexia nervosaban
- 2018 Pukánszky Judit: A testképet meghatározó szociokulturális tényezők és kötődési jellemzők vizsgálata egyetemista nők körében
- 2019 Szalai Tamás: A kötődés szerepének vizsgálata evészavarokban - Komplex modellezés és terápiás implikációk
- **In progress:** Bogár Nikolett, Cserép Melinda, Galiger-Dobos Kitty, Leindler Milán, Ludányi Balázs stb.

Fundamental research questions and dilemmas

1. Are we including diagnosed patients in our study, or are we working with a „risk group”?

- Difficult to reach, a lot of time, low response rates, but a real result.
- With risk groups we get quicker a larger sample, probably with a larger effect size, but they do not show the real psychopathological process – just the correlation of survey items.

2. How many subgroups do we work with?

- Easier with a patient + a nicely adjusted sine morbo control group.
- Howeve3, it is more informative to compare ED subgroups to each other.

3. Are we working with a cross-sectional or longitudinal arrangement?

- Longitudinals may not fit into the time frame of a PhD, except CTs of short intervnentions, but there is a huge need for prospective studies.
- Have we found a real risk / protective factor or just a correlation?
- Follow-up of certain patients/groups.

Fundamental research questions and dilemmas

4. On what „level" of the symptomology does the research focus?

- Neurobiological → neuropsychological → psychopathological processes → psychiatric symptoms.

5. Do we want to investigate the "history" or consequences of the disorder?

- It is difficult to decide because of circular causality.
- But take into account: complications, family reactions cannot really be distinguished from the starting pathological processes in a cross-sectional study.

6. What model do we work with?

- E.g. developmental psychopathology models and study design → multifinality.
- Path analysis models.

7. Should we conduct interventions?

- Testing the efficacy of interventions, pharmaco- and psychotherapies (but not only CBT), prevention programs would be especially important.

8. The big „WHY?” The Etiopathogenesis of Eating Disordes

Eating disorders are complex psychosomatic disorders:

- Multifactorial aetiology + circular causality
- Cause of effect?
- A major bias of ED studies is to stand one putative factor into the centre, without mentioning others.

Multidimensional models differentiate:

- predisposing,
- precipitating, and
- maintaining factors.
- Almost all etiological factors can be examined, but while predisposing factors are overrepresented in theses, triggers and maintaining factors are more important therapeutically.

Predisposing factors

Individual risk factors:

- biological (genetics, neurotransmitters, etc.)
- premorbid obesity
- psychological (disorders of self perception, special personality characteristics, sexual of physical abuse)

Family risk factors:

- ED, diet of family members, affective disorder or alcoholism in the family, special family relationships, magnification of cultural values

Sociocultural risk factors:

- cultural norms, slimness ideal vs. Path analysis!

Precipitating factors:

- Different stressors which cause dieting: life events

Maintaining factors:

- Cognitive and family reinforcements, effects of malnutrition
- Lack of social skills, isolation, depression, change in the family structure etc.

+ One thing studies do not count with is those factors that can lead to a relapse.

9. Background mechanisms

- **In Hungary, ivestigating eating and body image disorders with imaging procedures is a neglected and exciting field.**
- **USA: large-scale genetic studies.**

Symptoms	Brain region
Body image disorder	Parietal cortex
Spatial deficits	Parietal and frontal lobe
Increased anxiety	Frontal and limbic structures
Perseverative behavior	Frontal lobe, striatum
Agitation	Basal ganglia
Increased sense of reward	Nucleus accumbens
Impaired executive functions	Frontal lobe

10. Concerns about measures and scales

- A general problems of ED questionnaires: lacking insight
- No standard eating and body image disorder interview has been developed.
- Body image screening devices are rare
- Validation: e.g. the Hungarian validation of the EDI 2-3 are still missing
- Preparation of questionnaires in binge eating disorder, multi-impulsivity, ARFID
- Heterogeneous questionnaires – an example: **the SCOFF**, which indicates the risk of eating disorder from 2 point with 78-100% sensitivity, bit has a low Cronbach's alpha.

Do you make yourself Sick because you feel uncomfortably full?	**Yes**	**No**
Do you worry you have lost Control over how much you eat?	Yes	No
Have you recently lost more than One stone (5 kg) in a 3 month period?	Yes	No
Do you believe yourself to be Fat when others say you are too thin?	Yes	No
Would you say that Food dominates your life?	Yes	No

Other reasearch issues

11. Bio-psycho-social characteristics and dysfunctions in certain patient groups:

- Family, personality, attachment, psychopathological processes, background dimensions, symptoms, etc. Vs. The descriptive dimension

12. Risk and protective factors:

- It can really be examined in longitudinal section
- Hardly any research on protective factors, which would be important in prevention
- Statistical data vs. Individual vulnerability and resilience.

13. Integrative models: can highlight the functioning of the complex symptomology as well as intervention points.

14. Specialized interventions: such as multimodal treatments.

Please, evaluate the lecture.
Many thanks.

