Universiteit Utrecht

The roles of relationship quality and dampening of positive affect in depression

E.B.L. Heitink
Studentnummer: 3790703

Begeleider: Prof. Dr. Paul A. Boelen

Universiteit Utrecht
Faculteit Sociale Wetenschappen

Master Klinische en Gezondheidspsychologie

Juli, 2015

Abstract

Depression is well-known for having impact on the partner relationship (and vice versa), while dampening of positive affect has recently been discovered as a contributing factor to depression as well. The current study examined the association between depression, relationship quality and dampening of positive affect with the intention of gaining more insight into the possible ways in which these three variables could be connected in two participant samples – one clinical (N = 74) and one student (N = 66). Two mediation models were hypothesized. The known associations between depression and respectively relationship quality and dampening were confirmed. A significant new association between relationship quality and dampening was found in the student sample, although it was not found in the clinical sample. Dampening of positive affect was found to be a significant mediator of the association between relationship quality and depression in the student sample, but not in the clinical sample. Possible explanations for these findings, limitations and suggestions for future research and practice are given.

Introduction

One's partner is the person that one shares almost everything with. In good times and bad, in sickness and in health. This is no different when mood disorders such as depression are in play. The role of the partner relationship has been a research topic of social scientists for many years. O'Leary, Christan, and Mendell (1994) for example performed a study with two follow-up measurements and found that the risk of depressive symptoms increased tenfold when someone has marital problems in comparison to people without these problems. In addition to this, Weissman (1987) found that the risk of major depression increased with a factor of 25 in unhappy marriages in comparison to problem-free marriages. In a more recent meta-analysis (N = 26 studies) it was found that a bad quality of the marital relationship is often associated with later depressive symptoms (Proulx, Helms, & Buehler, 2007). Whisman (2001) conducted a meta-analysis and found an average correlation of .42 for women (N= 3,745 within 26 studies) and .37 for men (N = 2,700 within 21 studies) between marital problems and depressive symptoms. Moreover, relationship troubles are a predictor of a significantly lower chance of remission from depression and have been called a possible causal factor of the onset of major depression (Denton et al., 2010; Whisman & Bruce, 1999; Whisman & Uebelacker, 2003).

Whisman and Uebelacker (2003) state that problems in intimate partner relationships and depression may influence each other in a bidirectional fashion. Relationship distress could lead to a higher risk of depression and could account for the symptoms lasting for a longer period of time. Whisman and Uebelacker explain this by using the diathesis-stress model. This states that a person has an inherent vulnerability or predisposition, while environmental factors could be the last straw that breaks the camel's back and lead to a mental disorder. Relationship distress could be this last straw by influencing mood, sleep and general functioning. The other possibility that Whisman and Uebelacker (2003) discuss – and both explanations are not mutually exclusive – is that mental issues lead to more relationship distress. Depression could e.g. lead to the depressed partner engaging in less activities and could create more interpersonal distance (Whisman & Uebelacker, 2003).

The connection between relationship and marital distress on the one hand and depression on the other hand has thus been extensively researched (Beach, Smith, & Fincham, 1994; Fincham, Beach, Harold, & Osborne, 1997; Mead, 2002; Whisman, 2001). The other side of the same coin has been researched as well: a happy marriage enhances mental health when compared to people who stay single (Horwitz, White, & Howell-White, 1996). Married people on average enjoy better mental health in comparison to people who are

not married (Kiecolt-Glaser & Newton, 2001).

There is evidence for a link between relationship quality and depression. However, there is much less insight in the exact mechanism underlying this association. Whisman (2001) and Mead (2002) emphasized the importance of conducting research into moderators and mediators of the relationship between relational distress (within a marital context) and depression, introducing a "second generation" of research into this topic. Moderators are variables that influence who will and who will not have an increased risk of depression within a distressed marriage, while mediators are variables that explain how and why a negative partner relationship influences depression (Mead, 2002). An example of a moderator variable within the relationship between marital distress and depression is gender, which means that depression and marital distress have different influences on men and women (Mead, 2002). An example of a mediator variable is self-esteem: there is some evidence that the relationship between depression and marital distress is mediated by self-esteem. This is the case for women but not for men, which even makes it a moderated mediation (Culp & Beach, 1998). Heene, Buysse and van Oost (2007) discovered that less constructive communication during conflicts and internal, stable and global causal attributions of negative relationship events are also significant mediators of the relationship between depressive symptoms and marital adjustment. Gender roles also appeared to play a role here (Heene et al., 2005). More insight into moderators and mediators playing a role in the link between relationship distress and depression is needed and could have practical implications for the factors that therapies are aimed at. For instance, if it was found that a certain negative communication style was a mediator of the association between relationship distress and depression, treatment could be aimed at improving this communication style, thereby influencing a positive treatment outcome.

