Working your way through self-esteem

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Summary

Previous research has established adolescence as a period of high risk for the emergence of serious mental disorders, with the majority of mental disorders emerging before the age of 25. This underscores the need for prevention and early intervention in youth mental health. It is now well-established that self-esteem is assumed to potentially negatively impact mental health as well as maintain psychopathology. Thus, there is a need for interventions focusing on the crucial developmental period of 12-25 years, targeting transdiagnostic mechanisms that may impact mental health. However, it remains a challenge to offer such interventions to those who could benefit from them, since the current offering of psychological interventions does not reach youth effectively due to several barriers and has limited efficacy under real-world conditions, stressing the need for alternative approaches. This thesis set out to gain a further understanding of self-esteem in the context of psychopathology and mental well-being.

Youth mental health

Chapter 2 begins by laying out the specific characteristics of help-seeking youth between 15 and 25 years facing mental health problems, by describing both the working method of an innovative Youth Mental Health team in the Netherlands, as well as the clinical characteristics of its population. Continuity of care around the critical age of 18 was met by offering the complete treatment within the same multidisciplinary team of professionals, by offering transdiagnostic treatment to facilitate a high rate of co-morbidity characteristic of this patient-group, and by obtaining a flexible approach to adjust interventions to the varying complexity and changing needs of this patient group. Further, we found beneficial effects of the described client-centered approach. In addition, for both lower-level severity and more specialized mental healthcare, results suggest that youth mental healthcare should pay particular attention to psychosocial and environmental problems as they are closely linked to each other and call for an integrated approach to understand and treat them to prevent prolonged duration and poorer functional outcomes.

Self-esteem

The second part of this dissertation concerns research questions regarding self-esteem in the course of psychopathology. Firstly, (temporal) associations between momentary self-esteem, fluctuations in self-esteem, and psychotic experiences in daily life were examined (**Chapter 3**). Findings showed that individuals with first-episode psychosis (FEP), and individuals presenting an at-risk mental state (ARMS), experienced lower momentary self-esteem than controls. However, there was no evidence of a difference in levels of momentary self-esteem between FEP and ARMS. Further, associations between momentary self-esteem and psychotic experiences were present in FEP, ARMS, and controls. Regarding fluctuations in momentary self-esteem (coined as variability and

instability), in all groups, no significant associations with psychotic experiences were found. If we now turn to temporal associations, findings may suggest a reciprocal temporal association between self-esteem and psychotic experiences.

Secondly, we investigated whether childhood abuse (emotional abuse, physical abuse, sexual abuse, and amount of exposure to different types of abuse) modified the association between momentary self-esteem and psychotic experiences in daily life, in ARMS, FEP, and controls (**Chapter 4**). We failed to show a modifying effect of abuse on the association between momentary self-esteem and psychotic experiences. Neither did we find an effect of modification by abuse when investigating the temporal order. This is in contrast with the abundance of research suggesting childhood adversity to be linked to psychosis, and self-esteem as a mechanism on the pathway from childhood adversity to psychosis. Reflecting on this, it should be taken into account that our findings were based on measurements in daily life. Therefore, we suggest not to conclude that the absence of significant findings refutes the role of self-esteem as a mechanism between childhood abuse and psychosis per se, and propose that targeting self-esteem in an intervention has significant potential to prevent the development and maintenance of psychopathology later in life.

