Gender in the treatment of obesity – Do Women and Men report different cognitive-behavioral factors that promote or impede long-term weight loss maintenance?

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Do Women and Men report different cognitive-behavioral factors that promote or impede long-term weight loss maintenance?

- short-term weight loss vs. long-term weight loss maintenance
  de Vos et al., 2016; de Zwaan et al., 2008; Holzapfel et al., 2014; Jeffery et al., 2000; Wing & Hill, 2001

**long-term weight loss maintenance**
- **maintainer**
  min. 5-10% weight loss
  min. 1 year maintenance

**no successful weight loss or weight loss maintenance**
- **regainer**
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- Psychological factors that promote or impede long-term weight loss maintenance
  Elfhag & Rössner, 2005; Greaves, Poltawski, Garside & Briscoe, 2017; Green, Larkin & Sullivan, 2009; Metzgar, Preston, Miller & Nickols-Richardson, 2015; Ohsiek & Williams, 2011; Teixeira et al., 2005

- Flexible (not rigid) control behavior
  Self monitoring
  Active coping strategies
  High self-efficacy
  Intrinsic motivation

- Extrinsic motivation (e.g. medical reasons)
  Weight cycling
  Emotional eating
  Body dissatisfaction
  Dichotomous thinking

...
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- gender differences in obesity
  - prevalence Mensink et al., 2013; Schienkiewitz et al., 2017
  - psychosocial consequences Giel et al., 2012; Heo et al., 2006
  - eating behavior Kiefer, Rathmanner & Kunze, 2005
  - motivation to lose weight Robertson et al., 2014; Tsai et al., 2016
  - goal setting Dutton et al., 2010
  - preferred weight loss programs Crane et al. 2017; Ferrand et al., 2008
Research Question

Do Women and Men report different cognitive-behavioral factors that promote or impede long-term weight loss maintenance?
Method

- December 2017 – January 2018 @ Bamberg
- 8 semi-structured focus groups (n = 30)
- recruitment via newspaper and internet announcements
Method – Participants \((n = 30)\)

<table>
<thead>
<tr>
<th>Group</th>
<th>Participants ((n))</th>
<th>Age (\pm)</th>
<th>Body Mass Index Before WL (\pm)</th>
<th>Body Mass Index After WL (\pm)</th>
<th>Weight Loss (\geq 1) Year ((n))</th>
<th>Weight Loss (%): (\pm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>12</td>
<td>54.40(\pm)18.40</td>
<td>30.16(\pm)3.55</td>
<td>23.97(\pm)3.49</td>
<td>10</td>
<td>20.87(\pm)10.09</td>
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<tr>
<td>Group 2</td>
<td>8</td>
<td>40.50(\pm)16.13</td>
<td>33.44(\pm)5.30</td>
<td>26.97(\pm)2.72</td>
<td>6</td>
<td>18.88(\pm)5.57</td>
</tr>
<tr>
<td>Group 3</td>
<td>6</td>
<td>37.33(\pm)12.97</td>
<td>38.49(\pm)10.88</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Group 4</td>
<td>4</td>
<td>32.75(\pm)15.37</td>
<td>32.29(\pm)8.69</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Method – interview guide

- subjective psychological factors that impact weight development

„How did you successfully lose weight and maintained it?“
„What distinguishes you from people that do not successfully lose weight?“
„What were the biggest barriers?“

„Why do you find it so hard to lose weight or maintain your weight loss?“
„What strategies are working well for you?“

motives goal setting expert knowledge
former experiences with weight reduction
self-regulation self-efficacy coping strategies
social support weight loss strategies
Method – Data analysis

- Qualitative Content Analysis Kuckartz, 2016; Mayring, 2015
  - Identification of relevant psychological aspects: theory based and interpretative based on data
  - Outcomes: cognitive behavioral factors that promote or impede weight loss and weight maintenance; gender specific (female vs. male) and group specific (maintainer vs. regainer)
Results – self concept

- social downwards comparison to improve self concept
- change of psychological needs (e.g. decreased enjoyment of food, increased awareness of mindfulness, body signals)

„But it’s also like that, when you suddenly lose weight you get another, um, world view [...] So now I notice so many fat people [...] and then I think [...] that’s terrible.“
Results – self concept

