THE ROLE OF SELF-CONCORDANCE IN IMPROVING THE SELF-MANAGEMENT OF PEOPLE WITH INFLAMMATORY BOWEL DISEASE

Summary of Ph.D Thesis

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XII. Horvát, B., Dávid, A., Sallay, V., Rafael, B., Njers, S., Orbán, K., Molnár, T., Csabai, M. & Martos, M. (2024). 38th Annual Conference of European Health Psychology Society. Self-management of inflammatory bowel disease patients: the role of autonomy support in health goal striving. Portugália, Cascais Estoril.

I. INTRODUCTION

1. THE ROLE OF SELF-MANAGEMENT IN COPING WITH INFLAMMATORY BOWEL DISEASE (IBD)

Inflammatory bowel disease (IBD) is a chronic disease that affects around 50,000 people's lives in Hungary (Lontai et al., 2024; Park et al., 2019; Podolsky, 2002; Sartor, 2006). IBD primarily affects the intestinal tissue and causes symptoms such as abdominal pain, bloody diarrhea, fatigue, and weight loss. There are two main clinical forms: Crohn's disease (CD) and ulcerative colitis (UC), both of which are characterized by alternating periods of remission and relapse (Byrne et al., 2017).

Effective self-management of IBD leads to better health outcomes, including reduced inflammation, symptom relief, and improved quality of life (Jones et al., 2021; Smith et al., 2017). Despite its relevance, 30–45% of patients do not adhere to treatment (Wagoner & Kavookjian, 2017) and often use maladaptive coping strategies such as smoking, alcohol consumption, or neglecting dietary recommendations. Nevertheless, research has focused more on disease education than self-management (Barlow et al., 2010; Kemp, 2012). Research among people with IBD has so far focused primarily on disease-related education, with less attention to the psychological mechanisms of self-management (Barlow et al., 2010; Kemp, 2012; Wagoner & Kavookjian, 2017).

2. HEALTH-RELATED PERSONAL GOALS

To maintain a stable condition and prevent symptom worsening, active patient participation is necessary, particularly in adhering to long-term medication therapy, attending regular check-ups, and implementing lifestyle changes (von Wiethersheim et al., 1992; Kane et al., 2001; Dudley-Brown, 2002). Although research highlights the benefits of health behaviors and the importance of self-management in people with IBD, no studies have specifically examined the subjective experiences associated with personal health goals in this patient population.

Health goal tracking allows professionals to monitor the status of personally relevant aspirations of patients with IBD, for example, how often they experience positive emotions during their pursuit, and how successfully they can commit to these goals in the long term (Austin & Vancouver, 1996; Peterman & Lecci, 2007; Martos, 2009a). Successful goal setting

improves patients' sense of autonomy and control, enhances self-efficacy, and can help maintain long-term adherence, which is crucial for improving overall quality of life given the chronic nature of the disease (Lamers et al., 2022; Lo et al., 2021; Schlee et al., 2022). In my doctoral research, I applied an idiographic goal-setting approach to analyze patients' personally meaningful aspirations (Little, 1999), as I aim to focus on the motivational and emotional aspects of personal health goals in patients with IBD, with particular attention to self-concordance as an internal psychological resource (Hobfoll, 1989).

3. THE ROLE OF SELF-CONCORDANCE IN SELF-MANAGEMENT

My doctoral research is based on the self-concordance sub-theory of Self-Determination Theory (SDT; Ryan & Deci, 2000; Sheldon & Elliot, 1998). According to self-concordance theory (Sheldon & Elliot, 1998), motivation exists on a continuum from controlled to autonomous regulation. The difference between the two types of motivation reveals the extent to which the goal aligns with the person's intrinsic values, needs, and desires. Self-concordant goals are consistent with intrinsic values, talents, and needs and lead to more positive emotions, effort, and greater persistence over time (Ryan & Deci, 2001; Sheldon et al., 2004; Wan et al., 2021). Promoting intrinsic motivation to achieve health goals can help to initiate and maintain desired behavior change through long-term commitment. In the treatment of IBD, self-concordance may represent a potential internal motivational resource that may be crucial for long-term treatment adherence (Wan et al., 2021).