SELFIE intervention

In recent years, mobile health (mHealth) has increasingly developed to increase the accessibility of psychological interventions for youth. Ecological psychology assumes that experience and behavior are situated in daily life and that it is key to change behavior in daily life. With the use of mHealth, ecological momentary interventions (EMI) have been developed as smartphone applications for a range of psychopathology, enhancing the generalizability and ecological validity of the delivered interventions and can intervene in moments most needed. An accessible, guided self-help EMI was developed to improve self-esteem (the 'SELFIE intervention') in youth who had experienced childhood adversity. This SELFIE intervention is under study in the SELFIE trial of which the randomized controlled trial (RCT) research protocol is presented in **Chapter 5**. The SELFIE intervention was offered through a smartphone application, over six weeks, in which intervention components were delivered in daily life. Further, it was guided by a trained SELFIE therapist, who offered an (online) meeting at the start of the first week, and every other week. In the weeks in between, the SELFIE therapist emailed the participant with some feedback and an introduction for that coming week. The SELFIE intervention focuses on strengthening positive self-esteem by creating awareness of selective attention in self-evaluation and increasing positive self-evaluation, as well as stimulating the practice of behavior fitting more positive self-esteem, rather than directly targeting negative self-esteem. Results demonstrate efficacy on the primary outcome of self-esteem and signalled beneficial effects on for example general psychopathology and quality of life.

Besides efficacy, other variables are of importance in comparing and evaluating treatments, and a process evaluation was set out to investigate mechanisms leading to outcomes of the SELFIE intervention related to self-esteem, and under what circumstances these mechanisms do or do not come into play (**Chapter 6**). For this, we adopted the realist evaluation method. Our findings propose cognitive behavioral intervention components as mechanisms underlying the SELFIE intervention, leading to a change in cognitions (cognitive restructuring), and consequently, a change in affect was established. Participants gained practice and experience in a new skill related to the self, namely to be able to think positively of oneself, and this was experienced to be supportive of the process of cognitive restructuring. Repetition of exercising this skill was essential in leading to cognitive change, and delivering the intervention through a smartphone application and prompting reminder beeps, seem to be supportive contexts for this repetition. Further, guided self-help may be a supportive context facilitating motivation and active participation. It seemed to enhance a sense of self-direction and participants reported gaining a sense of control over change, which both may be powerful mechanisms, particularly in changing self-esteem.

As described before, EMI is rooted in a theoretical framework of ecological psychology. However, limited theories on EMI are available to date. Our process evaluation aimed to add to this gap of knowledge by investigating, within the SELFIE intervention, mechanisms of EMI (in addition to the previously described results focussing on the mechanisms of self-esteem), and under what circumstances these mechanisms do or do not come into play (**Chapter 7**). The results of our evaluation led to the formulation of the following refined program theories: 1) The SELFIE intervention is offered through a smartphone application enabling constant availability of the intervention and thereby increasing accessibility and feasibility, and, when offered on their personal smartphone this enhanced a sense of privacy ensuring less hesitance in engaging with the app, leading to more open and active participation; 2) Offering the intervention through the use of a smartphone application facilitates the practice of skills that are not dependent on situation-specific characteristics in daily life, supporting repeated practice in different situations, leading to the generalizability of the effect; 3) The use of a smartphone application to deliver the SELFIE intervention may encompass technical malfunction and accompanied irritation and demotivation, leading to less active or delayed participation. Furthermore, the reminder beeps are activated at random moments and with an alerting sound which can be experienced as loud and disruptive, leading to decreased motivation and less active participation, e.g. by turning off the notification or sound. Interestingly, within the SELFIE intervention, the context of accessible technical assistance was reported to act as a "buffer" against possible negative effects of technical malfunction.

Chapter 8 presents a general discussion of the main findings as summarized above, strengths and limitations of this dissertation, and reflects on future directions. Regarding research, we would suggest that every randomized controlled trial testing the efficacy of an EMI should perform a process evaluation of some form to interpret the main findings of the efficacy trial as well as to build knowledge on the working mechanisms of EMIs for further development and implementation. With regards to clinical implications, the SELFIE intervention, if proven to be (cost)-effective, seems to be equipped for prevention and early intervention, since this dissertation points towards the transdiagnostic components to be best applicable to youth experiencing less severe mental disorders. This would imply offering the SELFIE intervention to youth not (yet) in aid of specialized mental healthcare, through for example @ease, an easy-access service for youth (based on the Australian headspace) in the Netherlands.