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The role of counselor behaviors in e-mail support to improve mental well-being

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Abstract

Background

Positive psychology aims to improve mental well-being as well as to prevent psychological pathology and is increasingly offered via the internet. Online guided self-help interventions have been proven more efficacious than interventions without counselor support, but uncertainty about effective components of the support remains. The aim of this study is to identify counselor behaviors in the e-mail support of the self-help intervention *This is Your Life* and the relationship between the counselor behaviors and an increase in mental well-being as well as six mental well-being components.

Method

This study uses data from a previous RCT by Schotanus-Dijkstra et al. (2015) about the effectivity of a multicomponent positive psychology intervention. A subsample of 92 participants treated by four counselors who sent 796 e-mails was investigated by using a qualitative content analysis. The relationships between the counselor behaviors and the outcome measures were determined using quantitative analyses.

Results

13 counselor behaviors could be identified of which *positive reinforcement, paraphrasing* and *improve working relationship* were the most frequent. The counselor behaviors were not related to an increase in mental well-being but to an increase in some mental well-being components. *Encourage* is the only behavior that significantly correlated with two outcome measures, the use of strengths and self-compassion. The mental well-being component use of strengths had most of the significant correlations with counselor behaviors. All significant correlations were found to be weak.

Conclusion

The identified counselor behaviors seem to have little additional impact on the effectivity of the self-help intervention to increase mental well-being and its components. Future research can use these findings by comparing different forms of online support to determine the additional value of e-mail counseling for the effectivity of positive psychology interventions.

Samenvatting

Achtergrond

Positieve psychologie heeft tot doel het mentaal welbevinden te verbeteren, evenals psychologische pathologie te voorkomen en wordt steeds vaker aangeboden via het internet. Online begeleide zelfhulpinterventies zijn bewezen efficiënter dan interventies zonder begeleiding, maar het is nog steeds onduidelijk welke onderdelen van de ondersteuning effectief zijn. Het doel van deze studie is het identificeren van begeleider gedrag in de e-mailondersteuning van de zelfhulpinterventie *Dit is Jouw Leven* en de relatie tussen het gedrag van de begeleiders en een toename van mentaal welbevinden, evenals zes mentale welbevinden componenten.

Methode

Deze studie gebruikt gegevens van een vorige RCT door Schotanus-Dijkstra et al. (2015) over de effectiviteit van een multicomponent positieve psychologie interventie. Een subsample van 92 deelnemers, ondersteund door vier begeleiders die 796 e-mails verstuurden, werd onderzocht door gebruik te maken van een kwalitatieve inhoudsanalyse. De relaties tussen het gedrag van de begeleiders en de uitkomstmaten werden bepaald met behulp van kwantitatieve analyses.

Resultaten

Er konden 13 begeleider gedragingen worden geïdentificeerd waarvan *positieve versterking*, *parafraseren* en *werkrelatie verbeteren* de meest voorkomende zijn. De begeleider gedragingen waren niet gerelateerd aan een toename van mentaal welbevinden maar aan een toename in sommige mentaal welbevinden componenten. *Stimuleren* is het enige gedrag dat significant gecorreleerd is aan twee uitkomstmaten, sterke kanten en zelfcompassie. De welbevinden component sterke kanten had de meeste van de significante correlaties met counselor gedrag. Alle significante correlaties bleken zwak te zijn.

Conclusie

De geïdentificeerde begeleider gedragingen lijken weinig aanvullende impact op de effectiviteit van de zelfhulpinterventie te hebben om het mentale welbevinden en de componenten ervan te vergroten. Toekomstig onderzoek kan deze bevindingen gebruiken door verschillende vormen van online ondersteuning te vergelijken om de aanvullende waarde van e-mailberichten te bepalen voor de effectiviteit van positieve psychologische interventies.

1. Introduction

1.1 Positive Psychology

Positive psychology is based on the two-continua model that describes mental health and mental illness as two moderately related but distinct factors. To be more specific, the model shows that having a psychological dysfunction does not automatically mean to have low levels of mental well-being as well as low levels of mental well-being do not automatically mean to have only few psychopathological symptoms (Keyes et al., 2008). Therefore, it is important to not only focus on psychological dysfunctions but to also stress the mental well-being aspect, which is the focus of positive psychologists.

Mental well-being is composed of emotional, psychological and social dimensions (Bohlmeijer, Bolier, Westerhof & Walburg, 2015). Emotional well-being is the subjective experience of well-being; psychological well-being is the effective functioning of the individual in the sense of self-realization and social well-being means to function effectively in society. A state of optimal mental well-being is called flourishing: having a high level of at least one of three emotional well-being aspects and high levels of at least six out of 14 social and psychological well-being aspects (Keyes, 2002). Flourishers have a lower risk of developing mental illnesses, emotional distress and less loss of workhours which demonstrates that flourishing has a significant impact on functioning and health (Keyes, 2002; Keyes & Simoes, 2012). 37% of the Dutch population (Schotanus-Dijkstra, Drossaert, Pieterse & Bohlmeijer, 2015) and 17% of the American population (Keyes, 2002) are flourishers which indicates that there might be room for progress.

Positive Psychology Interventions (PPIs) can be used to increase flourishing and are "treatment methods or intentional activities aimed at cultivating positive feelings, positive behaviors, or positive cognitions" (Sin & Lyubomirsky, 2009, p. 1). According to a meta-analysis of 51 such interventions by Sin and Lyubomirsky (2009), PPIs seem to be effective in increasing mental well-being and in decreasing depressive symptoms. PPIs are used at different levels (Bohlmeijer et al., 2015). At the macro-level, policies are formulated to support the pursuit of well-being in the society. At the meso-level, interventions are implemented in organizations and at the micro-level, interventions are offered to individuals. The current study is focusing on the micro-level. PPIs, as well as cognitive-behavioral therapy interventions, are more and more offered or supported via the internet, which means via eMental Health.

1.2 eMental Health

The use of modern communication technologies in the mental health care sector is growing. This emerging field is called *eMental Health* and can be defined as supporting mental health and health care by using the internet. Three common types of *eMental Heath* are full online treatment (e.g. www.interapy.nl), blended care (e.g. moodbuster.eu in combination with a face-to-face therapy) and exercises and applications for support (e.g. www.minddistrict.com). Advantages of *eMental Health* over traditional therapy is the improved efficiency (Hedman et al., 2012) and quality of care (Beattie, Shaw, Kaur & Kessler, 2009), the patient-centeredness and the enhanced access to care (Pelling, 2009). Several studies have shown that online therapy is equally effective compared to face-to-face therapy on decreasing depression and anxiety and on increasing mental well-being (Pots, Meulenbeek, Veehof, Klungers & Bohlmeijer, 2014; Stofle, 2001; Andersson et al., 2013). Moreover, interventions with online therapist support have been found to be more effective than unguided self-help interventions (Spek et al., 2007; Baumeister, Reichler, Munzinger & Lin, 2014). These findings indicate that *eMental Health* adds value and is an effective alternative or addition to traditional therapy.