4. THE ROLE OF SELF-EFFICACY IN SELF-MANAGEMENT

In addition to self-concordance, there is an alternative personal psychological resource that is partly related to, and partly in competition with, self-concordance. Self-efficacy is defined by Bandura (1977, 2001) as the perceived capacity for action that determines how well individuals cope with challenges and stress (Koestner et al., 2008; Fernández et al., 2008). As one of the most complex theories in the behavior change literature, the Health Action Process Approach (HAPA; Schwarzer, 2016), suggests that self-efficacy is key to health behavior change.

Research in patients with IBD has shown that higher self-efficacy in this patient group was associated with more successful coping, more regular visits to the doctor, and the use of

psychological support (Keefer et al., 2011; Graff et al., 2016). It also correlated positively with self-esteem and general quality of life and proved to be a protective factor against anxiety and depression (Izaguirre et al., 2017; Graff et al., 2016). Although self-efficacy and autonomous motivation have been examined separately in several studies, few studies have explicitly linked the construct of self-concordance with self-efficacy, specifically in the context of health-related personal goals.

5. AUTONOMOUS AND DIRECTIVE SUPPORT

Social support plays a key role in coping with chronic diseases. In patients with IBD, appropriate social support has been shown to significantly improve self-management and alleviate symptoms (Keefer et al., 2011; Graff et al., 2016). Previous research suggests that *directive support* may be potentially useful in facilitating immediate behavior change, but it has not been consistently associated with internalization of goals or long-term well-being. In contrast, *autonomous support*, which involves recognizing a person's will and validating their true feelings, promotes the development of intrinsic motivation. Autonomous support is also closely related to enhancing self-confidence and self-efficacy, which are also key factors in health behavior change (Koestner et al., 2008; Mann et al., 2013).

Due to the chronic nature of IBD, the management of the disease requires regular medical monitoring, so contact with a professional is crucial for people living with IBD. In my doctoral research, I therefore investigated the role of autonomous and directive support from the health professional in the context of health goals, primarily in terms of self-concordant motivation (Koestner et al., 2008).

II. AIMS AND HYPOTHESIS

In summary, my doctoral research investigated motivational and emotional aspects of self-management among people with IBD, with a focus on self-concordance and its associations with self-efficacy in achieving health goals, emotional experiences, autonomy support from the healthcare professional, and goal progress.

1. STUDY I: In the first study, I developed and tested a theoretical model suggesting that people

with IBD experience more positive emotions (joy, satisfaction, and pride) and fewer negative emotions (such as frustration, sadness, or grief) when pursuing their health goals when they set goals that are self-concordant. I called this the *internal resource mobilization hypothesis*. In addition, I examined the emotional patterns of self-efficacy as an independent but related aspect of self-management. I also investigated the importance of these two internal resources for patients' overall well-being: I hypothesised that self-concordance and self-efficacy would predict patients' overall anxiety levels directly and indirectly through positive and negative emotions.

2. STUDY II: Building on the research findings presented in Study I, in Study II I examined a particularly important aspect of the social environment of IBD patients, namely the role of autonomous or directive support from the healthcare professional in the development of self-concordance with health goals, taking into account self-efficacy and emotions. In this study, I considered disease activity as a contextual variable, as it is important to recognize that self-management may vary depending on the current state of symptoms. In addition, I wanted to test the internal resource mobilizing function of self-concordance; its relationship with positive and negative emotions, in a sample with IBD with a larger number of items than in Study I. In this study, I used the Satisfaction with Life Scale to assess well-being.

3. STUDY III: The third study was a longitudinal research project that consisted of three data collection points. Building on the research described in the first two studies, the main aim of Research III was to investigate the effects of self-concordance, through positive emotions, on the achievement of health goals three and six months later. Given the relatively small number of items in the IBD follow-up sample, in this study, I focused specifically on the longitudinal relationship between self-concordance, emotional experiences, and goal progress to examine potential causal relationships.

III. METHODS

3.1. PARTICIPANTS AND PROCEDURE

The doctoral research is part of a longitudinal, team-based project funded by OTKA *("Health goals in social-ecological context: the Personal Niche Model of health")*. Ethical

approval for the study was granted by the Regional Research Ethics Committee (RKEB) of the University of Szeged, Albert Szent-Györgyi Health Centre (approval number 14/2022-SZTE RKEB). The studies were conducted in accordance with the Declaration of Helsinki, and informed consent was obtained from all participants.