3. The treatment of eating and body imge disorders

1. **Always work according to guidelines.**
2. **Apply a stepped care:** self-help, outpatient psychotherapy, combined with pharmacotherapy, inpatient
3. **It is good to know, the „why", but rather try to save a life.**
4. **Work with triggers and maintaining factors!**

1. Always check the health risk first

Measure weight, heart rate and go to a lab test!

- Somatic complications, body mass index.
- Illness insight, motivation, previous treatments.
- Comorbid disorders, suicidal ideation, abuse
- Family characteristics

Inpatient treatment:

- BMI below 14, weight loss above 1 kg per week, systolic blood pressure below 80, body temperature below 35.5 C, heart rate below 45, arrhythmia, low potassium, diabetes

Psychiatric care:

- Suicidal ideation, major clinical disorders, psychosis
- Investigationg the predictors of somatic complications is important
- It would worth to compare the psychopathological and family characteristics of **invididuals in outpatient and inpatient treatments**

ED guideline: Hay et al. 2014

	Psychiatric admission indicated[a]	Medical admission indicated[a]
Weight	Body mass index (BMI) <14	BMI <12
Rapid weight loss	1kg per week over several weeks or grossly inadequate nutritional intake (<100kcal daily) or continued weight loss despite community treatment	
Systolic BP	<90 mmHg	<80 mmHg
Postural BP	>10 mmHg drop with standing	>20 mmHg drop with standing
Heart rate		≤40 bpm or > 120 bpm or postural tachycardia > 20/min
Temperature	<35.5°c or cold/blue extremities	<35°c or cold/blue extremities
12-lead ECG		Any arrhythmia including QTc prolongation, non-specific ST or T-wave changes including inversion or biphasic waves
Blood sugar	Below normal range*	< 2.5 mmol/L
Sodium	<130 mmol/L*	<125 mmol/L
Potassium	Below normal range*	<3.0 mmol/L
Magnesium		Below normal range*
Phosphate		Below normal range*

2. What are the triggers?

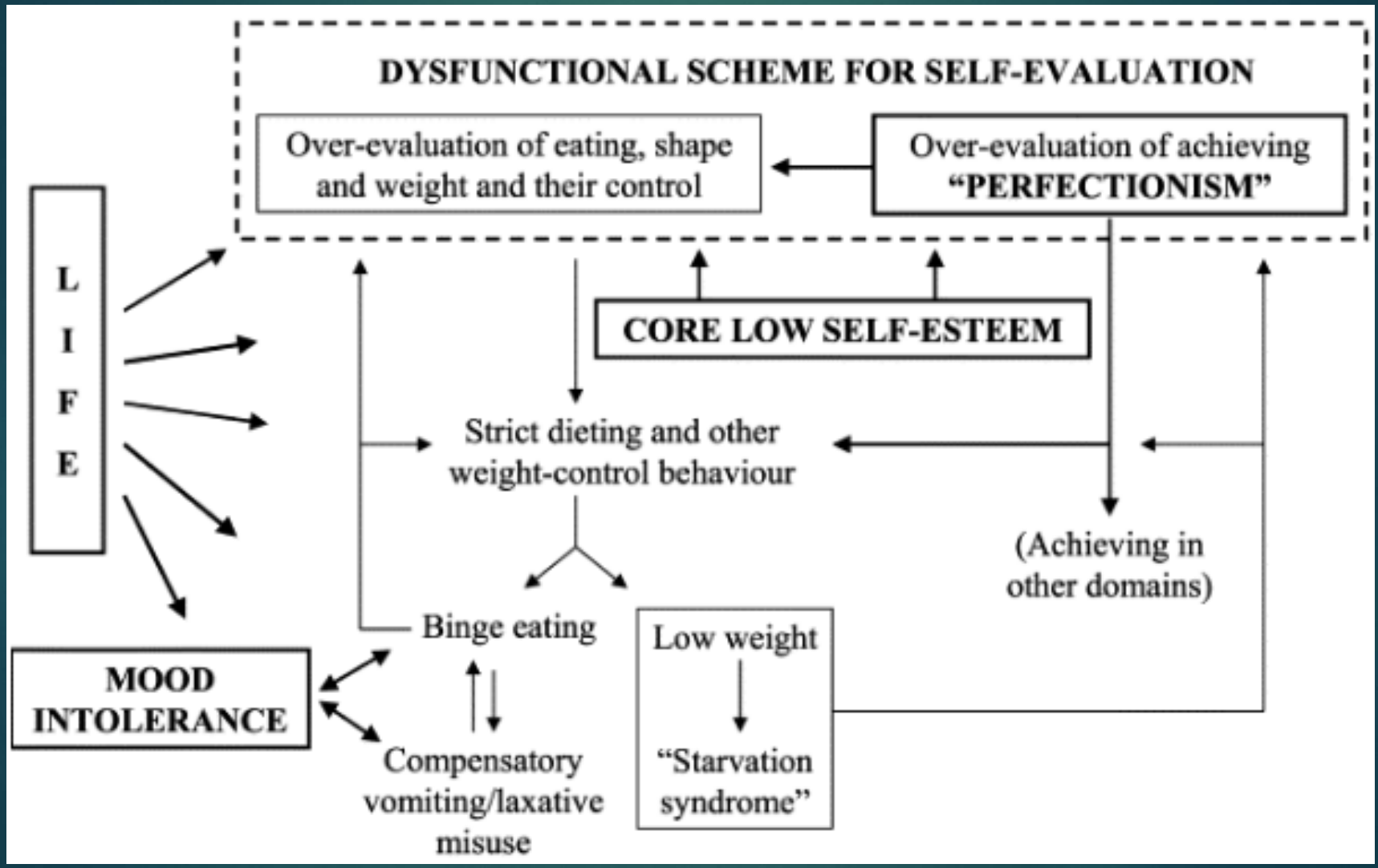
Clinical example: eating diary and body checking behavior