One of the three common types of eMental Health—exercises and applications for support—comes in several different forms. The medium that can be supported can differ, ranging from a self-help book to an online intervention, a group intervention or a face-to-face intervention. The support can have the form of a chatroom, e-mail counseling, short message service reminders, video calling and many more. Some support formats have been shown to be effective, like for example a self-help book with e-mail support (Schotanus-Dijkstra et al., 2017) and guided web-based self-help acceptance and commitment therapy interventions (Pots et al., 2016; Fledderus, Bohlmeijer, Pieterse & Schreurs, 2012). However, it is unclear which components are crucial for the support to be effective. For example, a self-help book can be supported by e-mail counseling, but the role of specific behaviors of e-mail counselors in relation to the effectiveness of the intervention is not well understood yet.

1.3 Counselor Behavior in E-mail Support

Several counselor behaviors in face-to-face therapy have been associated with a reduction in psychopathological symptoms, such as *showing understanding* (Henry, Schacht & Strupp, 1990), *showing empathy* (Bohart, Elliot, Greenberg & Watson, 2002), *making interpretations* (Orlinsky, Grave, Parks, 1994), *offering self-disclosure*, *giving (mostly positive) feedback* and *repairing alliance rupture* (Norcross, 2010). Only a few studies have addressed such counselor behaviors in e-mail support. Paxling et al. (2013) investigated an online

cognitive behavior therapy (CBT) intervention for people with an anxiety disorder. They analyzed 490 e-mails from three counselors who supported 44 patients. Eight categories of the counselor behavior could be identified which are *deadline flexibility*, *task reinforcement*, *alliance bolstering*, *task prompting*, *psychoeducation*, *self-disclosure*, *self-efficacy shaping* and *empathetic utterances*. Results showed that *task reinforcement* (e.g. "You've described your worry thoughts in a good way") positively correlated with a reduction in anxiety symptoms whereas *deadline flexibility* (e.g. "You'll get another couple of days to finish the task") negatively correlated with favorable outcomes.

In another study by Holländare et al. (2016) an online version of CBT for depression was investigated which utilized 664 e-mails from five counselors to support 42 patients. In this study, nine categories of counselor behavior were determined which are *encouraging* (e.g. "Good of you to notice your own feelings in that situation!"), *affirming* ("Paying attention to, acknowledging and expressing an interest in, the patients' thoughts, emotions and actions and to deem them valid"), *guiding* ("Giving advice, informing or making suggestions), *urging* ("Urging the patient to do something"), *clarifying the internet treatment framework* ("Clarifying, emphasizing or reminding the patient about the internet treatment framework, and giving practical information about the project"), *informing about module content*, *emphasizing the importance of patient responsibility*, *confronting the patient* and *self-disclosure*. Three of the nine categories—*affirming*, *encouraging* and *self-disclosure*—positively correlated with a reduction in depressive symptoms.

In a master thesis by Matten (2016), the therapeutic behaviors in the e-mail support alongside a positive psychology self-help book were investigated with 351 e-mails from 40 participants. The study investigated the multicomponent self-help PPI *This is Your Life* which uses a self-help book that addresses the six core mental well-being components positive emotions, use of strengths, optimism, self-compassion, resilience and positive relations. Moreover, the PPI uses e-mail counseling to support the process of the intervention. This intervention has been shown to be effective on mental well-being (Schotanus-Dijkstra et al., 2017) and on the six mental well-being components (Schotanus-Dijkstra, Pieterse, Drossaert, Walburg and Bohlmeijer, submitted). Matten (2016) identified four categories of counselor behaviors which related to the content of the e-mails, the relationship between the counselors and the patients, the process of the intervention and the form of the e-mails. These categories were used to distinguish 14 counselor behaviors, with *positive reinforcement*, *encouraging* and *show understanding/empathy* turning out to be the most frequent behaviors. No correlation between the 14 behaviors and mental well-being could be detected. However, *encouraging* and

psychoeducation were positively correlated with satisfaction about the e-mail support. *Unclear, superficial, repetitive* was negatively correlated with satisfaction about the e-mail support. In sum, the findings of prior research about counselor behavior in e-mail support suggest that specific behaviors of counselors facilitate online treatment. Nevertheless, it remains unclear which specific counselor behaviors are related with a change in mental well-being in positive psychology interventions.

To address this gap of knowledge, the before mentioned study by Matten (2016) was used in the current study and replicated in the way that limitations are tackled. The study by Matten (2016) has several limitations. The study sample with data from 40 participants was small, which could explain that only few significant correlations were found. Moreover, the results did not correspond to the results from earlier studies about e-mail counseling (Holländare et al., 2016; Praxling et al., 2013). The creation of the coding scheme and the qualitative analysis were conducted by solely one researcher which increases the chance of researcher bias. In addition, no statement about the interrater reliability of the coding process was made. Furthermore, the study by Matten (2016) did not investigate the six core mental well-being processes positive emotions, use of strengths, optimism, self-compassion, resilience and positive relations, all of which are addressed in the multicomponent self-help PPI *This is Your Life.*

1.4 The Current Study

The aim of the current study is to qualitatively examine the e-mail messages of the multicomponent self-help PPI *This is Your Life* to identify counselor behaviors that have a significant effect on the increase of mental well-being. Therefore, the qualitative content analysis of the study by Matten (2016) was replicated in a larger sample. Moreover, the aim of the current study is to quantitatively examine which counselor behaviors in the multicomponent self-help PPI can be identified to influence the increase of mental well-being and the six core mental well-being components.

The research questions are:

1. Which specific counselor behaviors can be identified and how frequent do they occur in the e-mail correspondence?
2. How strong is the relationship between specific counselor behaviors and an increase in mental well-being of participants?

3. How strong is the relationship between specific counselor behaviors and an increase in the six mental well-being components positive emotions, using strengths, optimism, self-compassion, resilience and positive relations?

It is hypothesized that the 14 counselor behaviors from the study by Matten (2016) are identified in the e-mail correspondence. In addition, it is expected that the behavior *positive reinforcement* is most often coded, in accordance with Holländare et al. (2016), Matten (2016) and Paxling et al. (2013). Furthermore, a hypothesis is that counselor behaviors are significantly related to the effectivity of the intervention, like in the studies by Holländare et al. (2016) and Paxling et al. (2013). Lastly, it is hypothesized that especially the behavior *encourage* has a positive influence on the effectivity, as can be assumed from literature (Holländare et al., 2016; Matten, 2016).

2. Method

2.1 Study Design

This study uses qualitative and quantitative data from a previous parallel randomized controlled trial (RCT) about the effectiveness of the multicomponent positive psychology self-help course *This is Your Life* which was conducted in The Netherlands (Schotanus-Dijkstra et al., 2015; Schotanus-Dijkstra et al., submitted). The 275 participants of the RCT with low to moderate levels of mental well-being were randomly assigned to one of two groups: either to the intervention group that receives the self-help course with the book *This is Your Life* and e-mail counseling or to the wait-list control group. Online questionnaires were completed at baseline (T0), three (T1), six (T2) and twelve months after baseline (T3).