One possible variable influencing the severity of depression is positive affect regulation. Affect regulation is operationalized as the way in which people influence the onset, course, and experience of their emotions (Carl, Soskin, Kerns, & Barlow, 2013). Positive affect regulation specifically concerns the way in which a person deals with positive affect as a counterpart of the regulation of negative affect, with the latter being associated with depression in e.g. the form of depressive rumination (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Nelis, Holmes, & Raes, 2015). There are several possible strategies of positive affect regulation. Two relevant examples of this are the adequate strategy of savouring, in which the person looks back and reflects on positive emotions, and the opposite inadequate strategy of dampening, referring to a focus on negative emotions and thoughts

reducing positive emotions (Carl et al., 2013). A study by Raes, Smets, Nelis, and Schoofs (2012) within two non-clinical groups (N = 487) pointed out that dampening as a strategy of regulating positive affect significantly predicts the severity of depressive symptoms. In addition to this, Werner-Seidler, Banks, Dunn, and Moulds (2013) found in three related studies that symptoms of depression are associated with dampening of positive affect. Recently, Nelis et al. (2015) found that higher levels of dampening were associated with higher concurrent depression in a sample of 345 participants; in addition they discovered that not only currently but also formerly depressed persons tended to use dampening as a strategy of positive affect regulation. Dampening as a response to positive affect has even been found to predict depression more strongly than rumination responses to negative affect in non-clinical student samples (Feldman, Joormann, & Johnson, 2008; Nelis et al., 2015; Raes et al., 2009). Dampening thus can be seen as a possibly important piece of the puzzle of explaining depression; accordingly the scientific and clinical interest in positive affect regulation is growing, after years of mainly focusing on negative emotions (Dunn, 2012; Raes et al., 2012).

As stated above there is still a lack of clarity about the mechanisms involved in the association between depression and relationship distress, in spite of several mediators already having been found. Another possible mediator explaining why poor relationship quality and more severe depression are strongly related is dampening as a strategy of positive affect regulation. As noted, dampening concerns the tendency of using mental strategies that lessen the intensity and duration of positive emotional states (Werner-Seidler et al., 2013). Examples of such strategies are fault finding – which means that the person only pays attention to negative elements or areas of improvement of positive events or emotions – and negative mental time travel, in which the person thinks back in a negative way, for instance by only naming the external causes of positive events or negatively anticipating on negative consequences of these (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010). Not much is known about the interpersonal effect of these mental strategies on dealing with positive emotions. Perhaps relationship distress could influence the way that people regulate affect. The distress experienced could cause a negative cognitive bias, thereby interfering with the ability to maintain and focus on positive affect (e.g. leading to dampening thoughts such as "My relationship is horrible, so this good feeling will not last either"). This would influence the severity of depressive symptoms. Feeling bad because of relationship distress could in other words lead people to be less able to process their positive emotions in adequate ways and via this way affect depression. On the other hand it is also possible that dysfunctional

positive affect regulation could have a negative effect on the quality of the partner relationship and via this way on depressive symptoms. For example, it is possible that the dysfunctional regulatory strategies also affect the emotions that the person has about the partner or the relationship. This would lead to the person only paying attention to the negative elements or areas of improvement of the relationship, or anticipating future negative consequences of positive relationship qualities (e.g. "These loving feelings about my partner will not last"). This could have negative influences on the quality of the relationship and via this way affect depression.

The aim of the current study was to shed light on the roles of relationship quality and dampening of positive affect in depression. It was expected that dampening as a form of downregulating positive affect would account for a part of the association between relationship quality and depression. The choice to focus on dampening was made because there is already a theoretical basis for the relationship between depressive symptoms and dampening which would be interesting to further explore (Raes et al., 2012; Werner-Seidler et al., 2013). From an alternative viewpoint, it was also seen as a possibility that relationship quality mediated the association between dampening of positive affect and depression. To investigate the assumed pathways the following research questions were tested. Firstly we studied whether relationship quality was associated with the severity of depression, and whether dampening of positive affect was associated with the severity of depression as well. Based on prior research it was expected that significant associations would be found (Beach et al., 1994; Fincham et al., 1997; Mead, 2002; Raes et al., 2012; Werner-Seidler et al., 2013; Whisman, 2001). It was also examined whether a bad relationship quality was associated with stronger dampening of positive affect. Two alternative mediational models were ultimately tested. One in which the linkage between relationship quality and depression was mediated by dampening and one in which the association between dampening and depression was mediated by relationship quality. These possible mediation effects were assessed in both a group of clinically depressed patients and a group of students. These two groups were assessed separately to achieve bigger generalizability of the outcomes than when only one group would be entered in the study.

Method

2.1 Participants

The participants of the current study were clients of Altrecht's outpatient clinic during the period between April 2014 and May 2015. All clients that started with a depression treatment

in this specialized mental health institution were included in the current study.

A second group of participants was included in the study for additional analysis and examination of the proposed effects. These participants were all students of Utrecht University during the time period of February 2015 until May 2015.

A total number of 121 Altrecht clients participated in the current study. However, 47 clients did not have a partner or did not complete all questionnaires and thus were excluded. This resulted in a total number of 74 Altrecht clients (30 males) forming the clinical sample of this study. Their mean age was 39.85 years (*SD* = 9.38; range 23 – 58 years). The mean age of the male clients was 43.37 years (*SD* = 9.00), while the mean age of the female clients was 37.53 years (*SD* = 9.02).

A total number of 71 students participated in the current study. Five of these participants did not complete all questionnaires and thus were excluded from the analysis, which brought the total to 66 students (12 males). Their mean age was 21.82 years (*SD* = 2.16; range 18 – 30). The mean age of the male students was 23.17 years (*SD* = 2.41), while the mean age of the female students was 21.52 years (*SD* = 2.00).