3.1.1. STUDY I

The participants were recruited from the Gastroenterology Center of the Department of Internal Medicine at the University of Szeged. The target group consisted of patients diagnosed with inflammatory bowel disease (IBD). In total, data from 141 IBD patients were included in the analysis. Data was collected using a paper and pencil questionnaire, which participants completed at their regular hospital check-ups. Data collection took place from April to May 2022. Before completing the questionnaire, participants were informed about the details of the study and gave their written consent. The questionnaire package, consisting of several other scales not discussed here, took approximately 30-40 minutes to complete.

In sum, 141 patients' data were involved in the analysis, of whom 96 patients (68.08%) reported having a health-related goal, and 38 patients (26.95%) reported not having a health-related goal. There were 66 females (68.75%) and 30 males (31.25 %). The mean age of the participants was 38.20 years (SD = 11.9). According to the type of IBD, 79 patients (56.02%) had Crohn's disease (CD), and 56 patients (39.71%) had a diagnosis of ulcerative colitis (UC). 95 patients' disease was in remission (67.4%), and 44 patients' disease was in the relapse phase (31.2%) at the time of the data collection.

3.1.2. STUDY II

This cross-sectional, questionnaire-based study was conducted at the same place as Study I, between November 2022 and February. Participants were recruited by personal invitation, by completing an online questionnaire, which took approximately 30-40 minutes. providing written informed consent, participants completed the questionnaire,

In Study II a total of 377 adult patients with IBD responded to the cross-sectional questionnaire study, of whom 241 patients (64.4%) had Crohn's disease, and 133 patients (35.6%) had ulcerative colitis. In addition, 44.3% were male, the average age was 41.8 ± 12.1 years, and the average disease duration was 14.7 ± 9.34 years. In terms of disease status, 289

patients were in remission (77.9 %) and 82 patients were in relapse (22.1 %) at the time of data collection.

3.1.3. STUDY III

This part of the research was a longitudinal, questionnaire-based study. Participants during the baseline data collection were recruited in two waves. Participants who agreed to participate in the second and third data collections received the T2 and T3 questionnaires by e-mail. The T1, T2, and T3 surveys were linked with a generated code.

The sample for the first T1 data collection consisted of 377 IBD patients whose descriptive statistics were described in detail in Study II. In addition, a supplementary data collection was conducted, where 40 additional IBD patients were included in the follow-up study. The final baseline (T1) sample consisted of 417 IBD patients, of whom 187 individuals completed the 3-month follow-up (T2) questionnaire during the second data collection, and 148 patients were followed up six months later at the third data collection (T3).

Of the total 417 adult patients with IBD, 255 patients (63%) had CD, 139 patients (34.3%) had UC, and 11 patients (2.7%) had an US type of IBD. 43.6% were male, the average age was 43.5 ± 12 years, and the average disease duration was 15.6 ± 9.28 years. In terms of disease status, 304 patients were in remission (77.7 %) and 87 patients were in relapse (22.3 %) at the time of the first data collection, 139 patients were in remission (81.3%), 32 patients in relapse (18.7%) at the time of second data collection, and 107 patients (82.9%) were in remission, 22 (17.1%) patients were in relapse at the time of the third data collection. Latent factor scores of the construct variables on the three data points were estimated using a structural equation modeling procedure.

3.2. MEASURES

3.2.1. STUDY I

1. IBD-SPECIFIC QUESTIONS. Self-reported questions about the disease, including diagnosis, type, activity, and symptoms.

2. HEALTH GOAL ASSESSMENT. Self-management was operationalized through health goals, utilizing a modified version of the Personal Project Analysis technique (PPA, Little, 1993; Koestner et al., 2012; Martos, 2009). Patients were asked to list their health-related goals,

select one of them, and evaluate it according to the following criteria.

A) GOAL SELF-CONCORDANCE (Sheldon & Elliot, 1999). Goal self-concordance refers to the extent to which the person has internalized the goal. It is calculated from the subtraction of two items of autonomous and three items of controlled motivation (Sheldon & Elliot, 1999). The questionnaire provided a five-point Likert scale for each response.

B) GOAL SELF-EFFICACY (Rózsa et al., 2003). Goal self-efficacy refers to the person's belief in his/her ability to achieve the goal. This four-item questionnaire provides a five-point Likert scale for each response.

C) POSITIVE AND NEGATIVE EMOTIONS (Martos et al., 2013). Three items referred to the positive emotional experiences (such as joy, pleasure and a sense of flow), and three items referred to the negative emotional experiences (such as frustration, sadness or grief) during the goal implementation process. Both subscales used a five-point Likert scale.