A qualitative content analysis is used in the current study to identify counselor behaviors in the e-mail contact between participants and counselors. Subsequently, quantitative data analysis is used to examine the relationship between the specific counselor behaviors and mental well-being, as well as between the counselor behaviors and the six mental well-being components. The specific counselor behaviors were the independent variables and the difference scores (T1-T0) of mental well-being and of the mental well-being components were used as dependent variables.

2.2 Participants

Participants in the RCT were recruited through advertisements in national newspapers and in an online psychology newsletter. 518 participants were assessed for eligibility out of which 275 participants were included in the RCT and randomized to the intervention group or the wait-list group. Excluded were participants with flourishing mental health, estimated with the Mental Health Continuum Short Form (MHC-SF, Keyes, 2006), participants with moderate or severe anxiety or depressive symptoms estimated with the Hospital Anxiety and Depression Scale (HADS > 10) (Spinhoven et al., 1997; Zigmond and Snaith, 1983), participants without completed screening questionnaires or baseline questionnaires and participants without valid e-mail addresses. 137 participants were allocated to the intervention group and 138 participants were allocated to the wait-list group. 15 of the 137 participants in the intervention group did not complete the three months assessment. 49 of the 137 participants declared to stop with the e-mail support or received three reminder mails causing the participants to drop out.

A random subsample of 92 participants out of the 137 participants from the intervention group was used for the current study (see Table 1). The participants were mainly female (88%), had an average of 49 years (SD=10.6), were mainly highly educated (77.2%) and of Dutch nationality (92.4%). Participants sent at least one e-mail to their counselor.

2.3 Intervention

The multicomponent self-help intervention aims to improve positive mental health by increasing mental well-being of the participants. The self-help book *This is Your Life* by Bohlmeier and Hulsbergen (2013) represents the main part of the intervention. It is a book that is based on positive psychology theories, such as the model of positive mental health by Keyes (2002) that distinguishes between social, emotional and psychological well-being. The book covers eight modules, each focusing on a different aspect of mental well-being. The six core mental well-being processes positive emotions, use of strengths, optimism, self-compassion, resilience and positive relations are integrated in the book. Each module begins with psycho-education wherein a certain topic (e.g. flow) is explained using underlying scientific theories and examples and ends with evidence-based positive psychology exercises. Table 2 shows an overview of the modules with the topic and examples of exercises of each module. A selection of exercises for each chapter was recommended for the participants and the other exercises were optional. The intervention lasted nine weeks, but the participants had eight to twelve weeks to complete the eight modules, working on one module per week (except from module two which was extended to two weeks) and practicing one or two exercises per week.

Table 1.

Demographics of the participants.

Category		n	%
Gender	Male	11	12.0
	Female	81	88.0
Age	25 – 34	12	13.0
	35 – 54	44	47.8
	55 – 70	36	39.1
Education	Low	3	3.3
	Medium	18	19.6
	High	71	77.2
Nationality	Dutch	85	92.4
	Other	7	7.6
Marital status	Married	44	47.8
	Single	27	29.3
	Separated/divorced	21	22.8
Employment status	Paid employment	67	72.8
	Unemployed/unable to work	19	20.7
	Retired/student/homemaker	6	6.5

Note. n = number of participants.

Participants sent weekly e-mails about the progress and experiences to their counselors and received weekly personal asynchronous e-mails from their counselors. The aim of the e-mail counseling was to increase adherence by motivating the participants to attend the course and to do the exercises. Thus, the counseling was mainly focused on the process and less on the content of the exercises. The counselors used motivational interviewing techniques such as paraphrasing, providing support and encouraging self-efficacy. They also gave tailored feedback on the progress of the participants, for example by using positive reinforcement for desired changes and providing instructions. Additionally, reminders were sent to inactive participants to encourage adherence. Counselors answered e-mails of the participants within two to three working days.

The counselors were five master students of psychology at the University of Twente who had previously attended a study-course and a one-day workshop on e-mail counseling. Additionally, they attended weekly supervision of a clinical psychologist and two lecturers. The counselors guided 25 participants each, with the remaining participants being guided by the

principal investigator of the study by Schotanus-Dijkstra et al. (2015). Participants sent on average 8.7 e-mails to their counselors (SD = 3.6), thus participants were supported by their counselors nine weeks on average. The wait-list control group of the intervention received the self-help book after the six months assessment. They did not receive e-mail counseling and were therefore not included in the current study.

Table 2.

Overview of the eight modules of *This is Your Life.*

Chapter	Module	Examples of exercises
1	Positive emotions	Diary of pleasurable emotions (Every day, noting down the pleasurable moments of that day and a description of these moments)
2	Using strengths	Discover your strengths (Answering questions about the own strengths; e.g.: "What are situations and activities in which you forget about time?")
3	Flow	Changing 'should' to 'want' (Making a list of things you do without pleasure and noting down why you are doing these things and which needs you fulfill with these activities; e.g.: "I chose to mow the lawn because I like to football with my son on the lawn in the garden.")
4	Optimism	Best possible self (Imagining your best possible future-self and visualizing how your life would look like)
5	Self-compassion	Wish yourself something good (Asking yourself about your current need and wishing the fulfilment of it for yourself through repeatedly saying it to yourself)
6	Resilience	Patterns in coping (Ticking how often you use different coping patterns that are shown on a list)
7	Positive relations	Express gratitude (Writing a letter to someone to whom you are grateful)
8	Spirituality	Grounding exercise (Giving attention to your body while standing and making a move like a jump without jumping.)

2.4 Materials

The current study used data of a study by Schotanus-Dijkstra et al. (2016) and a study by Matten (2016). An atlas.ti file by Schotanus-Dijkstra et al. (2016) with e-mail conversations

between 137 participants and their counselors was utilized. E-mail messages were completely anonymous to the researchers using random symbols instead of names that could identify participants or counselors. Moreover, the coding scheme by Matten (2016) was used, which is shown in Appendix A. In addition, an IBM SPSS data set by Schotanus-Dijkstra et al. (2016) was used, which presented the demographics of the participants and the scores on the questionnaires at baseline (T0) and three months after baseline (T1).

2.5 Procedure

The counselor e-mails from five randomly selected conversations were read and coded by two researchers independently, using and adjusting the coding scheme developed by Matten (2016). This coding and adjusting was structured in six steps. 1) The researchers independently coded one conversation, 2) then two additional and 3) then three additional conversations. In between, they discussed with each other how to adjust the coding scheme and revised the coding of the already coded conversations. 4) The researchers calculated the interrater reliability of the five coded conversations, adjusted the coding scheme again and revised the coding of the conversations. 5) The interrater reliability was calculated again and 6) the coding scheme was adjusted one last time after the coding of all 92 conversations. The six steps are explained in detail below.

