On the tracks of the ‘Happiness Route’: demystifying the obscure world of counselor logbooks

Master Thesis
Positive Psychology
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I dedicate this to

Peter & Charlotte,

Mary & Dieter,

and my wonderful friends from Enschede.

Wishing each of you your own

Route of Happiness.

Abstract

Introduction: This study explored the black box of the 'Happiness Route', a happiness-based positive psychology intervention for people predominantly suffering from loneliness, often as consequence of a chronic disease. A higher degree of the counselors' adherence to the intervention protocol as well as a *happiness-oriented* as opposed to a *problem-oriented working style* was thought to have beneficial effects on people's well-being.

Method: The investigated variables were: the participants' *motivation*, their level of *trust* bond to a counselor and the degree to which the participants found their *passion* through the intervention. All variables were assessed by the counselors. A total of N = 22 counselors attended to N = 34 participants in the Happiness Route condition, whereas N = 11 counselors attended to N = 37 participants in an active care as usual (CAU) control condition. The effect of protocol adherence and *working styles* respectively on all three investigated variables was examined within the Happiness Route condition. Finally, the two conditions were compared in regard of the participants' *motivation* and their level of *trust* bond to a counselor.

Results: Univariate analyses of variance revealed a marginally significant effect of the counselors' protocol adherence on *motivation*, a significant effect on *trust* and no effect on *passion*. Next, Fisher's r-to-z transformation displayed a significantly higher correlation coefficient between *passion* and a *happiness-oriented working style* than between *passion* and a *problem-oriented working style*. When comparing the two conditions, after correcting for the covariate *number of sessions*, the positive effect of the Happiness Route on *motivation* remained significant, whereas the effect on *trust* became non-significant, suggesting no difference between the Happiness Route and the active CAU condition for latter variable.

Discussion: The findings were partly in line with the established hypotheses. Possible sources of bias coming forth from measuring participant variables through counselor indications are a limitation of this study. Future research could apply a different sort of data collection, or assess the effects of specific counselor methods. In practice, the importance of protocol adherence should be emphasized, working *happiness-oriented* should be promoted, and a higher number of sessions should be made obligatory. In conclusion, promising effects of the Happiness Route could be demonstrated.

Keywords: positive psychology, happiness-based, loneliness, protocol adherence

Samenvatting (Dutch Abstract)

Introductie: Deze studie onderzoekt de ‘black box’ van de ‘Geluksroute’, een geluksgerichte interventie vanuit de positieve psychologie voor mensen die voornamelijk lijden aan eenzaamheid veroorzaakt door chronische ziekte. Het wordt verondersteld dat zowel een hogere mate van protocol adherentie als een geluksgerichte in tegenstelling tot probleemgerichte werkstijl van de consulenten voordelige effecten kunnen hebben op het welbevinden van mensen.

Methode: De onderzochte variabelen hadden betrekking op te deelnemers, maar werden beoordeeld door de consulenten: de *motivatie* van de deelnemers, hun *vertrouwensband* met een consulent en de mate waarin ze hun *passie* konden vinden door de interventie. N = 22 consulenten zorgden voor N = 34 deelnemers binnen de Geluksroute conditie en N = 11 consulenten zorgden voor N = 37 deelnemers in de controle conditie. Het effect van protocol adherentie en de werkstijlen op de drie variabelen werd binnen de Geluksroute interventie onderzocht. Uiteindelijk werden de twee condities met elkaar vergeleken ten opzichte van de *motivatie* van de deelnemers en hun *vertrouwensband* met de consulenten.

Resultaten: Uit univariate variantie analyses bleek een marginaal significant effect van protocol adherentie van de consulenten op *motivatie*, een significant effect op het *vertrouwensband* en geen significant effect op *passie*. Vervolgens toonde Fisher’s r-tot-z transformatie een significant hogere correlatie coëfficiënt tussen het vinden van *passie* en een geluksgerichte werkstijl dan tussen het vinden van *passie* en een probleemgerichte werkstijl van de consulenten. Nadat voor de covariaat *aantal sessies* werd gecorrigeerd, bleek het effect van de Geluksroute interventie op *motivatie* significant hoger te zijn dan in de controle conditie. Het effect van de Geluksroute interventie op de *vertrouwensband* werd echter na de correctie voor de covariaat niet significant. Dit suggereert, dat er geen verschil was tussen de Geluksroute conditie en de controle conditie met betrekking tot deze laatste variabele.

Discussie: De gevonden effecten kwamen gedeeltelijk met de hypotheses overeen. Een limitatie van deze studie zijn de door de consulenten beoordeelde variabelen, waardoor er mogelijk bias in zit. Toekomstig onderzoek zou alternatieve methoden van dataverzameling kunnen gebruiken, of naar de effecten van specifieke methoden kijken. In de praktijk moet het belang van protocol adherentie worden benadrukt. Verder wordt aanbevolen om een geluksgerichte werkstijl te bevorderen en om een bepaald aantal sessies verplicht te maken. Uiteindelijk laat deze studie veelbelovende effecten van de Geluksroute zien.

Sleutel woorden: positieve psychologie, geluksgericht, eenzaamheid, protocol adherentie

Contents

1. Introduction

A shift of focus is currently taking place in the Dutch health care system (Weiss, Kedzia, Francissen, & Westerhof, 2015). Traditionally, illness is handled by firstly diagnosing the illness and secondly aiming at reducing the symptoms. Even though this 'problem-based approach' is successful in many cases, it has proven to not always be the best practice in general (Weiss, Westerhof, & Bohlmeijer, 2013). For example, chronic disease is mostly treated permanently, leading to high care consumption without actual progress (Van der Plaats, 1994). Therefore, nowadays a more positive focus is being supported in the public health care system. It suggests stimulating 'behavior and health' instead of 'illness and care', encouraging transgression instead of maintenance of the status quo (RVZ, 2010). 'Happiness-based approaches' are evolving from the corresponding research area of positive psychology and focus on peoples' strengths, talents and virtues instead of their problems and weaknesses (Weiss et al., 2015). They can be considered as complimentary strategies for health promotion and treatment (Seligman & Czikszentmihaly, 2000; Bolier et al., 2013). For the health care system this implies that in addition to alleviating the negative impact of mental or physical illness by reducing the symptoms, the promotion of happiness, positive emotions and related aspects, that still are functional despite the presence of illness, are addressed and enhanced. It has been stated numerous times, that mental health, happiness and well-being are important determinants of a functioning and healthy population and therefore need to be promoted (World Health Organisation, 2005; Keyes, 2007; Westerhof & Bohlmeijer, 2010).

Mental health is defined as '[…] more than just the absence of mental disorders or disabilities. Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community' (WHO, 2016, para. 1-2). According to this definition, simply reducing problems or disorders does not necessarily lead to an increase of mental health. This is also described by the two-continua model, which states that mental illness and mental health are two related but distinct constructs (Keyes, 2007; Westerhof & Keyes, 2010). This means, they can clearly influence each other but the absence of mental illness does not imply mental health or optimal functioning. Moreover, the definition of mental health reflects the essence of well-being, which consists of three components: emotional, psychological and social well-being (Keyes, 2002). Emotional well-being refers to the degree of subjective appraisal of happiness, life satisfaction, and the presence of positive and absence of negative mood (Diener & Lucas, 1999). Psychological well-being is concerned with concepts such as personal growth, goal achievement, self-acceptance, positive

relations with others, autonomy, and the ability to manage complex environments according to own values (Ryff & Singer, 1996). Finally, social well-being refers to the degree of effectively functioning in society. The extent of social acceptance, belief in societal actualization, an understanding of social coherence and a feeling of contribution to and integration in society are incorporated in this third component (Keyes, 1998). In order to achieve optimal well-being, an individual must experience a high degree of compliance with all three components (Keyes, 2005).