3. STATE-TRAIT ANXIETY INVENTORY (STAI-T and STAI-S, Spielberger, 1983; Sipos et al., 1978), Trait Anxiety Subscale. The questionnaire was used to measure the general levels of anxiety. The trait anxiety score was calculated from 20 items, rated on a four-point Likert scale (ranging from "Almost Never" to "Almost Always").

3.2.2. STUDY II

1. IBD-SPECIFIC QUESTIONS

2. HEALTH-RELATED PERSONAL STRIVINGS

In Study II, based on the experiences of Study I, we slightly modified the instructions regarding health goals and placed the emphasis on having the study participants formulate *what they do for their health* instead of defining a personal goal. In the following, I will refer to these as personal strivings. The evaluation was carried out in the same way as in the first study, with the addition that autonomy and directive support were also assessed here. Furthermore, the modification was made that instead of Trait Anxiety, Satisfaction with Life was assessed as an inducer of quality of life. In summary, in relation to health-related aspirations, the following characteristics were asked from the patients to be evaluated:

A) SELF-CONCORDANCE (Sheldon & Elliot, 1999).

B) SELF-EFFICACY (Rózsa et al., 2003).

C) POSITIVE AND NEGATIVE EMOTIONS (Martos et al., 2013).

D) AUTONOMY AND DIRECTIVE SUPPORT (Koestner, 2012). The questionnaire assessed the participants' perceptions of the support from the healthcare professionals for their health-related goals. This assessment consisted of two subscales with three items each, namely: autonomy and directive support. The responses were scored on a seven-point Likert-type scale ranging from 1 (not at all true) to 7 (very true).

3. SATISFACTION WITH LIFE SCALE (Diener et al., 1985; Martos et al., 2014).

A total of five items were employed to measure the patients' satisfaction with life. The responses were based on a five-point Likert scale, ranging from 1 (I totally agree) to 5 (I do not agree at all).

3.2.3. STUDY III

Methodologically, in the Baseline, I employed the same set of questionnaires demonstrated in the Study II Methods section. For the T2 and T3 data collections, participants completed a shortened version of the questionnaire used in the T1 data collection. The questionnaire consisted of the following sections:

1. IBD-SPECIFIC QUESTIONS

2. HEALTH-RELATED PERSONAL STRIVINGS. Strivings were assessed based on the criteria of:

A) SELF-CONCORDANCE (Sheldon & Elliot, 1999). In this study, to get a more precise picture of the two elements of self-concordance, I analyzed autonomous motivation (AM) and controlled motivation (CM) separately. The motivation types were measured by summing the scores of 2-2 items of the previously used autonomous and controlled motivation.

B) POSITIVE AND NEGATIVE EMOTIONS (Martos et al., 2013).

C) GOAL PROGRESS (Koestner et al., 2002; Csuka et al., 2021)**.** To assess the perceived progress of health-related personal striving, we used a four-item scale. The participants rated the statements on a 7-point Likert scale (1 = very rarely, 7 = very often).

IV. RESULTS

4.1. STATISTICAL ANALYSIS

JASP (Version 0.18.3; JASP Team, 2024) and JAMOVI (Version 2.3; The Jamovi Project,

2022) software were used for the statistical analyses of the data of the studies. Patients' scores for the inventories were summarized using descriptive statistics, and Pearson's correlation coefficients were used to quantify associations between variables (0.10 is small, 0.30 is moderate, and 0.50 is large; Cohen, 1988). Path analysis was used to examine the relationships between variables. For further examination of the relationship between variables, standardized regression coefficients (β) were used to quantify the strength of association (0.10 is small, 0.30 is moderate, and 0.50 is large).

Path analytic models in the studies were employed to evaluate systems of equations, enabling the identification of potential causal linkages and the most influential pathways in predicting specific outcomes. To assess the models' goodness of fit, we relied on multiple indices. These included the χ^2 test, the root mean squared error of approximation (RMSEA), the normed fit index (NFI), the comparative fit index (CFI), and the incremental fit index (IFI). Acceptable fit criteria required NFI, CFI, and IFI values to exceed .90, while RMSEA values between .05 and .10 were considered indicative of a fair fit.