Only participants who were currently in a relationship were able to enter the study. A minimal relationship duration of one month was required to exclude very new relationships. Additional socio-demographic information of both participant groups was also obtained. In the clinical sample, 62.2% was living together with their partner and children. 21.6% was living together with their partner, 2.7% was living together with their children but not their partner, and 10.8% was living alone. 2.7% did not specify their current social status. The most common educational level in the clinical group was intermediate professional vocational training (MBO), with 40.5%. 18.9% had completed low-level vocational training (MAVO/VMBO), 12.2% had completed higher level education at college or university level (HBO/WO), 10.8% completed LTS/LBO, 8.1% completed primary school, 5.4% completed middle school at HAVO/VWO level, and 4.1% did not specify their highest level of education. Of the student participant group 25.4% was living together with their partner, 52.2% was living together with someone else (roommate), and 20.9% was living alone. 1.5% did not specify their current social status. The highest educational level of most students was middle school at HAVO/VWO level (68.7%). 28.4% had completed higher level education at college or university level, and 1.5% completed low-level vocational training (MAVO/VMBO). 1.5% did not specify their highest level of education. 83.6% of the student participant group had never been in treatment for a depressive disorder. 13.4% had once been in treatment for a depressive disorder, and 1.5% was currently receiving treatment for a

depressive disorder. 1.5% did not specify if they had ever received treatment for a depressive disorder. The average relationship duration of the student participant group was 29.42 months (*SD* = 20.87; range 2 – 102). Unfortunately, additional details about the length of the relationship of the clinical participant group were not obtained.

2.2 Measurement

A semi-structured interview was conducted in the clinical sample. This interview included the Checklist Staging and Profiling (appendix 1) and questions tapping several socio-demographical characteristics. After the interview participants completed several self-report instruments as part of a so-called Specialized Depression Assessment (or *Gespecialiseerd Depressie Assessment*, GDA). The instruments relevant for the current study will now be discussed in the order in which the participants completed them.

The student participant group completed an online survey at home which only included the following three questionnaires and several general socio-demographical questions.

2.2.1 Inventory of Depressive Symptomatology (Zelfinvullijst Depressieve Symptomen, IDS-SR-NL 30)

The 30-item Dutch version of the self-rated Inventory of Depressive Symptomatology (IDS-SR-NL 30) was used to assess the severity of depressive symptoms (appendix 2). This instrument was developed by Rush et al. (1986) and it assesses the symptom domains of major depression as stated in the DSM-IV. The criterion validity was proven in a large study of the psychometric properties of the assessment by Rush, Gullion, Basco, Jarrett, and Trivedi (1996) through comparison of the IDS-SR 30 with other assessment instruments of depressive symptomatology, with correlation coefficients of .88 and .91. The internal consistency was also proven, with a Cronbach's α of .94 within a sample of 337 adult outpatient subjects with major depressive disorder and 118 nonclinical subjects (Rush et al., 1996). Trivedi et al. (2004) studied the psychometric properties of the IDS-SR 30 as well and stated that highly acceptable psychometric properties were found.

2.2.2 Dyadic Adjustment Scale (DAS-14)

The Dyadic Adjustment Scale (DAS) is a widely used self-report instrument which measures relationship quality (Graham, Liu, & Jeziorski, 2006; Spanier, 1976). The DAS was developed by Spanier (1976) and measures dyadic adjustment via assessing the degree of

troublesome dyadic differences, interpersonal tensions and personal anxiety, dyadic satisfaction, dyadic cohesion, and consensus on important matters. The DAS can be used for both married and unmarried couples and thus investigates all sorts of dyadic relationships. A study by Spanier (1976) provided evidence for the criterion and construct validity of the DAS. Graham, Liu, and Jeziorski (2006) conducted a meta-analysis of 91 studies to examine the internal consistency of the DAS, which resulted in an acceptable internal consistency with a total mean Cronbach's alpha of $\alpha = .915$. The current study used a Dutch version of the Revised Dyadic Adjustment Scale (RDAS or DAS-14) (appendix 3), which is a 14-item shortened version, the total score of which provides an index of relationship satisfaction. Adequate validity and reliability of the RDAS were found in a study by Busby, Christensen, Crane, and Larson (1995).

2.2.3 Responses to Positive Affect Questionnaire (RPA-NL)

The Dutch version of the Responses to Positive Affect Questionnaire (RPA-NL) was used to measure dampening as a strategy of positive affect regulation (appendix 4). This self-report instrument was developed by Feldman et al. (2008). The current study only focused on the dampening index from the RPA, which was obtained by computing the total average score on the items concerning dampening. The structural validity and internal consistency of the instrument are acceptable (Feldman et al., 2008). Raes, Daems, Feldman, Johnson, and van Gucht (2009) conducted a study ($N = 698$) in which they found all subscales of the Dutch version of the RPA to have an adequate internal consistency with Cronbach's alphas of $\alpha = .80$ and $\alpha = .77$ for the subscale of dampening. They also found evidence of convergent and incremental validity using concurrent measures of e.g. depressive rumination.

2.3 Design and statistical analyses

The current study was a correlational design which assessed the interrelations between depression, relationship quality and dampening.

A mediation analysis was performed to examine the proposed hypotheses, using the steps of Baron and Kenny (1986). More precisely, a regression analysis was conducted to assess whether relationship quality was significantly associated with severity of depression; whether relationship quality was significantly associated with dampening of positive affect; and whether dampening of positive affect was significantly associated with severity of depression (while controlling relationship quality). After this it was examined whether the association between relationship quality and depression significantly decreased while

controlling for dampening. If this were the case, dampening of positive affect would be a mediator of the effect between relationship quality and severity of depression. To test the alternative mediational model, we first assessed whether dampening of positive affect was significantly associated with severity of depression; whether dampening of positive affect was significantly associated with relationship quality; whether relationship quality was significantly associated with severity of depression (while controlling dampening); and finally whether the association between dampening of positive affect and depression significantly decreased while controlling for relationship quality. This would provide evidence of whether relationship quality was a mediator of the effect between dampening of positive affect and severity of depression.