Past research has shown that well-being can be increased, for example by positive psychology behavioral interventions, thus 'treatment methods or intentional activities aimed at cultivating positive feelings, positive behaviors, or positive cognitions' (Sin & Lyubomirsky, 2009, p. 267). A recent meta-analysis of 39 studies indicated a small but sustainable beneficial effect of positive psychology interventions on subjective and psychological well-being (Bolier et al., 2013). It also found a small reduction of depressive symptoms in the general public and in individuals with specific psychosocial problems through positive psychology. Likewise, Sin and Lyubomirsky (2009) conducted a meta-analysis of 51 studies and came to the conclusion that on the one hand well-being is significantly enhanced by positive psychology interventions and on the other hand depressive symptoms are decreased.

Shifting the focus towards the enhancement of well-being and hereby mental health entails various advantages. Personal functioning is enhanced and productivity aside of social participation are increased (Keyes, 2002; Keyes, 2005). Other advantages are reduced medication consumption, improved health conditions and a generally higher life expectancy (Diener & Ryan 2009; Keyes, Dhingra, & Simoes, 2010). Besides, benefits of well-being like enhanced physical functioning and decreased mortality are also found in unhealthy populations (Lamers, Bolier, Westerhof, Smit, & Bohlmeijer, 2012). Taken together, meta-analyses and reviews come to the conclusion that 'the promotion of well-being will lead to considerable health gains for the individual and society' (Howell, Kern, & Lyubomirsky, 2007; Chida & Steptoe, 2008; Lamers et al., 2012; Weiss et al., 2013, p. 2).

However, until now the promotion of well-being has mainly been applied in more privileged groups and not in populations exposed to the risk factors for low well-being (Bolier et al., 2013; Westerhof, 2013). Especially individuals subjected to an accumulation of the following risk factors are susceptible to a low level of well-being: individuals with a low socioeconomic status (SES), strong feelings of loneliness and isolation, and often chronic health problems (Diener, Suh, Lucas, & Smith, 1999; Walburg, 2008; Westerhof 2013). For

these individuals, traditional approaches are applied with the objective of reducing health problems or symptoms. On the one hand this does not allow promoting well-being and on the other hand this causes high costs for care consumption, since care has to be provided permanently on a regular basis (Valtorta & Hanratty, 2013). When examining the risk factors, it becomes apparent that neither SES nor chronic health problems are easily changeable factors. However, loneliness can be addressed indirectly by counteracting its components, such as a sense of worthlessness or lack of control (Cacioppo, Hawkley, & Thisted, 2010). Complementing the traditional approach for the reduction of health problems with a happiness-based positive psychology approach aims at tackling these negative states to ultimately promote individual well-being.

Loneliness may be seen as an important indicator especially for diminishing the social aspect of well-being (De Jong Gierveld & Van Tilburg, 2008). It is associated with many risks for the affected individuals, including morbidity, mortality, suicide, and depressive symptoms (Hawkley & Cacioppo, 2010). Loneliness is defined as a debilitating psychological condition characterized by a deep sense of emptiness, worthlessness, lack of control and personal threat (Cacioppo et al., 2010). A crucial characteristic of loneliness is its lack of feeling connected to others, which is a basic human need and essential for well-being (Ryan & Deci, 2000). In the Dutch population the prevalence of loneliness is as high as 40 % and feelings of severe loneliness are applicable to 8 % of the population (Savelkoul & Van Tilburg, 2010; Veenvliet, 2013). Low SES and health problems are related to loneliness, whereas a low SES in turn is connected to health problems. Finally, a poor health condition and a low SES both have a negative impact on an individual's well-being.

The relationships between loneliness, SES and health condition, and their influence on well-being can be explained by picturing a vicious circle (Van der Plaats, 1994): Physical and mental health problems can cause people to stop pursuing different daily activities, e.g. work, which can lead to inactivity and isolation. Not working can bring forth a feeling of not being competent. Feeling competent is a basic human need and if not fulfilled, it can have deteriorating effects on individual well-being (Ryan & Deci, 2000). Inactivity can give rise to an even greater stress reaction than high activity (Van der Plaats, 1994). This causes more stress symptoms and complaints and in turn results in people seeking more health care. Evidently, this process is seemingly deemed hopeless. The consumption of yet more traditional care may yield a reduction of illness related symptoms, but does not necessarily lead to lower inactivity or a reduced feeling of isolation. By complementing traditional care

with a happiness-based approach aimed at cultivating positive activity and well-being, it seems as if the vicious circle can be interrupted (Van der Plaats, 2002).

The ‘Happiness Route’ is a short positive psychology behavioral intervention, which incorporates a happiness-based approach within a population characterized by low SES, feelings of loneliness, and health problems (Weiss et al., 2013; Weiss et al., 2015). The foundation of this intervention is based on two different theories. First, the economic theory of ‘nudging’ most importantly provides individuals with a gentle push in the right direction, called a nudge (Thaler & Sunstein, 1976; Tiemeijer, Thomas, & Prast, 2009). Second, the self-determination theory provides three basic human needs for well-being: autonomy, competence and relatedness (Ryan & Deci, 2000). Autonomy refers to the extent to which an individual can make his or her own choices. Competence describes the feeling of being able to use one’s capacities and apply one’s talents. Finally, relatedness describes a feeling of connection to others and maintaining social relations. The self-determination theory corresponds to enhancing an individual’s intrinsic motivation for a self-chosen activity, which is a crucial element of this intervention. Intrinsic motivation is defined as ‘the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn’ (Ryan & Deci, 2000, p. 70). It refers to the degree to which an activity is rewarding in itself by providing inherent pleasure simply by doing it. Therefore, it is the most stable form of human motivation and strongly contributes to well-being.

While applying the Happiness Route intervention, risk factor subjected individuals are visited by trained counselors to discuss positive topics like values, interests, talents, wishes, and potentials (Weiss et al., 2015). Thus, the working style applied by the counselors is supposed to be mainly happiness-oriented as opposed to the more traditional problem-oriented working style. Other important factors that further promote well-being are social participation, goal-directedness and purpose in life (Diener et al., 1999; Ryan & Deci, 2000). They are also addressed in this intervention. The aim of the Happiness Route is the discovery of and engagement in an activity or *passion*, for which one possesses intrinsic motivation. This in turn can lead to the primary effect of enhancing well-being. As secondary effects, constructs often examined in positive psychology are anticipated: more resilience, a stronger perception of meaning in life, and the establishment of social connections.

Effects found in pilot studies of the Happiness Route show promising results. A case file analysis conducted by Kedzia (2009) revealed that the intervention resulted in new experiences and learning achievements, going out, establishing new contacts and engaging in intrinsically motivated activities. Furthermore, a qualitative pilot study by Francissen,

Wezenberg and Westerhof (2010) concluded that even two years after the intervention, well-being had increased by 40 % and the participants' use of health care had decreased by 23 %. Finally, the intervention both reaches the intended group and is well-received by counselors and participants (Van der Plaats, 2007; Kedzia, 2009; Francissen et al., 2010).

1.1 The current Research

Happiness-based positive psychology interventions are currently being developed and evaluated, but the so-called 'black box' of psychological interventions may be regarded as their crux: not only discovering whether an intervention works, but also why and under which circumstances often remains unanswered (Harachi, Abbott, Catalano, Haggerty, & Fleming, 1999). In order to gain insight into the black box of a positive psychology intervention, the goal of the current study is to investigate process data from the Happiness Route. Since first effects of this specific intervention seem promising and as aiming at the amelioration of well-being goes hand in hand with substantial health gains for individual and society, it is essential to explore underlying processes instead of only the outcome (Howell et al., 2007; Chida & Steptoe, 2008; Lamers et al., 2012). In this manner, a deeper understanding of functional aspects of the Happiness Route intervention can be achieved.

Instead of using post-intervention participant outcome data, this study examines counselor logbooks recorded during the implementation of the intervention. These online logbooks contain the counselors' ratings on various participant process variables and additionally a documentation of the steps taken during the intervention and the methods applied. The perceived participant process variables are *motivation*, *trust*, and finding one's *passion*. Being motivated during an intervention and trusting the counselor are both participant variables, which positively affect the outcome of behavioral interventions (Martin, Garske, & Davis, 2000; Deci & Ryan, 2008; McLeod, 2011). Furthermore, the discovery of and the engagement in an intrinsically motivated activity or passion can lead to enhanced well-being (Weiss et al., 2015).