4.2. STUDY I

Since the self-concordance-based path analysis model is saturated, the fit indices indicate a perfect fit to the data: X^2 (0) = 0.00, p = 1.00, CFI = 1.00, TLI = 1.00, RMSEA = 0.00, SRMR <.001. Self-concordance at a tendency level has a positive effect on positive emotions and a significant negative effect on negative emotions. Self-efficacy has a significant positive effect on positive emotions and a significant negative effect on negative emotions. Positive emotions have no significant effect on trait anxiety, but negative emotions have a significant negative effect on trait anxiety. Self-concordance has a significant negative effect on trait anxiety. Self-efficacy has no significant effect on trait anxiety. Self-efficacy has a significant moderate positive association with self-concordance. Positive and negative emotions have a significant, small negative association.

4.3. STUDY II

In this study, the fit indices for the path analysis model indicated an appropriate fit to the data: χ^2 (8) = 18.914, p = .01, CFI = .935, TLI = .837, RMSEA = .06. In order to examine the possible differences between the patients in different stages of the disease (i.e., remission

or relapse), we tested the multiple-group path analytic models. To examine the model invariance between the patients in remission and relapse, the following steps were performed. First, the unconstrained model (i.e., the model in which the paths are free to vary between groups) was estimated and the differences in significant pathways between the groups were analyzed: ($\chi2 =$ 41.422, df = 24, p = .01). NFI = .81, IFI = .91, CFI = .89, and RMSEA = .07, CI =.03-.12). Next, the model fit for the constrained model (i.e., the model in which the means are constrained to be equal across the groups) was assessed. In this case, the unconstrained and constrained models were compared by using the CFI values. In addition, we tested additional constrained models (means and regression coefficients). We stopped the testing with the model restricting regression coefficients when the model started to significantly deteriorate.

Overall, the fit indices for the constrained model were as follows: NFI = .68, IFI = .85, CFI = .83, and RMSEA = .07, CI =.04–.12. According to the CFI values, there is no difference between the groups according to the means, but there is a difference between the groups in regression coefficients. Thus, by separately testing the model in the remission and relapse groups, we found differences in the pathways: According to the results, autonomy and directive support only predict self-concordance among the patients in relapse, while self-efficacy and self-concordance only significantly predict negative emotions among the patients in remission. Moreover, positive emotions only significantly predict satisfaction with life in the remission group.

4.4. STUDY III

In Study III in the cross-lagged path analysis, I used the estimated latent score variables at the three time points as initial variables. The fit indices for this model indicated an appropriate fit to the data: χ^2 (33) = 108, $p < 0.001$, CFI = .95, TLI = .84, RMSEA = .12. According to the results, T1 autonomous motivation positively predicted more positive and less negative emotions at T2. Positive emotions at T1 predicted better goal progress and lower controlled motivation at T2. T2 goal progress in turn predicted more positive emotions at T3. Autonomous motivation at T2 predicted more positive emotions at T3.

V. DISCUSSION

5.1. STUDY I

According to the results of Study I, self-concordant goals predict more positive and fewer negative emotions in the pursuit of health-related goals. In addition, self-concordance is associated with lower levels of anxiety, a relationship that is partially mediated by negative emotions. This finding is consistent with research showing that autonomously regulated goals, i.e. goals that are consistent with personal values and desires, can promote psychological need satisfaction and thus contribute to better overall functioning and well-being (Ryan & Deci, 2000, 2017; Sheldon et al., 2004). The results confirm the importance of self-concordance as an intrapersonal psychological resource for self-management in IBD.

Although self-efficacy can enhance positive emotions by promoting motivation and goal achievement, it cannot directly reduce negative emotions. One possible explanation is that negative emotions are influenced by numerous factors, including external stressors, interpersonal relationships, and cognitive patterns. If the underlying cause of negative emotions is not a lack of self-efficacy, simply increasing self-efficacy may not be sufficient to reduce them unless it is supplemented by additional coping mechanisms or emotion regulation strategies (Schwarzer & Fuchs, 1996).

The findings suggest that in reducing anxiety, mitigating negative emotions may be a more crucial factor than increasing positive emotions (Beck & Clark, 1997). This means that interventions to improve self-management should not only focus on facilitating joyful or satisfying experiences, but also on developing adaptive coping strategies for regulation negative emotions. While positive emotions such as joy and satisfaction contribute to psychological well-being, they are not enough to directly counteract the psychological effects of anxiety and stress (Frederickson, 2001). Without effective coping mechanisms for negative emotions, anxiety can maintain in the long term (Gross & John, 2003).