- social downwards comparison to improve self concept
- change of psychological needs (e.g. decreased enjoyment of food, increased awareness of mindfulness, body signals)

- body is perceived as an opponent that needs to be defeated

„I do not want to lose: I have no desire to lose. Somehow, that’s my motivation, that I just don’t want to lose to myself, um.“
Results – self concept

- psychological tension: incompatibility of the new behaviors with the fulfilment of psychological needs
- low self-efficacy towards overriding existing habits
- external attribution

- Psychological tension
- low self-efficacy
- distorted self-perception
Results – self concept

- Psychological tension
- low self-efficacy
- distorted self-perception

“[She] said, she will send me straight to the doctor um, and I said „nonsense“. But in retrospectiv, when I look at pictures. You could indeed see that I needed to go. That’s something where one swallows [...] „Crazy, I perceived myself quite differently [...]“
Results – self-regulation

- rigid avoidance of situations and foods that trigger loss of control
- rigid control behavior and waiving is perceived as relieving and helpful

„I really did give up sweets completely. Just because I cannot handle them. [...] I can’t allow myself to have this stuff at home. [...] That was my biggest obstacle [...]. That was hard for me. But I don’t mind it anymore.”
Results – self-regulation

- **trade off short-term (pleasure orientated) against long-term psychological and physiological needs (long-term behavior change)**
- **compensatory behavior (e.g. physical exercise, calorie deficit)**
- **self-determined „loss of control“**

„At the christmas market I deliberately decide for the sausage and the mulled wine. But I also deliberately decide against, I don’t know, the Kebab, or something.

„If I want to eat something. I eat something. But overall, the daily energy balance must be right again.“
Results – self-regulation

- need-conflict prevents long-term self-regulation (planning ahead vs. spontaneous decisions)
- short-term waiving leads to loss of control
- self-regulation is perceived as exhausting
- dichotomous thinking style: no successful coping strategies

- external factors influence impulse control
- long-term regulation strategies do not exist
- dichotomous thinking style
Results – self-regulation

„Hey, you have been doing well for one week or one month. Well, you’ve earned your pizza now. […] and that’s the crux […].“

„I mean I don’t drink a lot of alcohol, but if I drink […] then it’s over. So if I drank two beers and there are chips, then... I eat the chips. In this situation it’s really hard to control yourself. […] and if I have already sinned, I think „Ah come on now... now you can do that again.“
Results – social environment

- gap between self-perception and awareness of others leads to emotional reactions
- importance of recognition from others
- willingness to modify contact behavior or change circle of friends

- modified drinking behavior is challenging in social situations
- Solution: activities that don’t imply eating or drinking (compromise)
Results – social environment

- gap between self-perception and awareness of others leads to emotional reactions
- reinforcement of dysfunctional behavior impacts motivation and staying power to lose weight

- tolerance of overweight from others decreases motivation to change behavior
- reinforcement of dysfunctional behavior (e.g. drinking behavior)
- no efficient coping strategies
Results – social environment

„If I am by myself, then everything is okay. But when people say: Oh come on, you can eat one more piece of cake. Then I think: why not.“

„So that’s also a social problem. It is much easier for me to eat healthy when I’m alone than with someone else. [...] Honestly, I find the people quite uncomfortable that say „I can’t come because I’m on a diet right now“.
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**Discussion**

rigid control behavior, willingness to give up food and social relations, driven by their psychological needs; social support

driven by long-term caloric-deficit, willingness to compensate, trade-off, autonomy
Limitations and strengths

− limited generalization
− retrospective statements may lead to distortions
− analyzed sample size of regainers is smaller than maintainers
− time criterion (min. 1 year weight maintenance) fulfilled by only 80% of maintainers

− heterogeneous sociodemographic sample size = wide experience spectrum
− relative high proportion of men in sample size
− individual perspectives and detailed understanding of underlying processes
Further research and implications

- findings should be confirmed in a quantitative study-design with a bigger sample size
- currently running: follow-up of weight development of participants

➢ Gender could be a promising approach to individualize interventions and therefore promote long term weight loss maintenance.
References


Thank you for your attention!