1.1.1 Protocol adherence. To begin with, one crucial aspect is to investigate to what extent counselors have complied with the intervention protocol of the Happiness Route. Protocol adherence refers to the degree of fidelity to the treatment model, manual or protocol during the implementation of an intervention and is positively related to the effectiveness of behavioral interventions (Nezu & Nezu, 2008; Plumb & Vilardaga, 2010). Only a minority of behavioral studies have assessed protocol adherence, even though it is crucial to check whether an intervention has been implemented appropriately (Bhar & Beck, 2009; Perepletchikova, Hilt, Chereji, & Kazdin, 2009). Only then can treatment effects be linked to

the specific processes in the treatment model as presumably being related to change. Besides, examining the degree of protocol adherence allows for 'comparisons of treatments across settings, comparisons of therapists across settings and studies, and [a provision of] important information for training and supervision procedures' (Plumb & Vilardaga, 2010, p. 263). Moreover, implementation failure, thus not adhering to the protocol, is often regarded as a factor, which leads to reduced effectiveness of behavioral interventions (Harachi et al., 1999). On this basis, it may be assumed that the implementations of the Happiness Route, which were conducted in a more protocol adherent manner, would have a beneficial influence on participant process variables.

Hypothesis 1: Implementations of the Happiness Route displaying a higher degree of protocol adherence of the counselors lead to higher ratings of the participants' *motivation*, *trust* and finding of their *passion*.

1.1.2 Working styles. Secondly, a *happiness-oriented* as opposed to a *problem-oriented working style* of the Happiness Route counselors may be regarded as a central element, distinguishing this intervention from the more traditional approaches (Weiss et al., 2015). Hence, comparing the effects of the two *working styles* on the participants' *motivation*, *trust* and whether they find their *passion* can allow assessing whether the *happiness-oriented working style* does indeed contribute to more positive participants process variables, which in turn may be beneficial for the effectiveness of the intervention (Martin et al., 2000; Ryan & Deci, 2000; Deci & Ryan, 2008; McLeod, 2011; Weiss et al., 2015).

Hypothesis 2: Making use of the *happiness-oriented* as opposed to the *problem-oriented working style* has a beneficial influence on the ratings of the participants' *motivation*, *trust* and to which extent the participants find their *passion*.

1.1.3 Comparison of the Happiness Route and active care as usual. Finally, a comparison between the Happiness Route intervention and a more traditional but active care as usual (CAU) intervention serves to assess whether the different approaches lead to significantly different levels of *motivation* and *trust* of the participants, as rated by the counselors. According to the self-determination theory, in which the factors autonomy, relatedness and competence enhance intrinsic motivation, the Happiness Route may generate superior ratings on the participants' *motivation* and *trust*, since this intervention profoundly integrates and encourages these principles (Ryan & Deci, 2000; Ryan, Lynch, Vansteenkiste, & Deci, 2010; Weiss et al., 2015).

Hypothesis 3: The counselors' ratings of their participants' levels of *motivation* and *trust* are significantly higher on average in the Happiness Route condition than in the active CAU condition.

Taken together, assessing how counselors adhered to the established intervention protocol gives a new insight in what happens during the implementation of the positive psychology intervention the Happiness Route. Furthermore, examining the importance of the counselors adhering to the intervention protocol and their application of a happiness-oriented working style, delivers valuable information about which aspects to focus on for achieving beneficial participant process variables. Finally, unlike previous studies, the current study does not simply compare the outcome of the Happiness Route to the active CAU condition with regard to effectiveness. Instead it allows assessing whether the participant variables measured during the implementation of the intervention benefit from the happiness-based approach in general.

2. Method

2.1 Design

This study is part of a randomized controlled trial, which was conducted with two conditions in a real-life setting (Weiss et al., 2013; Weiss et al., 2015). Accordingly, there was an experimental condition as well as a control condition enabling a between-subjects design. As both the counselors and the participants were purposively aware of the goal of the respective intervention, no blinding was performed. However, the participants were not informed about the condition they had been assigned to. In order to fulfill ethical considerations, participants assigned to the active CAU condition have been granted the possibility of participating in the Happiness Route intervention after the study was completed.

2.2 Participants

The counselors of this research were adults, who were trained by researchers from the University of Twente in order to be able to either execute the Happiness Route intervention or the active CAU intervention. Exclusion criteria from participating as a counselor were: either no prior experience with therapeutic conversation or not having worked in the social care- or welfare sector. Additionally, this research only included counselors who filled in the online logbooks.

The total sample size of the Happiness Route counselors consisted of N = 22 counselors (two males, 19 females, one gender missing). Thirteen of them were professional counselors and seven of them were volunteers. However, both the professional counselors and

the volunteers had prior experience in the social care sector. The mean age of the Happiness Route counselors was 51.5 years (*SD* = 13.0). The active CAU counselor sample size consisted of *N* = 11 counselors (three males, eight females). Ten of them were professional counselors, whereas one was an experienced volunteer. The mean age of the active CAU counselors was 47 (*SD* = 14.0). Neither the performed Chi²-tests for the categorical variables (*sex, education level, nationality, and type of counselor*) nor the independent samples t-test for the two scale variables (*years of work experience* and *age*) indicated significant differences between the Happiness Route counselors and the active CAU counselors with regard to the demographic background variables. The demographic information as well as the significance values for the Chi²-tests respectively the t-tests are presented in Table 1.

The counselors of the Happiness Route condition attended to 34 participants in total, whereas the counselors in the active CAU condition attended to 37 participants. Thus, *N* = 71 participants took part in the study.

Table 1

Frequencies of Counselor Characteristics and Significance Values of Chi²-tests and T-tests

		Happiness Route	Active CAU	Total	Chi²/ T-test *(p)*
Sex *(n (%))*	male	2 (9.5)	3 (27.3)	5 (15.6)	.19
	female	19 (90.5)	8 (72.7)	27 (84.4)	
Education *(n (%))*	medium	1 (4.8)	2 (18.2)	3 (9.4)	.52
	high	20 (95.2)	9 (81.8)	29 (90.6)	
Nationality *(n (%))*	Dutch	20 (95.2)	11 (100)	31 (96.9)	.46
	Surinamese	1 (4.8)	0	1 (3.1)	
Type counselor *(n (%))*	professional	13 (61.9)	10 (90.9)	23 (71.9)	.12
	volunteer	7 (33.3)	1 (9.1)	8 (25.0)	
	missing	1 (4.8)	0	1 (3.1)	
Experience in years *(M (SD))*		20.2 (13.5)	14.6 (11.1)	17.4 (12.3)	.24
Age in years *(M (SD))*		51.5 (13.0)	48 (14.0)	49.8 (13.5)	.50
Total *N*		21*	11	32*	

Note. n = number of individuals; *p* = significance value; *M* = mean; *SD* = standard deviation; Medium and high education levels are equivalent to 'hoger algemeen onderwijs/middelbaar beroepsonderwijs' and 'hoger beroepsonderwijs/wetenschappelijk onderwijs' respectively; *one Happiness Route counselor did not fill in this questionnaire (*N* = 22 during the implementation of Happiness Route; *N* = 33 in total).

2.3 Procedure

The counselors, who signed up for this study, were purposively assigned to deliver either the Happiness Route intervention or the active CAU intervention. Prior to the execution of the interventions, all counselors received a research training. It informed about different aspects of the entire study and elaborated on the contents of the active CAU condition. Additionally, only the Happiness Route counselors received a basic training for being able to conduct the Happiness Route intervention. All counselors were guided by a local project leader, who also took care of the financial support. Furthermore, intermediaries were responsible for the recruitment and allocation of both, the counselors and socially isolated people as participants for the study.