At first, after independently coding one e-mail conversation, the researchers decided to add the codes *summarize* and *paraphrasing*, to split the code *unclear, superficial and repeating* into two codes and to define a coding fragment. The code *summarize* was added because some counselors used to summarize parts of the e-mails of the participants. Moreover, the code *paraphrasing* was added, because many counselors briefly reflected parts of the previous e-mail of a participant. The code *unclear, superficial and repeating* was split into *unclear and superficial* and *repeating* because the *repeating* text fragments were clearly distinguishable from the *unclear and superficial* text fragments. Moreover, the researchers discussed that each coding fragment can differ in size, ranging from some words to multiple sentences. This decision implies that codes can appear more times in one e-mail, whether it is the same code or different ones. Furthermore, it was discussed that the same code can appear directly behind each other, if a new topic is addressed. How exactly a topic should be defined, was not discussed yet.

After having coded two additional conversations independently, the researchers decided to delete the codes *average number of words per mail*; *summarize* and *repeating* and to adjust the definition of the code *improve working relationship*. The code *average number of words*

per mail was deleted because this code does not represent a behavior of a counselor. The part "make friendly social expressions towards the participant" was added to the definition of the code *improve working relationship* because the researchers could not exactly retrieve from the previous definition, if expressions like for example "Thank you for your reaction" should be coded as *improve working relationship*. In addition, the codes *summarize* and *repeating* were deleted from the coding scheme, because the researchers discovered how similar these codes to the code *paraphrasing* are and that it is too unclear how to distinguish between them. The *summarizing* text fragments can also be seen as a way of paraphrasing, which makes the code *summarizing* unnecessary.

Thereafter, the researchers coded two additional conversations. Then, they calculated the interrater reliability with Cohen's kappa for each code. They did this, by coding the five prior mentioned randomly selected conversations by two independent raters. The coding has a moderate interrater reliability if the value of Cohen's kappa is between 0.50 and 0.70; the reliability is good if the value of kappa is between 0.70 and 0.80 and the reliability is excellent if the value of kappa is higher than 0.80. It was decided that the coding should be at least moderate, using the cut-off point 0.50. Because the values of Cohen's kappa had turned out to be low and mostly under the cut-off point ($k < 0.50$), the coding was discussed again.

The researchers decided to adjust the definitions of the codes *positive reinforcement* and *encourage*, to delete the code *dropout*, to pay more attention to language mistakes and unclear fragments, and to define a coding fragment in more detail. The definition of the code *positive reinforcement* was expanded with "[…reinforce positive behavior] in the past" and of the code *positive reinforcement* with "[…show explicit interest in] future results" to make the difference in time reference between these two codes more clear. Social expressions were included in the definitions of both codes because, for example, statements like "Thank you for your reaction" can also reinforce positive behavior. The researchers deleted the code *dropout* from the coding scheme, because this code does not relate to a behavior of a counselor. It was also discussed to pay more intention to language and grammar mistakes and to unclear and superficial text fragments, because these codes were overlooked easily. The researchers defined a coding fragment in more detail by deciding how one topic can be distinguished. A topic is related to the discussion of one intervention exercise. If a counselor's e-mail was not divided into the discussion of the different exercises, a topic should be defined as, for example, what worked well and another topic for what did not work well for the participant.

Cohen's kappa was calculated for each code again. The codes *insight-giving questions* ($k = 1.00$), *emphasize autonomy* ($k = 0.95$) and *inform about the course* ($k = 0.90$) showed the

highest values of Cohen's kappa. Out of the codes that have been coded at least once, the code psychoeducation showed the lowest Cohen's kappa value (k = 0.50), which indicates that none of the values is lower than the cut-off point of 0.50 (every k > 0.50). The codes *unclear, superficial* and *reminder e-mail* were not coded at all in these five conversations.

After coding all 92 conversations, which include 796 e-mails in total, the researchers decided together to change the definition of the code *psychoeducation*, because it showed the lowest interrater reliability. They decided to delete the part "amplify objectives and content aspects of the course" from the definition, because this description fits more the code *inform about the course*. The part "provide personal advice on situations that the participant encounters" was added to *psychoeducation* to be more explicit about personal advices in the coding scheme. The final coding scheme consists of 13 codes (Table 3). An extended version of the coding scheme with examples of codes can be seen in Appendix B.

2.6 Outcome Measures

The primary outcome of the current study was mental well-being and the secondary outcomes were positive emotions, use of strengths, optimism, self-compassion, resilience and positive relations. Mental well-being was measured with the self-report questionnaire Mental Health Continuum–Short Form (MHC-SF, Keyes, 2006). This questionnaire consists of 14 items about emotional, social and psychological well-being which are answered on a 6-point scale from 0 (never) to 5 (almost always). A mean score for the total scale was calculated. A higher score indicates a higher level of mental well-being. The Dutch version of the MHC-SF has been shown good psychometric properties and good reliability and validity (Lamers, Westerhof, Bohlmeijer, ten Klooster & Keyes, 2011).

Positive and negative emotional states were measured with the 28-item Modified Differential Emotions Scale (m-DES, Zigmond & Snaith, 1983). Positive emotions stem from the broaden-and-build theory by Fredrickson (1998, 2001). Gratitude and savoring exercises are examples to facilitate positive emotions and by that stimulating the broaden-and-built effect. The m-DES uses a 7-point scale from 1 (not at all) to 7 (very intense) to estimate eight groups of positive emotions and eight groups of negative emotions. The m-DES showed satisfactory reliability levels (Galanakis, Stalikas, Pezirkianidis & Karakasidou, 2016).

To assess the use of strengths of participants, the 14-item Strength Use Scale (SUS) was used (Govindji & Linley, 2007). Using strengths enhances confidence and intrinsic motivation which in turn can have positive effects on mental well-being and perseverance to achieve goals (Hiemstra & Yan Ypres, 2012; Linley, Nielsen, Gillet & Biswas-Diener, 2010). The construct

resembles competence which refers to the self-determination theory (Deci & Ryan, 2000). Items of the SUS are rated on a 7-point scale (1 = strongly disagree, 7 = strongly agree). The SUS has shown long-term stability and high internal consistency (Wood, Linley, Maltby, Kashdan & Hurling, 2011).

Optimism was assessed with the Life Orientation Test-Revised (LOT-R) that has ten items (Scheier, Carver & Bridges, 1994). Optimism can be considered a generalized positive outcome expectation and an attributional style (Rius-Ottenheim, Mast, Zitman & Giltay, 2013). An example of an exercise is *The Best Possible Self* which receives growing evidence (Peters et al., 2010). The LOT-R consists of a 5-point scale from 0 (strongly disagree) to 4 (strongly agree). Four filler items were excluded from the analysis, so that a total sum score of six items was calculated. The LOT-R has proven to possess predictive and discriminant validity (Scheier, Carver & Bridges, 1994).