Self-concordance and self-efficacy represent different emotional patterns in the pursuit of health-related goals, which is consistent with research suggesting that these two psychological factors are complementary but independent aspects of self-management (Fuchs et al., 2016; Downes et al., 2017). Self-efficacy is strongly associated with positive emotions, but shows no significant relationship with negative emotions. This result is consistent with the results of Bandura (1997), according to which people who have greater confidence in their abilities are more likely to be satisfied with their activities and feel more competent in performing these activities.

5.2. STUDY II

The primary aim of the research described in Study II was to investigate the role of autonomous and directive support from the health professional in the development of self-concordance, taking into account disease activity. The results suggest that the positive effect of autonomic support on self-concordance is significant only during the relapse phase, while the relationship during remission is ambivalent. In parallel, directive support predicted only lower self-concordance during relapse, suggesting that excessive guidance to patients during relapse may inhibit the internalization of health goals. The patterns of self-concordance and self-efficacy in relation tosocial support show a difference, as autonomous and directive support are only related to self-concordance during the relapse phase, while self-efficacy is only related to autonomous support regardless of the disease state.

The second aim of the study was to investigate the relationship between self-concordance, self-efficacy, and emotions in the pursuit of health goals. The results suggest that self-concordance increases positive emotions during both remission and relapse, while it decreases negative emotions during remission in the pursuit of health goals. These findings are consistent with recent research such as the study by Peters and Brown (2022), which suggests that acceptance of illness contributes to the activation of psychological resources and more effective self-management. The finding that self-acceptance only reduces negative emotions during periods of remission suggests that it acts as a protective factor during periods of optimal health. During relapse, this protective function appears to be weakened, presumably because patients are primarily focused on coping with physical symptoms, which can distract them from motivation to achieve health goals.

Self-efficacy, like self-concordance, predicts more positive emotions, both in remission and in relapse. As self-efficacy has a significant impact on illness-related health behaviours and disease management, it plays a key role in predicting health outcomes in chronic diseases such as IBD (Bandura, 1977; Dur et al, 2014). The positive effect of self-efficacy on the pursuit of health goals is consistent with previous research that has linked self-efficacy to self-esteem, health-related quality of life and improved psychological well-being in IBD patients (Izaguirre et al., 2017). However, negative emotions were only associated with self-efficacy during the quiescent phase of the disease, as was self-efficacy.

The third aim of the study was to investigate the relationship between emotional experiences with health goals and overall life satisfaction, in particular whether emotions play

a mediating role between self-efficacy, self-efficacy and life satisfaction. The results suggest that life satisfaction was influenced by both positive and negative emotions across the sample. However, when disease activity was taken into account, the predictive power of positive emotions remained significant only in the remission group, while negative emotions predicted lower life satisfaction only in relapse. According to the COR theory (Conservation of Psychological Resources) (Hobfoll et al., 1989), psychological resources offer protection against stress and help the individual to cope. However, an increase in physical symptoms during relapse can limit the maintenance and rebuilding of these resources as well as self-efficacy and self-efficacy beliefs. Access to resources also has an impact on overall mental health.

The findings suggest that healthcare professionals should pay particular attention to supporting patient autonomy, as this promotes the development of self-concordance and self-efficacy, which are important psychological resources for achieving health goals. In addition, disease activity is a crucial factor in the self-management of IBD patients, as it influences the mobilisation of resources and the effectiveness of self-management.

5.3. STUDY III

Building on the longitudinal research design, the main aim of Study III was to investigate the bidirectional relationship between self-concordance and emotions and also to explore how emotions influence the progress of health-related personal aspirations over time. The results show that autonomous motivation can promote positive emotions and reduce negative emotions over time. There is a circular relationship between positive emotions and goal progress, as positive emotions promote goal progress, which in turn reinforces positive emotional experiences.

Study II showed in a cross-sectional design that self-concordance predicts more positive emotions and serves as an internal resource that facilitates positive experiences. According to the longitudinal results, higher autonomous motivation at Time 1 predicted more positive and fewer negative emotions at Time 2, and autonomous motivation at Time 2 predicted more positive emotions at Time 3. According to the self-concordance theory (Sheldon & Elliot, 1998; Ryan & Deci, 2000), motivated behavior exists on a continuum from controlled to autonomous regulation. Autonomous motivation can promote positive emotions and reduce negative emotions over time, whereas controlled motivation has no such effect. The results suggest that

it is important to distinguish between autonomous and controlled motivation when examining self-concordance, as the degree of autonomy plays a crucial role in shaping emotional experiences in the pursuit of health goals. Higher autonomy is more strongly associated with positive emotions, while lower autonomy can intensify negative emotional experiences. Accordingly, it is not only the content of the goals but also their mode of regulation that is decisive for successful self-management.