Missing values on the IDS-SR-NL 30 in the student sample were replaced by a "0" (i.e. the lowest possible score) on the corresponding item, treating these symptoms as not present to be as conservative as possible.

2.3.1. Software

IBM Statistical Package for the Social Sciences (SPSS) Statistics 22.0 and Microsoft Excel were utilized for the statistical analyses of the current study. The online part of the study was programmed with the online application of the free website http://www.thesistools.nl.

2.4. Procedure

All clients whose treatment for depression started during the time period in which the study was conducted were invited to take part in the study. The Specialised Depression Assessment (or *Gespecialiseerd Depressie Assessment*, GDA) would take place after the intake process was completed. The researchers contacted the participants directly and explained the aim of the study, after which the participant could voluntarily choose participate or not. The GDA, including the self-report questionnaires, was completed in one 1 to 2 hour session at the outpatient clinic. Some exceptions were made when the questionnaires took too much energy and time from the participants. These participants could take some questionnaires home or a second appointment was made to complete the entire GDA. The participants were asked if they were interested in the final results of the study and if this was the case their e-mail address was obtained and a summary was sent after completion of the current study.

The data was also used as input for clinical advice about the current standings of the depressive disorder of the participant. This GDA summary was sent to the therapist of the participant and was also saved in their personal digital file. The personal therapist of the

client then explained the findings to their client. The data obtained thus served two purposes: both a scientific and a clinical one.

The participants from Utrecht University were recruited via flyers spread throughout the buildings of Utrecht University and via an internal study recruiting website of Utrecht University. The flyers and website provided a link which the participants could use to access the online questionnaires and complete them in their own environment. The aims and procedure of the study were explained in a welcome message and informed consent was sought and obtained. After this the IDS-SR-NL 30, DAS-14, RPA and some general demographic questions (age, gender, relationship duration, social status, educational level, and whether they had ever been treated for a depressive disorder) were subsequently presented and completed in one sitting. When the participants completed the questionnaires they were thanked for their cooperation and could close the website. The participants could fill in their e-mail address if they were interested in the results of the study and could obtain course credits for their participation in the study. The duration of this online assessment was approximately 20 minutes.

2.4.1. Ethical considerations

Participation in the study was voluntary. All clients whose treatment for depression started during the period of time in which the study was conducted were invited to take part in the study. All participants from both groups were informed about the aims and confidentiality of the study and gave their written informed consent. Participants were also informed that they could ask questions at any time before, during and after the assessment and they could stop at any moment.

Results

3.1 Descriptive statistics

The average depression scores (maximum obtainable score of 87) of the clinical participant group (M = 45.78, SD = 13.02) indicated a severe depression on average, while the average depression scores of the student participant group (M = 14.42, SD = 9.72) indicated a mild depression on average. This difference was significant with t (134) = 16.26, $p < .01$. The maximum obtainable score on the DAS-14 is 69, with scores equal to or higher than 49 indicating that the individual is satisfied with their relationship. This indicates that the clinical participant group on average had an unsatisfactory relationship (M = 40.77, SD = 8.96), while the students on average had a satisfactory relationship (M = 49.18, SD = 8.24). This

difference was significant with t (138) = -5.76, $p < .01$. 27.8% of the clinical participant group scored above the cut-off line (indicating a satisfactory relationship), while 62.12% of the student participant group scored above this line. There are no cut-off points for the scores on dampening on the RPA-NL (maximum obtainable score of 5), but the clinical participant group on average used dampening as a strategy of positive affect regulation more strongly (M = 2.15, SD = .60) than the student participant group (M = 1.58, SD = .38). This difference was significant t (125.59) = 6.82, $p < .01$.

3.2 Clinical participant group analysis

Firstly, the analyses of the clinical participant group will be discussed. The data was examined for possible outliers using scatterplots and the rule of thumb that any score that differed three or more standard deviations from the mean was considered an outlier. No obvious outliers were found.

3.2.1 Preliminary analysis of the association between depression, relationship quality, and dampening in the clinical participant group

A one-tailed Pearson correlation analysis was used to investigate the expectation that a bad relationship quality and stronger dampening of positive affect were associated with the severity of depression in the clinical participant group. Prior to performing this analysis the assumption of normality was evaluated by examining histograms. The assumption of normality was met for all relevant variables. Depression and relationship quality were significantly negatively correlated (r = -.260, $p < .05$), while depression and dampening were significantly positively correlated (r = .445, $p < .01$). Dampening and relationship quality were not significantly correlated (r = .065, $p > .05$)

3.2.2. Mediation analyses

Next, the two mediation analyses were performed using the steps provided by Baron and Kenny (1986). Since regression analyses were used for this mediation analysis, the assumptions of regression models were checked prior to conducting the analysis in every regression model mentioned below. Tests for multicollinearity showed that a very low level of multicollinearity was present. The assumption of independent errors was tested via the Durbin-Watson test, which indicated that residual terms were uncorrelated, with only a small positive correlation. Scatterplots of standardized residuals against standardized predicted values indicated that the assumption of homoscedasticity of residuals was met; the variance

of the residuals was the same for all predicted scores for all regression analyses.

Firstly, the hypothesis that the association between relationship quality and depression is mediated by dampening of positive affect was tested. A linear regression analysis of relationship quality on depression was performed. The association between relationship quality and depression was significant with $\beta = -.260$ ($p < .05$), while relationship quality accounted for $R^2 = .067$ of the variance in depression scores. After this a linear regression analysis of relationship quality on dampening was performed. This association was not significant, with $\beta = .065$ ($p > .05$), while relationship quality accounted for $R^2 = .004$ of the variance in dampening scores. Because this association was not significant no further steps of the mediation analysis were performed.