The Happiness Route counselors were asked to pay up to six home visits to each of their participants, during which they worked through the five phases of the intervention: (1) *mutual definition of the situation*, (2) *goal orientation*, (3) *selection of an activity*, (4) *planning and implementation of the activity*, and (5) a *booster session*. The session number was independent from the phases, meaning that more than one phase could be completed within a single session. Evidence-based methods, like life-review techniques or behavioral activation, were applied in most phases (Weiss et al., 2015). In the first phase, the mutual definition of the situation and the problem of the individual were discussed shortly. After this exchange, a clear switch to a more *happiness-oriented working style* needed to be made by setting talks about problems aside. During the goal orientation phase – the second phase – the participants' dreams, passions and talents were thoroughly examined by making use of positive psychology methods, such as the examination of values. In the third phase, an activity was chosen, which was in line with the participants' *passion*. It was important to emphasize the autonomy and responsibility of the individual and not make the choice of activity for him or her, since this may have come at the expense of undermining the degree of intrinsic motivation. In the fourth phase, the activity was planned and performed, for which up to 500 € could be spent. Finally, the booster session was held in the last phase, which consisted of evaluating the participants' progress made during the intervention. It was important for the Happiness Route counselors to perform a happiness-oriented working style with the final aim of promoting the participants' intrinsic motivation to execute a self-chosen activity according to their own *passion*. However, counselors were free in choosing which methods to apply.

Counselors in the active CAU condition were asked to visit their participants at their homes twice. In these two sessions, care related topics and potential other problems, for

example financial or social problems, were discussed in order to look for a solution to optimize the care the participants were receiving at the time.

After each conversation with a participant, the counselors in both conditions were supposed to fill out online logbooks concerning topics referring to the methods applied, on how the relationship with a participant was developing or how motivated a participant seemed to be.

2.4 Material

During the trainings and prior to the start of the interventions, all counselors were given a questionnaire for background information like demographical data (Weiss et al., 2013). The whole questionnaire can be found in Appendix 1. To assess processes taking place during the interventions, such as protocol adherence, all counselors filled out online logbooks, which partly varied between the two conditions. In the following paragraphs, the measurements of the online logbooks are presented in more detail.

2.4.1 The online logbooks. The online logbooks of both the Happiness Route condition and the active CAU condition asked for indicating different measures after each session, amongst which the perceived *motivation* of the participant or the perceived *trust* bond between counselor and participant. *Motivation* was measured by the item: 'How high do you estimate the motivation of the participant?'. *Trust* was measured by the item: 'How good is the trust bond with the participant?'. The items were rated on a ten-point Likert scale ranging from 1 = *very low* to 10 = *very high*. In both online logbooks, all variables were measured by a single item for making the procedure user-friendly. When a construct is very specific, as it is the case in this research, a single-item measure is a reliable and valid method of measurement (Robins, Hendin, & Trezniewski, 2001; Van Hooff, Geurts, Kompier, & Taris, 2007). Besides, using single-item measures offers good face validity.

Only the Happiness Route counselors were asked to evaluate the participants' degree of having found their *passion*. *Passion* was measured by the item: 'To which degree do you have the feeling that the participant has found his or her passion?'. Furthermore, they were asked to indicate the *working style* during a session, which was measured by the item: 'To what extent have you worked [happiness-oriented] [problem-oriented] in this conversation?'. Again, the items could be rated on a ten-point Likert scale ranging from 1 = *very little* to 10 = *a lot*. The complete Happiness Route condition online logbooks can be found in Appendix 2. The complete active CAU condition online logbooks can be found in Appendix 3.

2.5 Intervention Protocol

In order to assess the extent of protocol adherence of the counselors in the Happiness Route condition, an intervention protocol has been developed. It consists of four core elements: (I) *sessions*, (II) *phases*, (III) *methods* and (IV) *working styles*. These four determined core criteria are described in detail in the following.

(I) *Sessions*: To achieve this criterion, at least two sessions per participant must have taken place. Interventions consisting of less than two sessions have been directly labeled as *non-adherent*.

(II) *Phases:* Originally the intervention consists of the five phases (1) *mutual definition the situation*, (2) *goal orientation*, (3) *selection of an activity*, (4) *planning and implementation of the activity*, and (5) a *booster session*. In order to fulfill this criterion, the implementation of the phases (2) *goal orientation*, (3) *selection of an activity*, and (4) *planning and implementation of the activity*, was obligatory. Phase (1), the *mutual definition of the situation*, was not obligatory, because the Happiness Route intervention does not focus on discussing the problems of the participants, as required by this phase. Furthermore, the last phase, (5) the *booster session*, is not critical for this protocol criterion, since this phase consists of evaluating the progress made during the intervention. This is not crucial for beneficial effects on the participants' well-being or other outcomes of the intervention.

(III) *Methods:* The Happiness Route makes use of various methods and evidence-based techniques, which may be applied during different times of the intervention and also may be used multiple times. The 13 methods and techniques are: *discussing the problem*, *putting the problem aside*, *asking the happiness-question*, *motivating the participant to get started*, *establishing an activity list*, *asking the life-review question*, *using the anticipated regret method*, *choosing an activity together*, *discussing use of budget*, *behavioral activation*, *evaluation*, *positive outcomes* and *pitfalls*. To satisfy this criterion, the two most crucial methods *asking the happiness-question* and *choosing an activity together*, which are characteristic for this intervention, were obligatory and each had to be applied at least once during the time of a complete implementation of the intervention.

(IV) *Working styles:* This last criterion refers to the *happiness- and the problem-oriented working styles*. The *working styles* were rated on a scale from one to ten by the counselors and this criterion is regarded as fulfilled when the mean over all sessions of the *happiness-oriented working style* per participant is five and higher. This classification has been used since the common understanding in the Netherlands is that a rating under five is viewed as insufficient. Furthermore, the mean over all sessions except the first session of the

problem-oriented working style per participant needed to be below five in order to fulfill this criterion. In the first session a *problem-oriented* approach is allowed, but is supposed to decline in subsequent sessions. Working in a *happiness-oriented* manner may be seen as one of the core points, which distinguishes the Happiness Route intervention from other CAU interventions.

To estimate the extent of adherence to the intervention protocol, these four core criteria were examined separately for each participant, who received the intervention. This allowed assessing how many of the 34 implementations of the Happiness Route had been performed by the counselors in a protocol adherent manner, partly protocol adherent manner or non-adherently. To be announced as *fully protocol adherent*, an individual implementation of the intervention needed to fulfill at least three of the four criteria, one of them being criterion (I). To be called *partly protocol adherent*, two of the four criteria had to be achieved. However, criterion (I) was obligatory again and therefore needed to be amongst the two fulfilled criteria. *Non-adherent* were those implementations of the intervention, which either satisfied only one criterion or none, or which did not fulfill criterion (I).

2.6 Preliminary Statistics

Both types of online logbooks were fully entered into a data file of the data analysis program SPSS from IBM. The mean scores for all investigated constructs (*motivation*, *trust*, *passion*, *happiness-oriented working style*, and *problem-oriented working style*) were computed per participant over the according number of sessions.

2.6.1 Intervention protocol. For assessing the degree of protocol adherence per implementation of the intervention, the four core criteria were examined using descriptive statistics, which showed the number of *sessions*, the number of *phases*, the number of *methods* used in total, and finally the means of the *working styles* over the sessions. Each implementation of the intervention was labeled on the basis of the three levels of protocol adherence: fully adherent, partly adherent and non-adherent.

2.7 Hypotheses Testing

2.7.1 Protocol adherence. Corresponding to the first hypothesis, it was examined whether there was a significant difference between the three categories of protocol adherence with regard to the participants' *motivation*, *trust* bond between counselor and participant, and whether someone found his or her *passion*. Three separate univariate analyses of variance (ANOVA) were performed. *Motivation*, *trust* and *passion* thus were used as the dependent variables per analysis respectively, whereas the independent variable was the categorization of the adherence levels. Since the hypothesis points towards a clear tendency for the expected

findings, a one-sided significance level was used. An α-value of .05 was defined to examine whether there was a significant difference between the conditions with regard to the three dependent variables. Furthermore, the estimates of effect size (partial eta²) were calculated.

2.7.2 Working styles. For the second hypothesis, the link between *happiness-oriented* and *problem-oriented working style* with regard to the ratings of *trust* in the counselor, the participants' *motivation* and to which extent the participants found their *passion* was examined using bivariate correlation analyses. The calculated correlation coefficients of *trust*, *motivation* and *passion* were compared between the *happiness-oriented* and the *problem-oriented working style*, respectively. For this purpose, Fisher's r-to-z-transformation formula was applied to make a statement about the strength of the significant difference between the correlation coefficients. The significance levels were derived from a standard distribution table for z-values.