Day ..... Monday ____ Date ____ March 19 ____

Time	Food and drink consumed	Place	*	v/l	Context and comments
6.30	Glass water	Kitchen			Feeling good this morning
7:10	Banana Bowl cheerios Skim milk Black coffee	Cafe			Normal breakfast
10:00	Apple Cereal bar	Desk at work			Didn't want to have this as having big lunch, but wanted to stick to plan.
1:00	Greek salad with feta cheese and dressing Roll water	Cafe			Decided that I would eat 3/4 of salad beforehand. Was pretty nervous the whole time, but was able to eat it and keep it down!
3:00	Yogurt	Desk at work			Thought about not eating this, but didn't want a huge gap.
6:30	Salmon (small piece) Rice (1/2 cup) spinach	Kitchen			Feeling ok.
9:30	Ice cream cone with hot fudge	Ice cream parlor with friends			Planned to have 2 scoops and was fine! Really enjoyed getting this with my friends as I usually don't go.

3. What are the individual maintaining factors?

The transdiagnostic model of eating disorders (Faibrurn et al, 2008).



4. Elimination of maintainig factors

1. Attention:
Attention is constricted to myself ←→conscious presence
I only pay attention to the object of dissatisfaction ←→ here's a whole human being

2. Comparison: avoid selective comparison
3. Avoidance: prevent hiding, e.g. big dresses and missed programs
4. Rituals: finish body-checking
5. Thinking: correcting negative sentences about myself
6. Moods: observing and controlling the effects of negative moods
7. Social factors: conflicts, activity and skill development

5. System-approach and relationship factors

System-approach: Relational meaning and function of symptoms in homeostasis

Characteristics of psychosomatic families:

Enmeshment

Overprotection

Rigidity

Lack of conflict resolution

Involving the child in parental conflict

Communication:

Indirect, hidden

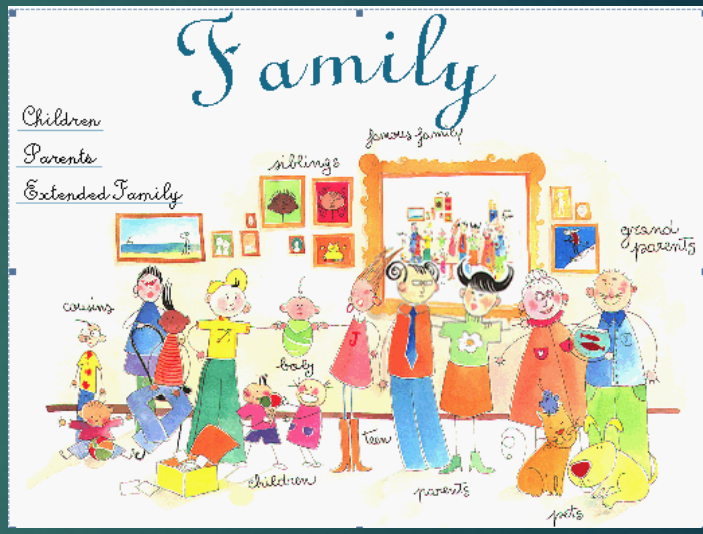
Ambivalent, flawed

Double bind

Invalidate each other's messages

"Introducing a child,,

v.s. No Hungarian FBT RCT!



For Family and Friends

- You didn't CAUSE it.
- You can't CONTROL it.
- You can't CURE it.
- You can learn how NOT to CONTRIBUTE to it.
- You need to learn how to COPE with it.
- Take CARE of yourself.

- Avoid PANIC. It prohibits clear thinking and calm reactions.
- Recovery is a PROCESS. Two steps forward and one backwards.
- PROGRESS, not PERFECTION,is the goal. PATIENCE is critical.

- RESPOND instead of REACT.
- REMEMBER to listen.
- REFLECT and REASON before you speak.
- RECOVERY is a journey, a long ROAD that may include RELAPSE.
- REACH out to others for love and support.

Thank you for your kind attention!

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