Secondly, the hypothesis that the association between dampening of positive affect and depression is mediated by relationship quality was tested. A linear regression analysis of dampening on depression was performed. The association between dampening and depression was significant with $\beta = .445$ ($p < .01$), while dampening accounted for $R^2 = .198$ of the variance in depression scores. After this, a linear regression analysis of dampening on relationship quality was performed. The association between dampening and relationship quality was not significant with $\beta = .065$ ($p > .05$). Dampening accounted for $R^2 = .004$ of the variance in relationship quality scores. Because this association was not significant no further steps of the mediation analysis were performed.

3.3 Student participant group analysis

Secondly, the statistical analyses of the student participant group will be discussed. Before the statistical analyses were performed the data was checked for possible outliers. One of the participants had a relatively high score of 54 on the depression variable which was an obvious outlier from the rest of the data. Another participant had a relatively low score of 13 on the relationship quality variable which was an obvious outlier as well. For this reason these participants were excluded from the further statistical analyses, bringing the total participant number for these to 64.

3.3.1 Preliminary analysis of the association between depression, relationship quality, and dampening in the student participant group

In order to investigate the hypothesis that a bad relationship quality and stronger dampening of positive affect are associated with the severity of depression in the student group a one-tailed Pearson correlation analysis was performed. The assumption of normality was met for

all three variables. Depression and relationship quality were significantly negatively correlated (r = -.320, p < .01), while depression and dampening were significantly positively correlated (r = .436, p < .01). Dampening and relationship quality were significantly negatively correlated (r = -.436, p < .01). All hypothesized correlations were in the expected directions and significant.

3.3.2. Mediation analyses

Two mediation analyses were performed using the steps provided by Baron and Kenny (1986). Using the statistical methods described above, it was observed that assumptions for these analyses were met.

Firstly, the hypothesis that the association between relationship quality and depression is mediated by dampening of positive affect was investigated. A linear regression analysis of relationship quality on depression was performed. The association between relationship quality and depression was significant with β = -.320 (p = .01), while relationship quality accounted for R^2 = .102 of the variance in depression scores. After this, a linear regression analysis of relationship quality on dampening was performed. The association between relationship quality and dampening was significant with β = -.327 (p < .01). Relationship quality accounted for R^2 = .107 of the variance in dampening scores. Next a linear regression of dampening on depression while controlling for relationship quality was performed. Dampening significantly affected depression while controlling for relationship quality (β = .372, p < .01). When dampening was entered as a predictor relationship quality was no longer significantly associated with depression (β = -.198, p > .05), which indicates full mediation. Sobel test was used to test for the significance of this mediation effect with S = -1.98 (SE = .075; p < .05), which indicates that the effect of relationship quality on depression was indeed significantly mediated by dampening. The model is illustrated in figure 1 below.

Secondly, the hypothesis that the association between dampening of positive affect and depression is mediated by relationship quality was investigated. A linear regression of dampening on depression was performed. The association between dampening and depression was significant with β = .436 (p < .01), while dampening accounted for R^2 = .190 of the variance in depression scores. Next a linear regression of relationship quality on depression while controlling for dampening was performed. Relationship quality did not significantly affect depression when dampening was entered as a predictor (β = -.198, p > .05). Because this association was not significant no further steps of the mediation analysis were performed.

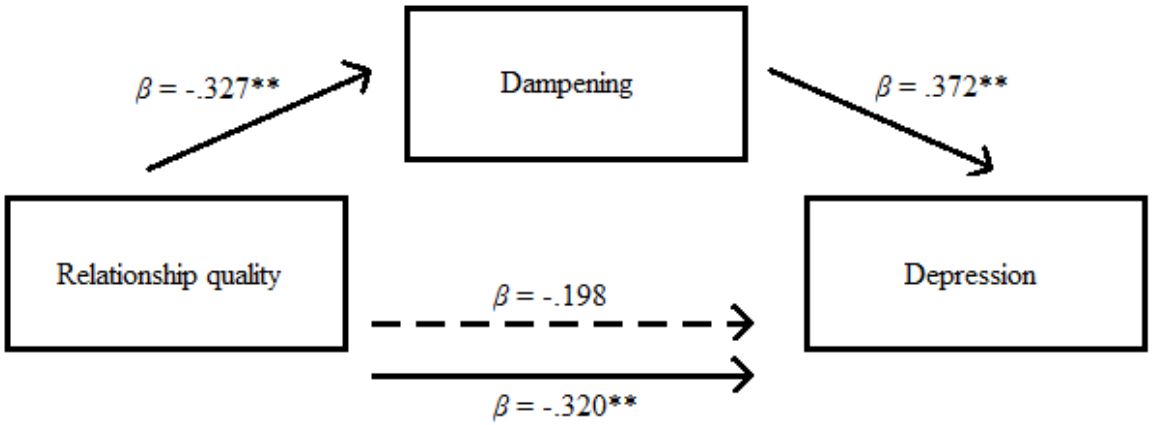

Figure 1. Dampening mediates the association between relationship quality and dampening. The dashed line indicates the direct effect of relationship quality on depression while controlling for dampening. All coefficients are standardized; ** $p < .01$.