2.7.3 Comparison of the Happiness Route and active CAU. In order to assess the relational and motivational difference between the conditions for approaching the third hypothesis, two independent samples t-tests were performed, using the condition as the grouping variable and the ratings of *trust* and *motivation* as the dependent variables. Levene's test was used to test for variance homogeneity. Furthermore, the effect sizes were calculated manually using the common formula for Cohen's *d* (Cohen, 1988). Again, one-sided significance levels were used due to the clearly directional hypotheses. Finally, univariate analyses of covariance (ANCOVA) were performed. It was controlled for unequal *session numbers* of the Happiness Route condition and the active CAU condition, in order to reduce within-group error variance and to eliminate confounds.

3. Results

3.1 Intervention Protocol

Of the 34 Happiness Route implementations, seven were conducted in a *fully protocol adherent* manner, 13 were *partly adherent* and 14 were *non-adherent*. The number and percentages of fully, partly and non-adherently conducted implementations within the Happiness Route condition can be seen in Table 2. The table also displays the number and according percentages of Happiness Route implementations that fulfilled the four criteria of the intervention protocol. A complete overview of the criteria and levels of adherence per implementation can be found in Appendix 4.

Table 2

Frequencies of fulfilled Criteria and the Levels of Adherence (N of Implementations = 34)

	Fulfilled	Not fulfilled
	n (%)	*n (%)*
Fully adherent	7 (20.6)	27 (79.4)
Partly adherent	13 (38.2)	21 (61.8)
Non-adherent	14 (41.2)	20 (58.8)
Criterion 1: Sessions	24 (70.6)	10 (29.4)
Criterion 2: Phases	5 (14.7)	29 (85.3)
Criterion 3: Methods	15 (44.1)	19 (55.9)
Criterion 4: Working styles	16 (47.1)	18 (52.9)

Note. *n* = number of implementations of the intervention per adherence level and protocol criterion.

3.2 Protocol Adherence

The mean scores on *motivation* were higher in the group of fully adherent implementations than in the partly or non-adherent implementations. The found effect of the adherence levels with regard to the ratings of *motivation* was marginally significant, F (2, 31) = 2.46, p = .05, partial η^2 = .14. The effect size was large (Field, 2013). Furthermore, the mean scores of the variable *trust* were highest in the fully adherent group, second highest in the partly adherent group and lowest in the non-adherent group. The effect of adherence levels on *trust* was significant and the effect size was large, F (2, 31) = 3.71, p = .02, partial η^2 = .19 (Field, 2013). Finally, the effect of adherence levels was non-significant for finding one's *passion* and the effect size was small, F (2, 31) = 0.44, p = .33, partial η^2 = .03 (Field, 2013). Although not significant, the mean scores on *passion* were higher in the group of fully adherent implementations than in the partly or non-adherent implementations. Table 3 presents the means and the standard deviations of *motivation*, *trust* and *passion* per adherence level and Figure 1 visualizes them.

Table 3

Means and Standard Deviations of the dependent Variables per Adherence Level (N of Implementations = 34)

	Fully adherent	Partly adherent	Non-adherent
	M (SD)	*M (SD)*	*M (SD)*
Motivation	8.40 (1.22)	7.25 (1.18)	7.33 (1.16)
Trust	7.86 (0.51)	7.49 (0.57)	7.38 (0.82)
Passion	7.33 (1.26)	6.73 (1.94)	6.69 (1.32)
n	7	13	14

Note. *M* = mean; *SD* = standard deviation; *n* = number of implementations per adherence level.

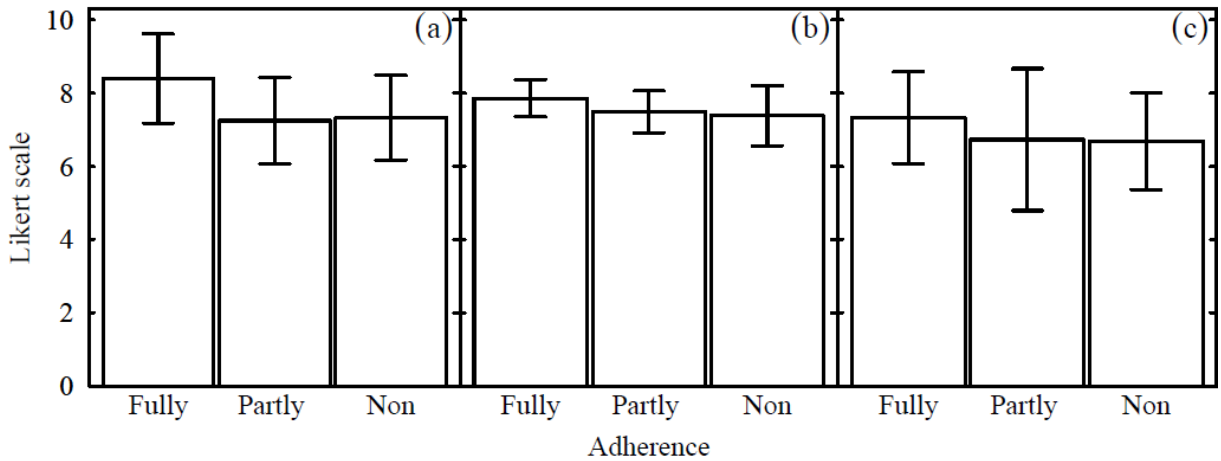

Figure 1. Mean values and standard deviations of motivation (a), trust (b) and passion (c) per adherence level, based on the values presented in Table 3

3.3 Working Styles

With regard to the second hypothesis, a significantly positive correlation of r = .57 was found between the variables *motivation* and *trust* and a significantly positive correlation of r = .45 was found between the variables *happiness-oriented working style* and *passion*. Fisher's r-to-z-transformations as follow-up calculations revealed that of the investigated correlation coefficients only one pair significantly differed from the others. The correlation coefficient of *happiness-oriented working style* and *passion* was significantly higher than the correlation coefficient of *problem-oriented working style* and *passion* (z = -1.87, p = .03). Neither did the correlation coefficient of *happiness-oriented working style* and *motivation* differ significantly from the correlation coefficient of *problem-oriented working style* and *motivation* (z = -.04, p = .48), nor did the correlation coefficient of *happiness-oriented*

working style and *trust* differ significantly from the correlation coefficient of *problem-oriented working style* and *trust* (z = -.71, p = .24). The correlations between the variables *motivation*, *trust*, *passion*, *happiness-oriented working style* and *problem-oriented working style* within the Happiness Route condition are presented in Table 4. The means and standard deviations of these variables within the Happiness Route condition can be seen in Table 5.

Table 4

Correlations between the dependent and independent Variables (N of Implementations =34)

	Motivation	Trust	Passion	Happiness-oriented	Problem-oriented
	r	*r*	*r*	*r*	*r*
Motivation	1	-	-	-	-
Trust	.57*	1	-	-	-
Passion	.32	.19	1	-	-
Happiness-oriented	.28	.12	.45*	1	-
Problem-oriented	.27	-.06	.01	-.13	1

Note. r = Pearson correlation coefficient; *p < .01.

Table 5

Means and Standard Deviations of the dependent Variables and the Covariate per Condition and in total

	Happiness Route	Active CAU	Total
	M (SD)	*M (SD)*	*M (SD)*
Motivation	7.52 (1.24)	6.68 (1.46)	7.08 (1.42)
Trust	7.38 (.73)	7.03 (.90)	7.19 (.83)
Passion	6.84 (1.55)	-	-
Happiness-oriented	7.22 (1.00)	-	-
Problem-oriented	5.30 (2.23)	-	-
Number of Sessions	2.41 (1.40)	1.57 (.50)	1.97 (1.12)
N	34	37	71

Note. *M* = mean; *SD* = standard deviation; *N* = number of participants per condition and in total.