The Self-Compassion Scale-Short Form (SCS-SF) measures self-compassion which is a positive self-directed attitude in times of difficulty and which is composed of the three components self-kindness, common humanity and mindfulness (Neff, 2003). These components mean being understanding and kind to oneself, recognizing that experiencing problems is human and consciously accepting own feelings and thoughts without judgement. Mindfulness and loving-kindness meditation are examples of self-compassion exercises (Fredrickson, Cohn, Coffey, Pek & Finkel, 2008; Neff & Germer, 2013). The twelve items of the SCS-SF are rated on a 7-point scale ranging from 1 (rarely or never) to 7 (almost always). The total sum score ranges from twelve to 84. The SCS-SF possesses good psychometric properties (Raes, Pommier, Neff & Van Gucht, 2011).

The Brief Resilience Scale (BRS, Smith et al., 2008) assesses resilience which means successfully dealing with difficult experiences and transforming these setbacks into personal growth (Seligman, 2011). Active coping is an exercise that can be used to increase resilience (Joseph, 2011). The BRS contains six items and can be rated on a 5-point scale ranging from 1 to 5 (strongly disagree – strongly agree). Total mean scores from 1 to 5 were computed. The BRS has shown good psychometric properties (Smith et al., 2008).

Positive relations were measured with the original Subscale of Positive Relations (SPR, Ryff, 1989). According to Ryff and Singer (1998), positive relations are trustful and warm relationships which are characterized by the capacity for intimacy, empathy and affection. Active listening exercises and doing acts of kindness can enhance positive relations (Bohlmeijer et al., 2015). The SPR has nine items with a 6-point scale from 1 (strongly disagree) to 6 (strongly agree).

2.7 Analysis

The Statistical Package for the Social Sciences (IBM SPSS) version 23 was used to analyze the quantitative and qualitative data. For the descriptive statistics, the means (*M*) and the standard deviations (*SD*) of the individual codes per e-mail conversation were calculated. Moreover, the minimum and maximum frequency of a code per conversation were determined. In addition, it was identified how often the individual codes were assigned in all e-mail conversations (n) and the percentage of how often one code appears in all e-mail conversations in relation to the other codes (%).

Table 3.

Coding scheme.

Category	Code	Definition
Content	Positive reinforcement	Reward the participant for his/her progress; reinforce positive behavior in the past; social expressions that reward positive behavior
	Insight-giving questions	Ask questions that make the participants think about and stimulate new insights
	Unclear, superficial	Describe tasks imprecisely what makes it difficult for the participant to understand the intention; superficially responding to the participant
	Paraphrasing	Reflect briefly and in your own words the most important of what the participant has said
	Psychoeducation	Provide information on (positive) psychological processes and provide personal advice on situations that the participant encounters
	Encourage	Encourage the participant to perform a particular task and/or show explicit interest in future results of the assignments and/or make social expressions that encourage the participant
Relation	Show understanding/empathy	Commiserate with the participant; show that one can understand the participant; give a reflection of feelings
	Improve working relationship	Not specifically course-related comments that express an interest in the participant and/or show that the writer attaches importance to the relationship; make friendly social expressions towards the participant
	Emphasize autonomy	Express that the participant is responsible for his/her own choices
Process	Deadline flexibility	Provide more time for the participant to complete assignments or modules
	Inform about the course	Inform about the following modules and contents of the modules; give practical information about the course
	Reminder e-mail	Remind the participants of completing certain exercises or of sending an e-mail if this has not happened in time
Form	Language and grammar mistakes	Spelling mistakes, typing errors, language mistakes, grammatical errors, wrong sentence structure

The relationship between the specific counselor behaviors and the difference scores of the well-being questionnaire was analyzed. To calculate the difference scores, the baseline data were subtracted from the post-test data, which have been measured three months after baseline (T1-T0). The higher the difference score, the larger the improvement of mental well-being. To identify whether the improvement is significant, a paired-samples t-test was used. The relations were examined by computing the Spearman's rho correlation. The more frequently a code occurs and the higher the increase in mental well-being, the higher is the correlation between these two variables.

Thereafter, the relationships between the specific counselor behaviors and the difference scores of the questionnaires that measure positive emotions, the use of strengths, optimism, self-compassion, resilience and positive relations were analyzed. The difference scores were measured in the same way as the well-being difference scores (T1-T0). The higher the scores, the larger the improvement of the individual mental well-being components. The significances of the improvements were again identified by paired-samples t-tests. The relations were also calculated with the Spearman's rho method. The more frequently a code occurs and the higher the increase in a mental well-being component, the higher is the correlation.

3. Results

3.1 Counselor Behavior

Twelve of the 14 counselor behaviors from the study by Matten (2016) have been used in the current study and one code has been added. In the 92 coded e-mail conversations, codes have been assigned 9355 times. The codes *positive reinforcement* (n = 1980), *paraphrasing* (n = 1937) and *improve working relationship* (n = 1766) were most frequently coded, as shown in Table 4. The codes *unclear, superficial* (n = 17), *reminder e-mail* (n = 66) and *language and grammar mistakes* (n = 85) were least frequently coded (n = 17). *Paraphrasing* is the behavior that was most frequently coded in one e-mail conversation with 61 times (see Table 4).

Table 4.

Mean, minimum and maximum frequency of a counselor's behavior per e-mail conversation; number of assigned codes in the 92 e-mail conversations (*n*) and percentage of the frequency of assignments of a single code in relation to the other codes (%).

Category	Code	*M* (*SD*)	Minimum	Maximum	*n*	%
Content	Positive reinforcement	21.52 (13.01)	0	53	1980	21.17
	Insight-giving questions	5.60 (4.00)	0	17	515	5.51
	Unclear, superficial	0.18 (0.47)	0	2	17	0.18
	Paraphrasing	21.05 (14.19)	0	61	1937	20.71
	Psychoeducation	21.52 (13.01)	0	53	203	2.17
	Encourage	11.59 (6.46)	0	31	1066	11.39
Relation	Show understanding/empathy	4.89 (3.74)	0	17	450	4.81
	Improve working relationship	19.20 (9.20)	1	38	1766	18.88
	Emphasize autonomy	2.36 (2.25)	0	11	217	2.32
Process	Deadline flexibility	1.29 (1.43)	0	5	119	1.27
	Inform about the course	10.15 (5.60)	0	25	934	9.98
	Reminder e-mail	0.72 (1.18)	0	5	66	0.71
Form	Language and grammar mistakes	0.92 (1.20)	0	5	85	0.91

Note. *M* = mean; *n* = number of cases; *SD* = standard deviation.

3.2 Improvement on Mental Well-being and its Components

To examine the participants' improvement on mental well-being and the mental well-being components throughout the intervention, the average difference scores of participants on mental well-being, positive emotions, using strengths, optimism, self-compassion, resilience and positive relations were calculated. Significant differences in the scores of the baseline data in comparison to the scores of the post-test data were detected for all outcome measures (Table 5). The average difference score of every outcome measure is positive, indicating that the level of mental well-being and of the mental well-being component have increased among participants (Table 5).