Discussion

The direct association between depression and relationship distress has been investigated thoroughly by social scientists (Beach et al., 1994; Fincham et al., 1997; Mead, 2002; Whisman, 2001). Relationship troubles have even been proposed as a possible causal factor of the onset of major depression (Denton et al., 2010; Whisman & Bruce, 1999; Whisman & Uebelacker, 2003;). However, not much is known about mechanisms involved in this association. The current research attempted to shed light on this by proposing dampening of positive affect as a possible mediator of the association between depression and relationship quality. Dampening of positive affect is a relatively limitedly researched topic, but has repeatedly been shown to be significantly related to depression (Nelis et al., 2015; Werner-Seidler et al., 2013). It was proposed that dampening of positive emotions could affect relationship quality and vice versa. Down-regulating positive emotions could influence the emotions involved in the relationship in the way that the person for example only pays attention to areas of improvement or negative elements of the relationship (e.g. “My relationship is alright, but I keep thinking about us not going out much”). On the other hand, the relationship distress experienced could fuel a focus on negative thoughts and feelings, thereby interfering with the ability to maintain and focus on positive affect (e.g. “I cannot thoroughly enjoy this good feeling/activity, thoughts about my bad relationship keep popping up”). It was thus hypothesized that dampening of positive affect could influence the

association between relationship quality and depression, and that relationship quality could influence the association between dampening and depression. Two mediation models were thus proposed. These were tested in two groups – a clinically depressed group and a student participant group.

Relationship quality and depression were found to be significantly negatively correlated in both participant samples, which confirms the findings of previous research (Beach et al., 1994; Fincham et al., 1997; Mead, 2002; Whisman, 2001). In addition to this, depression and dampening were found to be significantly correlated in both samples, which is in line with previous recent research as well (Nelis et al., 2015; Raes et al., 2012; Werner-Seidler et al., 2013). Dampening and relationship quality were also found to be significantly negatively correlated in the student sample. More usage of dampening as a strategy of positive affect regulation was thus associated with worse relationship quality in this sample (and vice versa). To our knowledge, this association was not previously examined or confirmed in research. However, this association was not found in the clinical sample. This first discovery of a possible link between dampening of positive affect and relationship quality is worth being looked into more thoroughly in future research.

Dampening of positive affect was found to be a significant mediator of the association between relationship quality and depression in the student sample, but not in the clinical sample. This sheds light on the way in which relationship quality and depression could be related. Relationship distress presumably could indeed cause a negative cognitive bias which leads people to process their positive emotions in a less adequate way, which in turn affects depression. Therapeutic interventions specifically aimed at influencing dampening could be developed to influence positive treatment outcome and utilize this intriguing finding concerning the way in which relationship quality influences depression. It is however imperative to further explore the reasons why this mediation was present in the student sample but not in the clinical sample before undertaking this.

Relationship quality was not found to be a mediator of the association between dampening of positive affect and depression in either sample, which indicates that relationship quality did not explain the "why" of the association between dampening and depression in these samples. Perhaps the relationship distress experienced by the participants was not large enough to have an influence on dampening in this way, as both samples did not have a severely low mean score on the relationship quality variable. It could be a focus of future research to investigate this hypothesis in a more relationally distressed sample. It is also possible that dampening does in fact not affect the interpersonal emotions involved in

relationships as strongly as it affects other, more intrapersonal emotions. This could be a focus of future research as well.

The fact that the association between relationship quality and dampening was only found in the student sample is intriguing. Both samples were however very different in nature and had significantly different mean scores on all three variables. The students were significantly more satisfied with their relationship, used dampening significantly less, and were not clinically depressed, as opposed to the clinical sample. The relationships of the students were also probably relatively newer than the relationships of the clinical participants, the students were on average 18 years younger and thus often in a completely different life phase than the clinical participants, the students did not have children as opposed to a majority of the clinical sample, and their relationships were usually non-marital. It is e.g. possible that marital relationships have not only existed for a longer period of time, but may also be qualitatively different from non-marital relationships. Less students lived together with their partner in one house as well, which probably also had effects on the partner relationship. Moreover, the students were all college/university students and thus their educational level was different from the clinical sample as well. It is possible that the association between dampening, relationship quality and depression is indeed different for both groups because of this variety of contrasting characteristics.

The current research dealt with some limitations. An online research paradigm was utilized for the student participant group. It is not certain that these participants understood all the questions of the questionnaires because they could not ask the researcher about these like the participants in the clinical sample could. It is also not certain whether the students were truthful in the information they supplied because of their desire to obtain course credits, or whether they actually completed the questionnaires without their partner present. Completing the questionnaires with their partner present specifically could have led to a social desirability bias leading to a more favourable image of the relationship than was actually experienced by the participant. The online research paradigm thus contained less control than the real life meeting which took place with the participants of the clinical sample. In addition to this, the current study relied exclusively on self-report measurements from the clients' or students' perspective. It might be relevant to study the answers of both partners on the questionnaires to assess to what extent their perception of the relationship differs and also if and how dampening of positive emotions influences the partners individually.

Another limitation of the current study was not taking the concept of gender into account. Mead (2001) described that the construct of gender is an indispensable factor in any

study regarding marital distress and depression. In a study by Mead (2002) gender was even found to be a moderating factor, while Whisman (2001) stated in his meta-analysis of 26 studies that the correlation between depressive symptoms and marital dissatisfaction is significantly larger for women than for men. Fincham et al. (1997) even proposed that different causal models in the association between marital satisfaction and depression could be at play for the two genders. However, there is currently no research into or evidence of gender differences in dampening as a strategy of positive emotion regulation. Because of this reason it was decided not to look into the possibility of gender differences in the proposed hypotheses. It goes without saying that this needs to be a vital part of future research. The fact that 54 of the 66 participants in the student sample and 44 of the 74 participants in the clinical sample were female could have influenced the findings for this reason as well and also made it difficult to study the effects of gender in this study.