3.4 Comparison of the Happiness Route and active CAU

On average, participants in the Happiness Route condition scored higher on *motivation* than participants in the active CAU condition. This difference was significant, t (69) = 2.62, p = .006. The effect size was approximating large, d = .77 (Cohen, 1988). Also for *trust*,

participants in the Happiness Route condition scored higher on average than participants in the active CAU condition. This difference was also significant, t (69) = 1.80, p = .04. The effect size was small to medium, d = .39 (Cohen, 1988).

The *number of sessions* that took place differed significantly between the Happiness Route condition and the active CAU condition, p = .001. The covariate *number of sessions* was not significantly related to the process variable *motivation*, F (1,68) = .06, p = .40. But even after controlling for the covariate, the difference between the conditions with regard to *motivation* remained significant, F (1,68) = 5.33, p = .01, partial η^2 = .07. The effect size was medium (Field, 2013). Likewise, the covariate *number of sessions* was not significantly related to the process variable *trust*, F (1,68) = 2.41, p = .06. Controlling for it made the effect of the condition on *trust* non-significant, F (1,68) = 1.17, p = .14, partial η^2 = .02. The effect size was small (Field, 2013). The means and standard deviations of the dependent variables and the covariate per condition and in total can be seen in Table 5.

4. Discussion

The aim of this study was to examine the black box of the Happiness Route and to compare this positive psychology intervention for people predominantly suffering from loneliness to an active CAU condition. Therefore, counselor online logbooks, in which records were kept during the implementation of the intervention, were explored. A higher degree of the counselors' adherence to the intervention protocol as well as a *happiness-oriented working style* were thought to have beneficial effects on the participants' *motivation*, their *trust* bond with the counselor and the extent to which the participants found their *passion* (Harachi et al., 1999; Nezu & Nezu, 2008; Plumb & Vilardaga, 2010; Weiss et al., 2015). Moreover, it was attempted to discover whether the ratings of the participants' *motivation* and *trust* were significantly higher in the Happiness Route condition compared to the active CAU condition (Ryan & Deci, 2000; Weiss et al., 2015).

4.1 Outcomes of the Study

4.1.1 Protocol adherence. The first hypothesis, that a higher degree of counselors' protocol adherence has a positive influence on the participants' *motivation*, their *trust* bond with a counselor and the extent to which they find their *passion* during the intervention, could only partly be confirmed. Protocol adherence had a significantly positive effect on the *trust* bond, whereas the effect on *motivation* was only marginally significant and the effect on finding one's *passion* was non-significant.

To begin with, also meta-analyses have demonstrated mixed effects of counselors' protocol adherence on the effectiveness of behavioral interventions (Bhar & Beck, 2009; Perepletchikova et al., 2009; Webb et al., 2010). Even though not many behavioral studies have assessed protocol adherence in the first place, those that have show significant effects of protocol adherence on outcomes in some cases, and null findings in others. This could be attributed to the fact that the positive effect of adhering to beneficial components of an intervention protocol may be masked by the negative effect of also complying with less helpful components (Webb et al., 2010). Besides, some effective components of interventions may be overlooked and consequently not be included in an intervention protocol. These statements bring awareness to the fact that intervention protocols are not all-encompassing. For the Happiness Route this means that implementations categorized as fully-adherent may be in compliance with the established intervention protocol (see Appendix 4), but additionally they may feature rather dysfunctional components. This in turn may have reduced or even disguised a part of the effect of protocol adherence on the participant process measures. Moreover, including additional beneficial components in the Happiness Route protocol, would lead to a more precise categorization of adherence levels and estimation of the subsequent effects. However, which components or methods relate better to more positive participant process variables and outcomes of the intervention is yet to be examined in a future study. By linking the application of specific methods to participant process variables or outcomes, their effectiveness could be assessed. Subsequently, the intervention protocol could be adapted according to the findings.

It should be emphasized that the intervention protocol was set up after the implementation of the intervention. Of course, the Happiness Route counselors knew what was expected from them due to the specific basic training they received prior to the intervention. However, they were not aware of certain points being obligatory for a higher degree of protocol adherence whereas others were not. Highlighting these aspects beforehand could have made adherence to the protocol more prominent in general. This is also implied by Perepletchikova and Kazdin (2005), who acknowledge that mixed or null findings of the effect of protocol adherence are often due to unclear delineations. Then again, not emphasizing certain methods during the training and then studying to which actions this led may be regarded as a more uninfluenced way of measurement. This seems preferable for a very first assessment of protocol adherence. In this respect thus, the counselors were blinded, not knowing that protocol adherence would be investigated. After having assessed the effectiveness of specific components of the intervention, future studies could examine the

consequences of emphasizing especially useful ones during the counselor trainings. Subsequently, the impact on adherence levels, participant process measures and on outcomes could be assessed.

Finally, low statistical power due to small sample sizes may be a possible explanation for the only marginally significant effect of protocol adherence on the participants' *motivation*. Nonetheless, large effect sizes were found for *motivation* and *trust* bond. Hence, one may expect to refine these results significantly in a study with a larger sample population. Additionally, a larger sample size would make the possibility of systematic confounding impacts smaller. However, the effect size for the case of finding one's *passion* was small, suggesting a lower influence of adherence to this intervention protocol. One can consider the possibility that *passion* may have been less apt as a process measure, since the Happiness Route works towards the discovery of and engagement in an intrinsically motivated activity at the end of the intervention. Therefore, one may expect that other variables, like progress over time or certain methods applied by the counselors, may have had a higher impact on *passion* than protocol adherence. Nevertheless, ratings of *passion* were high on average, indicating a generally positive tendency of this measurement throughout the intervention.

4.1.2 Working styles. After examining whether a *happiness-oriented working style* of the counselors had a positive impact on the participants' *motivation*, their *trust* bond with the counselor and the extent to which they found their *passion*, this second hypothesis was partly confirmed. A significantly higher correlation between a *happiness-oriented working style* and *passion* than between a *problem-oriented working style* and *passion* was discovered. This significantly higher correlation coefficient proposes that actively exploring the participants' values, interests or dreams within the scope of the Happiness Route promotes the discovery of and engagement in an intrinsically motivated activity. This in turn is expected to enhance well-being (Weiss et al., 2015). By further promoting the *happiness-oriented working style*, the positive effect of the Happiness Route can be maximized.

No effect of the *working styles* was found for the participants' *motivation* or for their *trust*. Therefore, it should be deliberated whether other factors are more important than a *happiness-oriented working style* in contributing to *motivation* and *trust* during this intervention. As proposed by the self-determination theory, for example relatedness is said to play a role in enhancing *motivation* (Ryan & Deci, 2000; Ryan et al., 2010). This is also reflected by the highly significant correlation found between *trust* and *motivation* in the current study. The finding suggests that a good *trust* bond between counselor and participant may play a greater role in enhancing *motivation* than the *working style*. On the other hand, it

comes to mind that counselors, who experienced a better *trust* bond, may have been biased in the way that they may have given higher ratings on participant *motivation*. For gaining more insight in the nature of this relationship, ratings of these variables could be collected directly from the participants during the implementation, and subsequently be examined.

Next, specific factors promoting the *trust* bond or a positive working alliance are listed in a review by Ackerman and Hilsenroth (2003). They claim that techniques such as accurate interpretation, exploration, and reflection contribute a positive bond. Furthermore, counselors' personal attributes play a role in enhancing a positive alliance. According to the review, being respectful, trustworthy, confident, warm, flexible and interested are among these attributes. By including these measures and having them rated by the participants during the intervention, a future study could examine the relevance of these factors for the participants' *trust*. Besides, a qualitative study could ask open questions for determining what participants see as important aspects for *trust* and *motivation* in this context.

4.1.3 Comparison of the Happiness Route and active CAU. By assessing whether the ratings of the participants' perceived *motivation* and *trust* bond in the Happiness Route condition were significantly higher than in the active CAU condition, the third hypothesis could partly be confirmed. After controlling for the covariate *number of sessions*, significantly higher ratings of the participants' *motivation* were found in the Happiness Route condition. This finding is in line with the self-determination theory, on which the Happiness Route is based (Ryan & Deci, 2000; Ryan et al., 2010; Weiss et al., 2015). Through encouraging aspects such as autonomy, relatedness and competence, intrinsic motivation is said to be enhanced. However, the *trust* bond between counselor and participant was only significantly higher in the Happiness Route condition without correcting for the covariate. This finding suggests that *trust* may be more dependent on an increasing amount of contact between a counselor and a participant than on specific methods applied only in the Happiness Route. Applying specific guidelines for an obligatory equal number of sessions in the Happiness Route condition and a CAU condition in a future study would allow a clearer comparison of the two conditions.

