

An individualized gender-sensitive mHealth intervention for overweight and obesity

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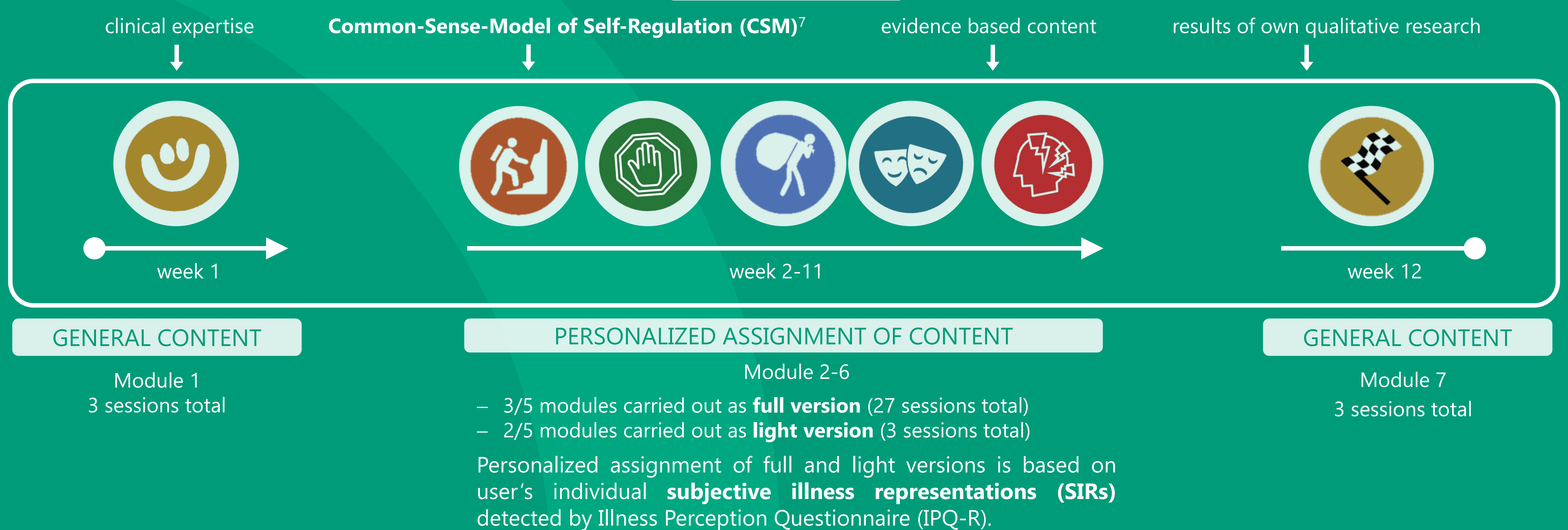
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BACKGROUND

Overweight and obesity have become major health problems worldwide¹. Therefore, effective interventions to reduce excessive body weight are necessary. An emergent number of available mobile-health (mHealth) applications focusing on health behaviour change facilitates a potential resource in treating obesity². Evidence suggests that these tools promote modest weight loss but that long-term efficacy is limited³. These findings could be based on the fact that existing mHealth interventions often lack personalization and customization of the treatment^{4,5}. Individualization may enhance the efficacy and acceptability of app-based weight loss interventions. Since research indicates gender differences in obesity (i.e. prevalence, consequences, motivation) one promising approach to realize individualization is to integrate the concept of gender-sensitivity⁶, which has not been considered yet in the development of interventions for obesity.

AIM Development of an add-on mHealth intervention for overweight and obesity (I-GENDO), which addresses weight-related behavior, cognitions, motives and emotions based on an individualized gender-sensitive approach.

INTERVENTION



INDIVIDUAL ADAPTATION OF CONTENT AND FUNCTIONS



Each module is presented in two different versions (A and B) with Version A containing female-specific and Version B containing male-specific content. At the start of each module, users can choose between these two versions based on brief content and their individual characteristics and preferences (**gender-sensitivity**).

The content has been developed with specific regard to gender-related aspects in obesity (i.e. gender-specific coping behavior). Version A and B transport the same main content, but emphasize gender-specific focuses.



Users can store as helpful perceived strategies in the **toolbox** and quickly retrieve them from there.



Users can choose from four different **coaches** (2 female, 2 male) who accompany and motivate through the user's change process.



Throughout the intervention, users can engage in **self-monitoring** to learn more about their individual eating behavior. The app calculates correlations between hunger, appetite and possible influential aspects (e.g. stress).

DISCUSSION

The I-GENDO mHealth intervention considers gender-specific content based on the CSM and allows the individual adaptation of content and functions within the app, leading to the assumption that these functionalities could improve SIRs, promote health behavior, long-term weight loss and psychological well-being. A randomized controlled trial (including four assessment phases with Ecological Momentary Assessment) will be conducted to test these assumption and to evaluate gender-specific adherence and acceptance of the I-GENDO intervention in a sample of female and male with overweight and obesity. Taking into account the results of the RCT, the individualized and gender-sensitive structure of the I-GENDO intervention may be assigned to other (mental) health conditions.

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