Despite these limitations the association between relationship quality and dampening and the mediation model in which dampening is a mediator of the association between relationship quality and depression were indeed found to be statistically significant in the student sample. This exciting new path should be researched in different samples to achieve generalizability while reducing the limitations mentioned above. A longitudinal research design would be vital to also assess whether the examined effects could be causal in nature. Other interesting paths worth exploring would be to look into negative affect regulation and its association with relationship quality, or to explore the positive affect regulation strategy of savouring. The finding of an association between relationship quality and dampening in the student sample signifies that the possible link between relationship quality and these affect regulation forms and strategies deserves more attention.

In conclusion, the current research expanded past research into depression by confirming the associations between depression and respectively relationship quality and dampening of positive emotions in both a clinical and student group. It also provided the first clue of an association between dampening and relationship quality, and by finding that dampening was a significant mediator of the association between relationship quality and depression in the student sample it shed more light on the roles of these factors in depression. The findings of the current study give rise to optimism and could inspire future research directions which could be relevant for clinical practice.

Acknowledgements

At the end of this study I would like to express my gratitude towards all persons who participated in this research from both participant groups. The current study would not have been possible without their time, effort and permission. I wish the clinical participant group all the best in their recovery from depression. I felt humbled to be allowed to interview you at your darkest times and I feel the deepest respect for you. This gratitude is also aimed at the Altrecht outpatient clinic.

The guidance and advise provided by prof. dr. P.A. Boelen have been another essential factor in the realisation of the current study and I am very grateful for that. I would also like to thank dr. H.J. Conradi of the University of Amsterdam for his feedback on a first draft of this research. My gratitude is also aimed towards M. van Woerkom, who I have spent a year working with at this project. Not only did she complete a large number of GDA's, but she also provided moral support and personally helped me through a lot of distress while working on this research.

Last but not least I would like to thank all of my proof-readers and moral support providers – L.M. Weijers, M.N.G. Werrij, T.D. de Vries, R. Wijmer, and J.J. Knibbe, among others – for their patience and helpful feedback.

References

Aldao, A., Nolen-Hoeksema, S. & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30,* 217 – 237. doi: 10.1016/j.cpr.2009.11.004

Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations. *Journal of Personality and Social psychology, 51,* 1173 – 1182. doi: 10.1037/0022-3514.51.6.1173

Beach, S.R.H., Smith, D.A. & Fincham, F.D. (1994). Marital interventions for depression: empirical foundation and future prospects. *Applied & Preventive Psychology, 3,* 233 – 250. doi: 10.1016/S0962-1849(05)80097-6

Busby, D.M., Christensen, C., Crane, D.R. & Larson, J.H. (1995). A revision of the Dyadic Adjustment Scale for use with distressed and nondistressed couples: construct hierarchy and multidimensional scales. *Journal of Marital and Family Therapy, 21,* 289 – 308. doi: 10.1111/j.1752-0606.1995.tb00163.x

Carl, J.R., Soskin, D.P., Kerns, C. & Barlow, D.H. (2013). Positive emotion regulation in emotional disorders: a theoretical review. *Clinical Psychology Review, 33,* 343 – 360. doi: 10.1016/j.cpr.2013.01.003, L.N. & Beach, S.R.H. (1998). Marriage and depressive symptoms: The role and bases of self-esteem differ by gender. *Psychology of Women Quarterly, 22,* 647 – 663. doi: 10.1111/j.1471-6402.1998.tb00183.x

Denton, W.H., Carmody, T.J., Rush, A.J., Thase, M.E., Trivedi, M.H., Arnow, B.A., Klein, D.N. & Keller, M.B. (2010). Dyadic discord at baseline is associated with lack of remission in the acute treatment of chronic depression. *Psychological Medicine, 40,* 415 – 424. doi: 10.1017/S0033291709990535

Dunn, B.D. (2012). Helping depressed clients reconnect to positive emotion experience: current insights and future directions. *Clinical Psychology and Psychotherapy, 19,* 326 – 340. doi: 10.1002/cpp.1799

Feldman, G.C., Joormann, J. & Johnson, S.L. (2008). Responses to positive affect: a self-report measure of rumination and dampening. *Cognitive Therapy and Research, 32,* 507 – 525. doi: 10.1007/s10608-006-9083-0

Fincham, F.D., Beach, S.R.H., Harold, G.T. & Osborne, L.N. (1997). Marital satisfaction and depression: different causal relationships for men and women? *Psychological Science, 8*, 351 – 357. doi: 10.1111/j.1467-9280.1997.tb00424.x

Graham, J.M., Liu, Y.J. & Jeziorski, J.L. (2006). The Dyadic Adjustment Scale: A reliability

generalization meta-analysis. *Journal of Marriage and Family, 68*, 701 – 717. doi: 10.1111/j.1741-3737.2006.00284.x

Heene, E., Buysse, A. & van Oost, P. (2005). Indirect pathways between depressive symptoms and marital distress: the role of conflict communication, attributions and attachment style. *Family Process, 44,* 413 – 440. doi: 10.1111/j.1545-5300.2005.00070.x

Heene, E., Buysse, A. & van Oost, P. (2007). An interpersonal perspective on depression: the role of marital adjustment, conflict communication, attributions, and attachment within a clinical sample. *Family Process, 46,* 499 – 514. doi: j.1545-5300.2007.00228.x