Table 5.

Means of the baseline data and the post-test data, average difference scores of the participants and significance and probability of the difference in scores.

Outcome Measure	*M* (*SD*) T0	*M* (*SD*) T1	Difference (*SD*)	*t*	*p*
Mental well-being	2.55 (0.64)	3.08 (0.65)	0.53 (0.53)	-9.68	<0.001
Positive emotions	3.50 (0.76)	3.85 (0.70)	0.35 (0.82)	-4.15	<0.001
Use of strengths	63.08 (14.10)	69.77 (13.95)	6.69 (11.08)	-5.80	<0.001
Optimism	13.88 (3.64)	15.03 (3.59)	1.15 (3.01)	-3.66	<0.001
Self-compassion	45.17 (9.83)	51.03 (9.58)	6.77 (8.23)	-7.90	<0.001
Resilience	2.82 (0.63)	3.15 (0.72)	0.32 (0.46)	-6.80	<0.001
Positive relations	36.96 (7.30)	40.02 (7.18)	3.06 (4.18)	-7.02	<0.001

Note. *M* = mean; *p* = probability-value; *SD* = standard deviation; *t* = *t*-value of a paired-samples t-test; T0 = baseline data; T1 = three months after baseline.

3.3 Counselor Behavior and Mental Well-being

To define the relationship between specific behaviors of the counselors and an increase in mental well-being of participants, a bivariate Spearman correlation was conducted (Table 6). Results showed that no correlation with mental well-being was statistically significant, with the *p*-values ranging between 0.182 and 0.911. Thus, none of the counselor behaviors were related to an increase in mental well-being.

Table 6.

Bivariate Spearman's rho correlations between the average number of counselor behaviors per e-mail conversation and the difference scores (T1-T0) of the outcome measures.

Category	Code	Δ Mental well-being	Δ Positive emotions	Δ Use of strengths	Δ Optimism	Δ Self-compassion	Δ Resilience	Δ Positive relations
Content	Positive reinforcement	.02	.01	.25	.17	.22*	.14	.13
	Insight-giving questions	-.02	.01	.17	.14	.09	-.01	.07
	Unclear, superficial	.07	-.18	.07	.09	.14	-.08	-.10
	Paraphrasing	.01	.07	.30**	.15	.19	.15	.12
	Psychoeducation	-.14	.04	.01	.10	-.02	-.06	-.01
	Encourage	.02	.01	.24*	.11	.24*	.06	.07
Relation	Show understanding/empathy	.02	.11	.12	.07	.13	-.01	.07
	Improve working relationship	.02	-.02	.25*	.16	.14	.16	.10
	Emphasize autonomy	-.11	-.12	-.01	.023	.00	-.09	-.12
Process	Deadline flexibility	.08	.14	.04	.19	.10	.25*	-.05
	Inform about the course	-.08	.10	.31**	.14	.16	.09	.09
	Reminder e-mail	-.06	.19	-.20	-.01	-.21*	.20	-.13
Form	Language and grammar mistakes	-.07	-.13	.02	.12	.06	.19	.10

Note. * = Correlation is significant at the 0.05 level (2-tailed); ** = Correlation is significant at the 0.01 level (2-tailed); Δ = Increment of change.

3.4 Counselor Behavior and the Mental Well-being Components

Table 6 shows all correlations between the counselor behaviors and the outcome measures. Solely three of the outcome measures show significant correlations with some of the counselor behaviors, which are the use of strengths (four correlations), self-compassion (three correlations) and resilience (one correlation). Mental well-being itself had no significant correlation with any of the counselor behaviors. Seven of the 14 counselor behaviors correlated significantly with one or two of the outcome measures, which are *positive reinforcement, paraphrasing, encourage, improve working relationship, deadline flexibility, inform about the course* and *reminder e-mail*. All other correlations were not statistically significant (p between 0.054 and 0.970). *Encourage* is the only code that significantly correlated with two outcome measures. The more the counselors encourage the participants, the more the use of strengths (ρ = .24; p = 0.019) and self-compassion (ρ = .24; p = 0.022) of the participants increases. Moreover, the outcome measure use of strengths had most of the significant correlations with counselor behaviors. The more paraphrasing (ρ = .30; p = 0.003), improving the working relationship (ρ = .25; p = 0.016) and informing about the course (ρ = .30; p = 0.003) is applied by the counselor, the more the use of strengths of the participants increases. All correlations are weak (ρ < 0.50), according to Cohen's guidelines (1988).

4. Discussion

4.1 Most Important Findings

Transparency about effective components of online support for psychological treatment is lacking. Therefore, this study investigated the counselor behaviors in an e-mail support of a self-help intervention. Two hypotheses could be confirmed and two were rejected. Twelve of the 14 codes from the study by Matten (2016) have been assigned in the current study because two of them could not be identified as counselor behaviors. Counselors were found to positive reinforce, paraphrase and improve the working relationship frequently. As hypothesized, the code positive reinforcement was most often used by the counselors. Less frequently, the counselors responded unclear and superficial, sent reminder e-mails and made language and grammar mistakes. The level of mental well-being and the individual well-being components significantly increased among participants during the intervention. It can be assumed that the intervention in combination with the e-mail counseling was effective. It was contradictory that no statistically significant correlation between the counselor behaviors and an increase in

mental well-being could be identified, but that some counselor behaviors were significantly related with some mental well-being components. The hypothesis can be confirmed that especially encouraging was related to the outcome, because it was associated with an increase in the use of strengths and self-compassion. Another interesting finding is that the mental well-being component use of strengths has the most significant correlations with counselor behaviors.

4.2 Counselor Behaviors

The hypothesis can be confirmed that the behavior positive reinforcement was most often coded, which corresponds to the findings by Paxling et al. (2013) about the treatment of anxiety disorders, Holländare et al. (2016) about the treatment of depression and Matten (2016). Also, other formats of online support have been shown to use positive reinforcement, like for example online groups to provide support for Asian American men (Chang & Yeh, 2003) and the interaction with Web-activated patients (Wald, Dube & Anthony, 2007). This concordance shows that positive reinforcement is a counselor behavior that occurs in different forms of support. The code *paraphrasing* has been the second most often coded behavior despite that we added this code to the coding scheme by Matten (2016). This finding also stays in contrast to previous studies by Paxling et al. (2013) and Holländare et al. (2016), which did not identify *paraphrasing* as a counselor behavior. However, the definition of the *repeating* part of the code *unclear, superficial, repeating* by Matten (2016) seems to be similar to the definition of the code *paraphrasing*. Therefore, Matten (2016) possibly coded text fragments as negative elements whereas we coded the same fragments as positive elements. Moreover, the code *affirming* by Holländare et al. (2016) seems similar to *paraphrasing* as well because *affirming* is defined as "[…] acknowledging […] the patients' thoughts, emotions and actions […]". Thus, although the code *paraphrasing* did not appear literally in previous studies, it has been examined in different forms before.