It should be kept in mind that these results do not reveal whether the Happiness Route was more effective than the active CAU condition. Instead, the participants' *motivation* was perceived higher by the counselors in the Happiness Route condition, whereas the *trust* bond was perceived as equally strong in both conditions. Nevertheless, this is an intriguing result, if one concludes that factors specific to the Happiness Route led to a higher level of participant *motivation*. Participant *motivation* has often been claimed to be the key for treatment

effectiveness in behavioral psychological interventions and therefore it should be enhanced (Ryan et al., 2010). Which factors increase participant *motivation* within the Happiness Route could be examined in a future study, for example by assessing the effect of the specific methods applied. Furthermore, it is important to examine whether participant *motivation* mediates the effect on well-being within the Happiness Route.

4.2 Limitations of the Study

4.2.1 Data collection. To begin with, the main measures of this study were process variables relating to the participants, but were not collected directly from them. Instead the counselors estimated the degree of their participants' *trust*, *motivation* and finding of *passion* after each session. Unlike the participants of this study, the counselors were not blinded regarding the condition they had been assigned to. Hence, one may assume that their ratings could have been biased, with generally more positive ratings in the Happiness Route condition. Moreover, estimating another persons' current state may be influenced by the own mood. Thus, this study may have come to different results, if the data had been collected directly from the participants. However, all counselors were well trained prior to the intervention, skilled in contact and conversational exchange with clients, and familiar with filling in questionnaires. In contrast, the participants of this intervention were distinguished by a low SES, inexperienced and possibly less reliable in conscientiously filling out questionnaires. Hence, the advantages of the intervention trainings, the counselors' prior experience with conversation and questionnaires, and their conscientiousness may be assumed to countervail the disadvantage of the possible biases. For overcoming these possible sources of bias, a future study could include short and simple participant questionnaires for filling out after each session. When measuring the same variables, the participant questionnaires could be compared to the counselor logbooks. This would shed light on the preciseness of the counselors' estimations, as well as on personal appraisals of the participants' current states.

4.2.2 Participant per counselor ratio. Another possible source of bias may have impacted the results of the comparison between the two conditions. In the active CAU group, a higher participant per counselor ratio was quite pronounced: 22 counselors and 34 participants in the Happiness Route condition versus 11 counselors and 37 participants in the active CAU condition. This means that in the Happiness Route condition one counselor on average attended to one or two participants, but in the active CAU condition each counselor attended to three or four participants on average. Counselor background variables did not differ significantly between the conditions. However, neither were personality traits examined nor were the counselors randomly assigned to the conditions. Even if only a few counselors in

both conditions consistently had given more extreme ratings for all of their implementations, the strong difference in ratio would have led to a greater impact on the active CAU data than on the Happiness Route data. For future studies it is recommended to utilize the same counselor to participant ratio in both conditions when examining counselor ratings on participant variables.

4.2.3 Incomplete logbooks. It is important to note that the counselor logbooks in the Happiness Route condition contained many missing values. This incompleteness of the dataset has different possible implications. To begin with, evidently the results and conclusion of this study would be more reliable, if based on a complete dataset. Furthermore, the fact that especially later sessions were not recorded leaves the question open, whether these sessions did not take place or whether the counselors simply stopped filling out the questionnaires after a few sessions. If one assumed that the sessions did not take place, it would be interesting to examine the underlying reasons. However, if many counselors simply did not fill out the logbooks after every session, this could be an explanation for the generally low adherence levels found in the current study. With a complete dataset, criterion (I) – number of sessions – would be fulfilled in more cases. Criterion (II), (III) and (IV) – phases, methods and working styles – would be fulfilled in more cases or stay the same. This is true even for less committed counselors, whereas one may suppose that additional data from more committed counselors could have improved the adherence levels anyway. Implementations of the Happiness Route that were not documented in the online logbooks at all were excluded from the current study. One could only speculate about the possible influence they could have exerted. For avoiding deliberations about missing data in future studies, one could consider adding a question to the logbooks about whether an implementation has been concluded or is to be continued. In case of early termination, possible reasons could be assessed. Questions like this would clarify the opaqueness caused by the missing data in the current study.

4.3 Conclusion and practical Implications

The current study revealed a positive effect of the counselors adhering to the intervention protocol especially on the *trust* bond, but also on the participants' *motivation*. Furthermore, a positive impact of a *happiness-oriented working style* on participants finding their *passion* was demonstrated. The comparison between the Happiness Route and the active CAU condition led to favorable results with reference to participant *motivation* found in the Happiness Route. Concerning practical implications, the current findings suggest emphasizing the importance of protocol adherence during counselor trainings for promoting the *trust* bond as well as participant *motivation*. Next, the relevance of applying a *happiness-oriented*

working style should be stressed for facilitating the search for the participants' *passion*. Furthermore, it is recommended to determine an increased obligatory number of sessions for enhancing the *trust* bond, which in turn promotes participant *motivation*. The scientific implications of the current study propose further research in the area of happiness-based interventions with larger sample populations, additional measures, alternative data collection methods and an assessment of the effects of specific methods used by the counselors.

In conclusion, the current study has examined often neglected counselor logbook data to discover what actually happened during the implementation of a positive psychology behavioral intervention. This allowed pointing at promising effects of the Happiness Route from a different perspective. Finally, as this research field is growing and along with it the knowledge gain, evidence-based positive psychology behavioral interventions can be designed to bring benefits to a vulnerable group, counselors and the healthcare system.

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Appendix 1: Counselor Background Questionnaire

1. Onderzoeksnummer
2. Leeftijd
3. Datum waarop u de lijst invult:
4. Bij welke organisatie werkt u?
5. In welke gemeente werkt u voor het onderzoek?
6. Aan wat voor soort training heeft u deelgenomen?
7. Wat voor consulent bent u tijdens het onderzoek?
8. Bent u een man of een vrouw?
9. Wat is uw geboortedatum?
10. Wat is uw culturele achtergrond?
11. Wat is de hoogste opleiding die u hebt afgerond? namelijk
12. Hoeveel jaren werkervaring heeft u in de zorg- of welzijnssector?
13. Hoeveel jaren werkt u al bij uw huidige werkgever?
14. Hoeveel uren werkt u per week?
15. Hoeveel autonomie ervaart u op uw werk op een schaal van 1 ("Ik ervaar helemaal geen autonomie.") tot 10 ("Ik ervaar heel veel autonomie.")?
16. Hoe goed kunt u zich met de (geluksgerichte) werkwijze van de geluksroute identificeren op een schaal van 1 (helemaal niet) tot 10 (helemaal)?
17. In hoeverre is uw werkwijze tijdens uw dagelijkse werk geluksgericht op een schaal van 1 (helemaal niet) tot 10 (helemaal)?
18. De volgende uitspraken hebben betrekking op hoe u uw werk beleeft en hoe u zich daarbij voelt. Op mijn werk bruis ik van energie.
19. Ik vind het werk dat ik doe nuttig en zinvol.
20. Als ik aan het werk ben, dan vliegt de tijd voorbij.
21. Als ik werk voel ik me fit en sterk.
22. Ik ben enthousiast over mijn baan.
23. Als ik werk vergeet ik alle andere dingen om me heen.
24. Mijn werk inspireert mij.
25. Als ik 's morgens opsta heb ik zin om aan het werk te gaan.
26. Wanneer ik heel intensief aan het werk ben, voel ik mij gelukkig.
27. Ik ben trots op het werk dat ik doe.
28. Ik ga helemaal op in mijn werk.
29. Als ik aan het werk ben, dan kan ik heel lang doorgaan.

