



**9TH WORLD CONGRESS
OF BEHAVIOURAL AND
COGNITIVE THERAPIES**

17th-20th July 2019 | Berlin

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

C. van der Velde¹, S. Schroeder¹, M. Haun¹, C. Grillmeyer¹, S. Jongen², S. Herpertz², S. Steins-Löber¹, J. Wolstein³

¹ Department of Clinical Psychology and Psychotherapy, Otto-Friedrich-University Bamberg, Germany

² LWL University Hospital, Ruhr-University Bochum, Department of Psychosomatic Medicine and Psychotherapy, Germany

³ Chair of Psychopathology, Otto-Friedrich-University Bamberg, Bamberg, Germany

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

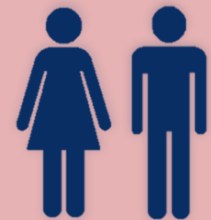
long-term weight loss maintenance
= **maintainer**

min. 5-10% weight loss
min. 1 year maintenance



no successful weight loss or weight loss
maintenance

= **regainer**



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

– 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



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

– 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 ($n = 30$)

$n = 12$

age: 54.40 ± 18.40

body mass index before WL: 30.16 ± 3.55

body mass index after WL: 23.97 ± 3.49

weight loss ≥ 1 year : $n = 10$

weight loss (%): 20.87 ± 10.09



$n = 8$

age: 40.50 ± 16.13

body mass index before WL: 33.44 ± 5.30

body mass index after WL: 26.97 ± 2.72

weight loss ≥ 1 year : $n = 6$

weight loss (%): 18.88 ± 5.57



$n = 6$

age: 37.33 ± 12.97

body mass index: 38.49 ± 10.88

weight loss attempts ≥ 6 : $n = 4$



$n = 4$

age: 32.75 ± 15.37

body mass index: 32.29 ± 8.69

weight loss attempts ≥ 6 : $n = 2$



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 loose 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

„[She] said, she will send me straight to the doctor um, and I said „nonsense“.
But in retrospect, 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 [...]“

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



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

„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.“

- 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“



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“.



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

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



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

- Crane, M. M., Jeffery, R. W., & Sherwood, N. E. (2017). Exploring gender differences in a randomized trial of weight loss maintenance. *American journal of men's health*, 11(2), 369-375.
- de Vos, B. C., Runhaar, J., van Middelkoop, M., Krul, M., & Bierma-Zeinstra, S. M. (2016). Long-term effects of a randomized, controlled, tailor-made weight-loss intervention in primary care on the health and lifestyle of overweight and obese women. *The American journal of clinical nutrition*, 104(1), 33-40.
- De Zwaan, M., Hilbert, A., Herpertz, S., Zipfel, S., Beutel, M., Gefeller, O., & Muehlhans, B. (2008). Weight loss maintenance in a population-based sample of German adults. *Obesity*, 16(11), 2535-2540.
- Dutton, G. R., Perri, M. G., Dancer-Brown, M., Goble, M., & Van Vesse, N. (2010). Weight loss goals of patients in a health maintenance organization. *Eating behaviors*, 11(2), 74-78.
- Elfhag, K., & Rössner, S. (2005). Who succeeds in maintaining weight loss? A conceptual review of factors associated with weight loss maintenance and weight regain. *Obesity reviews*, 6(1), 67-85.
- Ferrand, C., Perrin, C., & Nasarre, S. (2008). Motives for regular physical activity in women and men: a qualitative study in French adults with type 2 diabetes, belonging to a patients' association. *Health & social care in the community*, 16(5), 511-520.
- Giel, K. E., Zipfel, S., Alizadeh, M., Schäffeler, N., Zahn, C., Wessel, D., ... & Thiel, A. (2012). Stigmatization of obese individuals by human resource professionals: an experimental study. *BMC public health*, 12(1), 525.
- Greaves, C., Poltawski, L., Garside, R., & Briscoe, S. (2017). Understanding the challenge of weight loss maintenance: a systematic review and synthesis of qualitative research on weight loss maintenance. *Health Psychology Review*, 11(2), 145-163.
- Green, A. R., Larkin, M., & Sullivan, V. (2009). Oh stuff it! The experience and explanation of diet failure: an exploration using interpretative phenomenological analysis. *Journal of Health Psychology*, 14(7), 997-1008.
- Heo, M., Pietrobelli, A., Fontaine, K. R., Sirey, J. A., & Faith, M. S. (2006). Depressive mood and obesity in US adults: comparison and moderation by sex, age, and race. *International journal of obesity*, 30(3), 513.
- Holzappel, C., Cresswell, L., Ahern, A. L., Fuller, N. R., Eberhard, M., Stoll, J., ... & Hauner, H. (2014). The challenge of a 2-year follow-up after intervention for weight loss in primary care. *International Journal of Obesity*, 38(6), 806.
- Jeffery, R. W., Epstein, L. H., Wilson, G. T., Drownowski, A., Stunkard, A. J., & Wing, R. R. (2000). Long-term maintenance of weight loss: current status. *Health psychology*, 19(1S), 5.
- Kiefer, I., Rathmann, T., & Kunze, M. (2005). Eating and dieting differences in men and women. *Journal of Men's Health and Gender*, 2(2), 194-201.
- Kuckartz, U. (2016). Qualitative Inhaltsanalyse. Methoden, Praxis, Computerunterstützung (Grundlagentexte Methoden, 3., überarbeitete Auflage).
- Mayring, P. (2015). Qualitative Inhaltsanalyse. 12., überarb. Aufl.
- Mensink, G. B., Schienkiewitz, A., Haftenberger, M., Lampert, T., Ziese, T., & Scheidt-Nave, C. (2013). Übergewicht und Adipositas in Deutschland. *Bundesgesundheitsblatt-Gesundheitsforschung-Gesundheitsschutz*, 56(5-6), 786-794.
- Metzgar, C. J., Preston, A. G., Miller, D. L., & Nickols-Richardson, S. M. (2015). Facilitators and barriers to weight loss and weight loss maintenance: a qualitative exploration. *Journal of Human Nutrition and Dietetics*, 28(6), 593-603.
- Ohsiek, S., & Williams, M. (2011). Psychological factors influencing weight loss maintenance: an integrative literature review. *Journal of the American Academy of Nurse Practitioners*, 23(11), 592-601.
- Robertson, C., Archibald, D., Avenell, A., Douglas, F., Hoddinott, P., Van Teijlingen, E., ... & Wilkins, D. (2014). Systematic reviews of and integrated report on the quantitative, qualitative and economic evidence base for the management of obesity in men. *Health Technology Assessment (Winchester, England)*, 18(35), v.
- Schienkiewitz, A., Mensink, G., Kuhnert, R., & Lange, C. (2017). Übergewicht und Adipositas bei Erwachsenen in Deutschland.
- Teixeira, P. J., Goings, S. B., Sardinha, L. B., & Lohman, T. (2005). A review of psychosocial pre-treatment predictors of weight control. *obesity reviews*, 6(1), 43-65.
- Tsai, S. A., Lv, N., Xiao, L., & Ma, J. (2016). Gender differences in weight-related attitudes and behaviors among overweight and obese adults in the United States. *American journal of men's health*, 10(5), 389-398.
- Wing, R. R., & Hill, J. O. (2001). Successful weight loss maintenance. *Annual review of nutrition*, 21(1), 323-341.

Thank you for your attention!

Otto-Friedrich-Universität Bamberg



Caroline van der Velde, M.Sc.
Otto-Friedrich-University Bamberg
Department of Clinical Psychology and Psychotherapy
caroline.van-der-velde@uni-bamberg.de