The codes that were most often assigned are significantly related to the outcome measures in comparison to the least assigned codes. Only the two codes *reminder e-mail* (0.71%) and *deadline flexibility* (1.27 %) have not often been assigned, but are still significantly related to an increase in respectively self-compassion and resilience. According to Baumeister et al. (2014), guided Internet-based interventions are significantly more effective than unguided interventions. It seems possible that the more counseling behaviors are applied in the current study, the more correlations can be found, which would indicate that the e-mail counseling of

the current study had an added value to the intervention's effectivity to increase some mental well-being components, although a statistical analysis would be necessary to conclude this.

The behaviors *unclear, superficial, reminder e-mail* and *language and grammar mistakes* were least often coded. In contrast to the findings by Matten (2016), *unclear, superficial, repeating* was approximately in the middle of the ranking. This decrease in coding frequency probably occurred because the *repeating* part of this code was deleted on the current coding scheme and the similar code *paraphrasing* was added. The fact that the three most negative codes of the current coding scheme were least frequently coded shows that the counseling was performed well.

4.3 Counselor Behaviors and Mental Well-being

The current study demonstrated that none of the counselor behaviors were related to an increase in mental well-being. The results of the study by Matten (2016) did also not find a correlation between the counselor behaviors and the effectivity of the treatment. These findings do not fit to the results of the studies by Paxling et al. (2013) and Holländare et al. (2016), which indicated significant correlations between counselor behaviors and the effectivity of the treatments. The studies by Paxling et al. (2013) and Holländare et al. (2016) investigated online CGT courses, in which the counselors predominantly gave feedback regarding content. In the current study, however, the counselors were concentrating on motivating the participants to follow the course. Thus, it seems that the support with the focus on giving feedback regarding content affects the effectiveness of the treatment more than the support that is focusing on motivating the patients, although a direct comparison between different types of feedback is necessary to draw such a conclusion.

Although none of the counselor behaviors were related to an increase in mental well-being, some behaviors had a significant relationship to an increase in certain mental well-being components. Mental well-being is a complex concept which consists of emotional well-being with two basic dimensions, psychological well-being with six basic dimensions and social well-being with five basic dimensions (Bohlmeijer et al., 2015). The current findings suggest that single counselor behaviors seem to associate to certain parts of mental well-being but not to others and therefore also not to the overall concept of mental well-being. A counselor behavior that seems to be relevant is encouraging, because it was related to the increase of the use of strengths and self-compassion. This indication fits to the findings by Holländare et al. (2016) and Matten (2016) that encouraging is positively related to the effectivity of interventions. Other interventions have been shown to effectively encourage their participants to build their

strengths, like for example The Individual Strengths Assessment (Linley & Burns, 2010) and the Strengths Gym (Proctor, 2011). Encouragement has also been a major social support theme for a large Internet weight loss community (Hwang et al., 2010). It seems that the counselor behavior encouraging influences different outcome measures, under which depression, anxiety, weight loss, self-compassion and the use of strengths. This might be relevant for follow-up research and for the development of future treatments. Another assumption of the current study is that the counselor support is especially important for the well-being component use of strengths. Using strengths means identifying the own strengths and having the opportunity and competence to use these strengths (Wood et al., 2011). The counselor behaviors seem to especially address these aspects. The strongest correlations with the use of strengths were found with paraphrasing and informing about the course. What kind of information you get determines how competent you feel (Reeve, Olson & Cole, 1987). If the participants get more information about the course, they might get the opportunity and the competence to use the course and thereby their strengths. When participants of the current study read paraphrases of what they have written before, they might get the opportunity to identify the own strengths in a better way, by reading a reflection of their own writing (Lang & Molen, 2014).

The named assumptions can be relevant for the design of new positive psychology interventions, which may contemplate laying more focus on encouraging the participants and the support of counselors to enhance the clients' use of strengths, although follow-up research is needed on this aspect, because the correlations were significant but weak. Although some correlations have been found, the findings of the current study showed that counselor behaviors seem to be slightly relevant for the improvement of mental well-being and its components and that counselor support seems to have little influence on the effectivity of the self-help positive psychology intervention *This is Your Life*.

4.5 Strengths and Limitations

The current study is one of the first studies that investigated counselor behaviors in e-mail support, especially in an intervention aimed at increasing mental well-being. Therefore, this study represents an important contribution to this field. Especially the relationship between the counselor behaviors and the separate well-being components has not been investigated before. Moreover, the coding scheme by Matten (2016) has been examined and improved. Future research can therefore use and build on the findings of this study. The sample size with 92 participants of the current study is considerably larger than the sample by Matten with 40 participants, that has partially been replicated. This improvement makes it more likely that

existing correlations between counselor behaviors and outcome measures have actually been found. Moreover, the adjustment of the coding scheme by Matten (2016) has been conducted by two researchers to reduce researcher bias. The interrater reliability for the coding scheme has been investigated, assuring that the coding of the e-mails is comprehensible. Thereby, the reliability of the current study was increased.

The current study has also some limitations. First, the study is correlational, which means that no statement about a causal relationship can be made. Thus, it is possible that informing about the course lead to a higher use of strengths, but it might also be possible that those participants who made more use of their strengths had asked more questions about the course which the counselors answered. In addition, the results of the current study are only to a limited extent generalizable. The counselors of the e-mail support in the current study had only little experience, which makes it possible that their support is different to more experienced counselors. However, only a few negative codes have been found in the current study, which might indicate that the counseling was well performed. Besides, some of the current results do not correspond to the results from previous studies about online CGT courses. Thus, the results are only limited generalizable to other treatments and other counselors.

4.6 Implications

Future research can build on the findings of the current study that contribute to a new research field. Because the findings of the current study are to a limited extent generalizable to other treatments and counselors, it seems to be an important direction to investigate counselor behaviors in e-mail support within different treatment types, with different counselors and for different target groups. It would be interesting to investigate whether the results would change if the counselors were more experienced. Follow-up research should additionally investigate if other results emerge when examining the long-term effects of the counselor support, for example at six or twelve months after baseline (T2-T0 or T3-T0). It is possible that the effects of the counselor behaviors are not directly observable but solely after some time. Moreover, the causality of the identified correlations should be investigated, to find out whether the counselor behaviors effect the increase in outcome measures or the other way around. In addition, it should be investigated whether a connection exists between the frequency of counselor behaviors and the frequency and strength of correlations with outcome measures, which would indicate that counselor support in general is related to the effectivity of the intervention. The different findings of the current study in comparison to previous studies could indicate that e-mail counseling is not equally important in all forms of online treatment. This would have a

large impact for the development of future online treatments, because costs and time could be saved, if the counseling does not have any added value in some forms of treatment. In addition, those counselor behaviors that are helpful for some outcomes can be fostered and used more extensive to further treatment. To reach this, it is necessary to carry out some follow-up research.