30. Mijn werk is voor mij een uitdaging.
31. Mijn werk brengt mij in vervoering.
32. Op mijn werk beschik ik over een grote mentale (geestelijke) veerkracht.
33. Ik kan me moeilijk van mijn werk losmaken.
34. Op mijn werk zet ik altijd door, ook als het tegenzit.
35. Hoe voelde u zich in de afgelopen week in uw werk? Nerveus
36. Optimistisch
37. Somber
38. Op mijn gemak
39. Neerslachtig
40. Rustig
41. Gejaagd
42. Triest
43. Ontspannen
44. Ongemakkelijk
45. Opgewekt
46. Opgetogen
47. Ik ben tevreden met mijn baan.
48. Ik zou dezelfde baan opnieuw aannemen.
49. Ik zou mijn baan een vriend aanraden.
50. Zorg geven aan clienten. Deze baan voldoet aan mijn verwachtingen.
51. Vindt u het belangrijk om cliënten zelf keuzes te laten?
52. Vindt u het belangrijk om cliënten het gevoel te geven dat ze dingen zelf kunnen?
53. Vindt u het belangrijk om zelfzorg te stimuleren?
54. Vindt u het belangrijk om de beslissing over de activiteit over te laten aan de deelnemer?
55. Vindt u het belangrijk om naar de wensen en mening van de cliënten te vragen tijdens de gesprekken?
56. Als proffessional of vrijwilliger consulent?
57. Bent u naast uw rol als consulent ook projectleider?
58. vrije opmerkingen, geen vraag in vragenlijst

Appendix 2: Happiness Route Counselor Online Logbooks

1. Datum van invullen logboek
2. Onderzoeksnummer consulent
3. Onderzoeksnummer deelnemer
4. Datum van het gesprek
5. De hoeveelste sessie was dit?
6. Hoe lang duurde de sessie? Tijd in minuten
7. Beschrijf kort wat er in deze sessie is besproken.
8. Hoe verliep het gesprek en hoe was de sfeer tijdens het gesprek?
9. Geef kort uw indruk en de houding van de deelnemer tijdens deze sessie weer.
10. Welke afspraken zijn er met de deelnemer gemaakt?
11. Hoe goed is de vertrouwensband met de deelnemer?
12. Hoe prettig was het contact met de deelnemer voor u?
13. Hoe beoordeelt u de samenwerking met de deelnemer?
14. In hoeverre is het u gelukt om de autonomie van de deelnemer te ondersteunen?
15. In hoeverre heeft u op eigen kracht van de deelnemer kunnen inzetten?
16. In welke mate heeft u geluksgericht werken in dit gesprek toegepast?
17. In welke mate heeft u klachtgericht werken in dit gesprek toegepast?
18. Hoe beoordeelt u de motivatie van de deelnemer?
19. In hoeverre heeft u het gevoel dat de deelnemer zijn passie heeft gevonden?
20. In welke fase(s) was u tijdens deze sessie?
21. Probleem besproken
22. Probleem ‘weg gelegd’
23. Geluksvragen gesteld
24. Deelnemer gemotiveerd zelf aan de slag te gaan
25. Acitviteitenlijst gemaakt / aangevuld
26. Life-review vraag
27. Anticipated regret methode gebruikt
28. Samen activiteit gekozen
29. Over inzet budget gesproken
30. Gedragsactivatie
31. Evaluatie
32. (Mogelijke) positieve uitkomsten besproken
33. (Mogelijke) valkuilen besproken

34. Andere zelfingevulde methode
35. Is er nog iets opmerkelijks gebeurd tijdens deze sessie of heeft u nog opmerkingen?

Appendix 3: Control Counselor Online Logbooks

1. Datum van invullen logboek
2. Onderzoeksnummer consulent
3. Onderzoeksnummer deelnemer
4. Datum van het gesprek
5. Hoe lang duurde de sessie? Tijd in minuten
6. Beschrijf kort wat er in deze sessie is besproken.
7. Hoe verliep het gesprek en hoe was de sfeer tijdens het gesprek?
8. Geef kort uw indruk en de houding van de deelnemer tijdens deze sessie weer.
9. Welke afspraken zijn er met de deelnemer gemaakt?
10. Hoe goed is de vertrouwensband met de deelnemer?
11. Hoe prettig was het contact met de deelnemer voor u?
12. Hoe beoordeelt u de samenwerking met de deelnemer?
13. Hoe beoordeelt u de motivatie van de deelnemer?
14. Is er nog iets opmerkelijks gebeurd tijdens deze sessie of heeft u nog opmerkingen?
15. Datum van het gesprek
16. Hoe lang duurde de sessie? Tijd in minuten
17. Beschrijf kort wat er in deze sessie is besproken.
18. Hoe verliep het gesprek en hoe was de sfeer tijdens het gesprek?
19. Geef kort uw indruk en de houding van de deelnemer tijdens deze sessie weer.
20. Welke afspraken zijn er met de deelnemer gemaakt?
21. Hoe goed is de vertrouwensband met de deelnemer?
22. Hoe prettig was het contact met de deelnemer voor u?
23. Hoe beoordeelt u de samenwerking met de deelnemer?
24. Hoe beoordeelt u de motivatie van de deelnemer?
25. Is er nog iets opmerkelijks gebeurd tijdens deze sessie of heeft u nog opmerkingen?
26. Is er zorg bijgekomen? Zo ja, welke zorg en hoeveel zorg is er bijgekomen?
27. Is er zorg weggehaald of verminderd? Zo ja, welke zorg is weggehaald of verminderd. Als er zorg is verminderd, in welke mate is dit gebeurd?
28. Is er zorg die veranderd werd? Zo ja, welke zorg is veranderd en hoe is dit gedaan?

Appendix 4: Adherence Levels and Criteria per Implementation of the Happiness Route

Treat-ment	Partici-pant No	Crite-rion 1	Crite-rion 2	Crite-rion 3	Crite-rion 4	Fully adherent	Partly adherent	Non-adherent
1	3	6, Y	Y	Y, Y	Y, N	Y		
2	6	1, N	N	Y, N	Y, N			Y
3	8	3, Y	Y	Y, Y	Y, Y	Y		
4	9	1, N	N	N, N	Y, Y			Y
5	12	2, Y	N	Y, Y	Y, Y	Y		
6	14	5, Y	N	Y, N	Y, Y		Y	
7	16	4, Y	N	Y, N	Y, Y		Y	
8	17	2, Y	N	Y, Y	Y, N		Y	
9	20	1, N	N	Y, N	Y, --			Y
10	22	2, Y	N	Y, Y	Y, Y	Y		
11	24	1, N	N	Y, Y	Y, --			Y
12	27	4, Y	N	Y, Y	Y, N		Y	
13	28	3, Y	N	Y, N	Y, Y		Y	
14	30	3, Y	N	Y, Y	Y, N		Y	
15	41	1, N	N	Y, Y	Y, Y			Y
16	42	1, N	N	Y, N	Y, --			Y
17	55	2, Y	N	Y, N	Y, N			Y
18	56	1, N	N	Y, N	Y, --			Y
19	57	2, Y	N	Y, N	Y, N			Y
20	58	2, Y	N	Y, N	Y, Y		Y	
21	59	1, N	N	Y, N	Y, --			Y
22	60	6, Y	Y	Y, Y	Y, Y	Y		
23	61	3, Y	Y	Y, Y	Y, Y	Y		
24	68	2, Y	N	Y, N	Y, Y		Y	
25	70	2, Y	N	Y, N	Y, Y		Y	
26	71	1, N	N	Y, N	Y, Y			Y
27	73	2, Y	N	Y, Y	Y, N		Y	
28	76	3, Y	N	Y, N	Y, N			Y
29	80	1, N	N	Y, N	Y, N			Y

30	88	4, Y	Y	Y, Y	Y, N	Y		
31	101	3, Y	N	Y, N	Y, Y		Y	
32	103	2, Y	N	Y, Y	Y, N		Y	
33	110	2, Y	N	Y, N	Y, N			Y
34	116	3, Y	N	Y, Y	Y, N		Y	
Total	**34**	**24**	**5**	**15**	**16**	**7**	**13**	**14**

Note. Y = Yes; N = No.