Positive emotions at Time 2 predicted lower controlled motivation at Time 3. Based on the Broaden-and-Build theory of emotion (Frederickson, 2001), positive emotions lead to goal-directed activities being perceived as more pleasurable and rewarding, which increases autonomous motivation. The results of this study confirm that positive emotional experiences may promote self-management not only by increasing autonomous motivation but also by decreasing the controllability of self-regulation.

According to H3 and H4, positive emotions at Time 1 lead to better goal progress at Time 2, which in turn predicts more positive emotions at Time 3. Consistent with SDT (Ryan & Deci, 2000), individuals experience a sense of fulfillment and competence when they see progress toward their goals. Achievement of personally meaningful goals leads to internal rewards and thus positive emotions such as pride and satisfaction. This emotional response can further strengthen the ongoing commitment to achieving goals. The results show that there is a positive feedback loop between goal progress and positive emotions. Individuals who feel happier and more positive are therefore more likely to invest more effort and persistence in their goals, leading to greater progress over time (Fredrickson, 2001).

To summarize, the reciprocal relationship between goal progress and positive emotions underscores the dynamic nature of self-regulation, in which motivation and emotional experiences constantly influence and reinforce each other. The results also emphasize the need to distinguish between autonomous and controlled motivation when studying self-concordance, as these motivational aspects may be associated with different emotional patterns. For patients with IBD, fostering positive emotional experiences may be key to achieving health goals related to self-management, both in terms of internalization and goal attainment.

VI. GENERAL CONCLUSIONS

Based on the results of the studies presented in the thesis, self-concordance is seen as an important psychological resource in coping with inflammatory bowel disease. Patients

whose health goals are aligned with their intrinsic values experience more positive emotions, which not only increases their motivation but also promotes long-term maintenance of behavioural changes. Self-concordance is closely related to self-efficacy and plays a crucial role in self-management in IBD, and also the development of patients' general well-being. The results suggest that an autonomy-supportive environment; an attitude that acknowledges personal choices and accepts negative emotions, has a positive impact on self-concordance, especially during times of disease relapse, when patients may need to mobilise more psychological resources. The results show that providing an autonomy-supportive social environment in patient care can contribute to more effective self-management in people with IBD.

VII. IMPLICATIONS FOR PRACTICE: AN INTERVENTION METHOD

Based on the results of my doctoral research, I began to develop a projective goal representation method, the projective technique called "*Internal map of my health-related personal goals*", which can be a useful tool for professionals working with IBD patients in exploring the motivational side of health aspirations related to self-management. The goal representation and the subsequent self-reflection questions can also be used as an intervention tool to facilitate the internalization of health-related aspirations. The guideline for the intervention method is presented in the Appendices under Annex 1.

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IX. APPENDICES

Annex 1: The "Internal map of my health-related personal goals" intervention technique

Instruction:

1. A LIST OF MY PERSONAL HEALTH-RELATED GOALS

 Write down your personal health goals in the table and rate them on a scale of 1 to 5, according to how much energy and attention you are currently putting into achieving them:

 1 = I put very little energy into it
 2 = I spend rather little time on it
 3 = I devote a moderate amount of time and effort to it
 4 = I devote a lot of attention and energy to it
 5 = I devote a great deal of energy to it, it is one of my main priorities

 Write the goals in the table in the order in which you feel they are most important at number 1., with the one you feel is least important at the top and the one you feel is least important at the bottom at number 5.

Number	Health goals	How much energy do you put into it? 1 = I put very little energy into it . . . 5 = I put a lot of energy into it
1.		
2.		
3.		
4.		
5.		

2. THE VISUAL REPRESENTATION OF PERSONAL HEALTH GOALS

(Internal map of my health goals)

On the next page you will find a simple drawing of two concentric circles.

Imagine that the two circles together represent your inner world. The part outside the outer circle is the world outside of you.

The inner circle is your true self.

You can feel that the goals that come from here are really in line with your inner values, and that what you do because of this is really your own, you can be very much in line with it.