4.7 Conclusion

The current study shows that specific counselor behaviors of an online support for a self-help intervention to increase mental well-being do not correlate to the total mental well-being of the participants but it did relate to some specific mental well-being components. The findings suggest that counselor support might have little additional relevance for the effectivity of a self-help intervention to increase mental well-being. Direct comparisons between support types or intervention types are needed to determine the supplemental effect of e-mail support to a self-help intervention. A valid coding scheme was presented that may be used for similar positive psychology interventions.

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Appendices

Appendix A

Table A1

Coding Scheme by Matten (2016) in Dutch

Categorie	Code	Definitie
Inhoud	Positieve versterking	De deelnemer belonen voor zijn/haar vooruitgang, positief gedrag versterken
	Inzichtgevende vragen	Vragen stellen die de deelnemer aan het denken zetten en nieuwe inzichten bevorderen
	Onduidelijk, oppervlakkig, herhalend	Opgaven te vaag beschrijven, zodat het moeilijk voor de deelnemer is om te begrijpen wat de bedoeling is, inhoudelijk alleen oppervlakkig op de deelnemer ingaan, dezelfde zin in een email of in op elkaar volgende email herhalen
	Psycho-educatie	Informatie geven over psychologische processen, doelen en aspecten van de cursus nader uitleggen
	Stimuleren	De deelnemer aansporen om een bepaalde taak uit te voeren en/of expliciet interesse aan de resultaten van de opgaven tonen
Relatie	Begrip/empathie tonen	Met de deelnemer meevoelen, laten zoen dat men de deelnemer kan begrijpen, een gevoelsreflectie geven
	Werkrelatie verbeteren	Niet specifiek op de cursus gerichte opmerkingen die een interesse aan de deelnemer uitdrukken en/of die laten zien dat de schrijver waarde aan de relatie hecht
	Autonomie benadrukken	Uitdrukken dat de deelnemer zelf verantwoordelijk voor zijn/haar eigen keuzes is
Proces	Deadline flexibiliteit	De deelnemer meer tijd geven om opgaven of modules af te ronden
	Informeren over de cursus	Over de volgende modules en de inhoud van de modules informeren. Praktische informatie over de cursus geven.
	Reminder e-mail	De deelnemer herinneren aan het afronden van bepaalde oefeningen of het sturen van een email als dit niet op tijd is gebeurd

	Uitval	De deelnemer is eerder met de cursus gestopt
Vorm	Taal- en grammaticafouten	Spel-, type-, taal- en grammaticafouten, verkeerde zinsbouw
	Gemiddeld aantal woorden per bericht	Het gemiddeld aantal woorden per bericht, zonder aanhef en afsluiting, reminder e-mails worden niet meegeteld

Appendix B

Table B1

Coding Scheme with Examples

Category	Code	Definition	Examples
Content	Positive reinforcement	Reward the participant for his/her progress; reinforce positive behavior in the past; social expressions that reward positive behavior	„Het is fijn dat je het allemaal zo duidelijk verwoordt." „Bedankt voor je mail."
	Insight-giving questions	Ask questions that make the participants think about and stimulate new insights	„Waar denk je zelf dat dit mee te maken kan hebben?"
	Unclear, superficial	Describe tasks imprecisely what makes it difficult for the participant to understand the intention; superficially responding to the participant	„Voor hoofdstuk 3 staan de oefeningen ..... op de agenda." „Je schrijft dat je 4 uur per week te weinig vindt voor de oefeningen. Het is prima als je meer tijd wil besteden aan de oefeningen."
	Paraphrasing	Reflect briefly and in your own words the most important of what the participant has said	„Je geeft aan dat het maken van de oefeningen je ervan bewust heeft gemaakt dat je voornamelijk bezig bent met wat er niet goed gaat. Je vertelt over een innerlijke criticus in je hoofd die je vooral neerhaalt."
	Psychoeducation	Provide information on (positive) psychological processes and provide personal advice on situations that the participant encounters	„Al gaat het nu nog niet automatisch, dat je er aan denkt en het regelmatig uitvoert zal er uiteindelijk voor zorgen dat het wel een automatisme wordt. En dat geldt uiteraard voor andere oefeningen die helpend voor je zijn." „Een quote die mij vaak helpt te relativeren is: "Als je een probleem blijft zien als een probleem, dan blijft het een probleem. Zie het als een kans om te groeien." Wellicht kan het voor jou ook iets betekenen."
	Encourage	Encourage the participant to perform a particular task and/or show explicit interest in future results of the assignments and/or make social expressions that encourage the participant	„Het zou mooi zijn als je de oefeningen na een tijdje kan inbedden in je dagelijks leven." „Hoe is dat verder gegaan? Heb je hoofdstuk 3 nog wel gemaakt?"

			„Ik ben benieuwd hoe je het maken van de eerste oefeningen zult ervaren en naar je bevindingen hierover.”
Relation	Show understanding/empathy	Commiserate with the participant; show that one can understand the participant; give a reflection of feelings	„Dat is jammer om te lezen.” „Ik kan me voorstellen dat dit vermoeiend voor je kan zijn en dat erken je ook.”
	Improve working relationship	Not specifically course-related comments that express an interest in the participant and/or show that the writer attaches importance to the relationship; make friendly social expressions towards the participant	„Leuk om te lezen dat je er leuke gesprekken over hebt!” „Ik kijk uit naar je mail hierover.” „Ik wens je veel succes en een fijne week toe.”
	Emphasize autonomy	Express that the participant is responsible for his/her own choices	„Wanneer een opdracht wat eentonig wordt kan je er ook voor kiezen om een andere opdracht te doen die je wellicht wat meer aanspreekt.”
Process	Deadline flexibility	Provide more time for the participant to complete assignments or modules	„Binnen de cursus is voldoende ruimte ingebouwd om de planning een keer wat op te schuiven.”
	Inform about the course	Inform about the following modules and contents of the modules; give practical information about the course	„De oefeningen van de eerste week zullen gaan over het ervaren van plezierige emoties.” „Deze kun je me vanaf zondag toesturen. Ik zal altijd op woensdag terug reageren.”
	Reminder e-mail	Remind the participants of completing certain exercises or of sending an e-mail if this has not happened in time	„Hoe is het met je? Ik heb deze week nog geen e-mail van je ontvangen. Ik zou het wel prettig vinden om elke zondag of maandag een berichtje van je te ontvangen. Ook al heb je een week misschien niets of niet zoveel kunnen doen. Mogelijk kan ik met je meedenken en je eventueel helpen bij bepaalde oefeningen. Zou je me een berichtje willen sturen? Alvast heel erg bedankt.”
Form	Language and grammar mistakes	Spelling mistakes, typing errors, language mistakes, grammatical errors, wrong sentence structure	„k hoop dat je aan de hand van zelfhulpcursus de stappen zet op je doelen te bereiken en wens je succes bij het maken van de eerste oefeningen. wens je veel succes met de oefeningen uit hoofdstuk 1.”