From the outer circle come all goals that are your own but come from outside your true self. This includes goals that you pursue primarily because others, e.g. your partner, your friends or your parents, expect you to do so - or because you would feel guilty or bad if you did not.

For example, if you only follow your diet because your doctor expect you to, it probably makes sense to put it on the outer circle. If you follow your diet mainly because you know it's good for your disease, and beacuse you would also like to comply with your doctor's recommendations place it between the outer and inner circle. If you feel ownership of the diet, you can identify with the fact that it is important for your health, and you experience joy and satisfaction when you work on this goal, place it in the inner circle

Place your goals one by one, marked with a number - depending on the order in which you have listed them in the table above - within the large or small circle, according to how much you feel they are yours.

In the top circle, write the goals that are entirely intrinsically motivated. In the outer circle, those that he does more because of external expectations. And in the circles, those in which both factors are present.

If you wish, you can also highlight each goal with a colour or a symbol (e.g. ● strongly intrinsically motivated, ◆ mixed motivation, ● more of an external expectation).

the border of the
Self

Inner / True Self
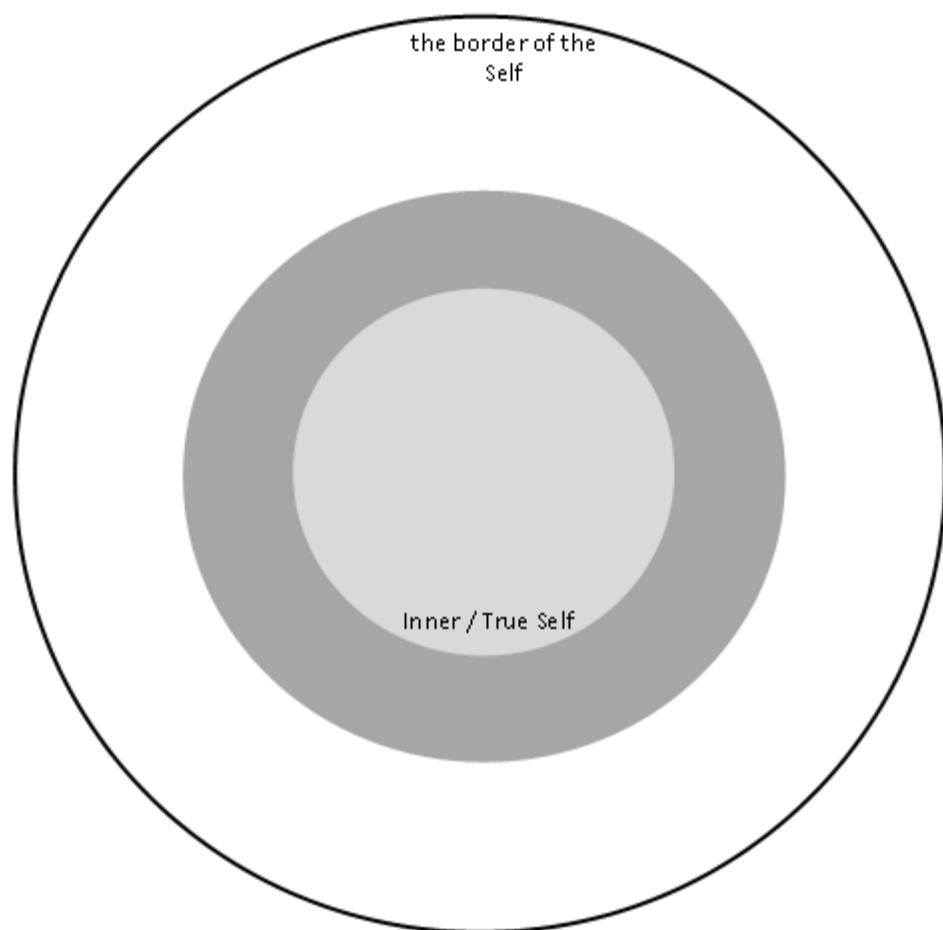
3. PERSONAL REFLECTION

- What did you observe? What type of health goal do you have more of? Internally motivated or influenced by external expectations?

- Do you have any health goals that you would like to move from one circle to another?

- Do you have a health goal that consumes too much energy but is not important enough?

- Do you have a health goal that you would like to put on the back burner or let go of altogether?

- Which of your health goals would need more attention and resources to really move forward?

- Are there any health goals that are the result of external expectations that you would like to let go of?