Horwitz, A.V., White, H.R. & Howell-White, S. (1996). Becoming married and mental health: a longitudinal study of a cohort of young adults. *Journal of Marriage and Family, 58,* 895 – 907. doi: 10.2307/353978

Kiecolt-Glaser, J.K. & Newton, T.L. (2001). Marriage and health: his and hers. *Psychological Bulletin, 127,* 472 – 503. doi: 0033-2909.127.4.472

Mead, D.E. (2002). Marital distress, co-occurring depression, and marital therapy: a review. *Journal of Marital and Family Therapy, 28,* 299 – 314. doi: j.1752-0606.2002.tb01188.x

Nelis, S., Holmes, E.A. & Raes, F. (2015). Response styles to positive affect and depression: concurrent and prospective associations in a community sample. *Cognitive Therapy and Research, 39.* doi: 10.1007/s10608-015-9671-y

O'Leary, D.K., Christian, J.L. & Mendell, N.R. (1994). A closer look at the link between marital discord and depressive symptomatology. *Journal of Social and Clinical Psychology, 13*, 33 – 41. doi: 10.1521/jscp.1994.13.1.33

Proulx, C.M., Helms, H.M. & Buehler, C. (2007). Marital quality and personal well-being: A meta-analysis. *Journal of Marriage and Family, 69,* 576 – 593. doi: j.1741-3737.2007.00393.x

Quoidbach, J., Berry, E.V., Hansenne, M., Mikolajczak, M. (2010). Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening strategies. *Personality and Individual Differences, 49,* 368 – 373. doi: 10.1016/j.paid.2010.03.048

Raes, F., Daems, K., Feldman, G.C., Johnson, S.L. & Van Gucht, D. (2009). A psychometric evaluation of the Dutch version of the Responses to Positive Affect Questionnaire. *Psychologica Belgica, 49,* 293 – 310. doi: 10.5334/pb-49-4-293

Raes, F., Smets, J., Nelis, S. & Schoofs, H. (2012). Dampening of positive affect prospectively predicts depressive symptoms in non-clinical samples. *Cognition and Emotion, 26*, 75 – 82. doi: 10.1080/02699931.2011.555474

Rush, A.J., Giles, D.E., Schlesser, M.A., Fulton, C.L., Weissenburger, J.E. & Burns, C.T. (1986). The Inventory of Depressive Symptomatology (IDS): Preliminary findings. *Psychiatry Research, 18,* 65 – 87. doi: 10.1016/0165-1781(86)90060-0

Rush, A.J., Gullion, C.M., Basco, M.R., Jarrett, R.B. & Travedi, M.H. (1996). The Inventory of Depressive Symptomatology (IDS): Psychometric properties. *Psychological Medicine, 26,* 477 – 486. doi: 10.1017/S0033291700035558

Spanier, G.B. (1976). Measuring dyadic adjustment: new scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and Family, 38,* 15 – 28. doi: 10.2307/350547

Trivedi, M.H., Rush, A.J., Ibrahim, H.M., Carmody, T.J., Biggs, M.M., Suppes, T., Crismon, M.L., Shores-Wilson, K., Toprac, M.G., Dennehy, E.B., Witte, B. & Kashner, T.M. (2004). The Inventory of Depressive Symptomatology, Clinician Rating (IDS-C) and Self-Report (IDS-SR), and the Quick Inventory of Depressive Symptomatology, Clinician Rating (QIDS-C) and Self-Report (QIDS-SR) in public sector patients with mood disorders: a psychometric evaluation. *Psychological Medicine, 34,* 73 – 82. doi: 10.1017/S0033291703001107

Weissman, M.M. (1987). Advances in psychiatric epidemiology: rates and risks for major depression. *American Journal of Public Health, 77,* 445 – 451. doi: 10.2105/AJPH.77.4.445

Werner-Seidler, A., Banks, R., Dunn, B.D. & Moulds, M.L. (2013). An investigation of the relationship between positive affect regulation and depression. *Behaviour Research and Therapy, 51,* 46 – 56. doi: 10.1016/j.brat.2012.11.001

Whisman, M.A. & Bruce, M.L. (1999). Marital dissatisfaction and incidence of major depressive episode in a community sample. *Journal of Abnormal Psychology, 108,* 674 – 678. doi: 10.1037/0021-843X.108.4.674

Whisman, M.A. (2001). The association between depression and marital dissatisfaction. In S.R.H. Beach (Ed.), *Marital and family processes in depression: A scientific foundation for clinical practice* (p. 3- 24). Washington DC: American Psychological Association. doi: 10.1037/10350-001

Whisman, M.A. & Uebelacker, L.A. (2003). Comorbidity of relationship distress and mental and physical health problems. In D.K. Snyder & M.A. Whisman (Eds.), *Treating*

difficult couples: Helping clients with coexisting mental and relationship disorders (pp. 3- 26). New York: Guilford Press.

Appendix 1 – Checklist Stagering en Profilering (Checklist Staging and Profiling)

Naam patiënt: Geboortedatum:
Invuldatum: Ingevuld door:

Vraag	**Mogelijke antwoorden**	**Antwoord**
1) Leeftijd in jaren		Jr
2) Geslacht	1= Man 2 =Vrouw	
3) Geboorteland: - Patient - Vader - Moeder		
4) Beloop: huidige stageringsstadium	1 = Prodromaal 2 = Eerste episode 3 = Restsymptomen na 1e episode 4 = 1e recidief episode 5 = 2e/3e/4e recidieve episode of chronische depressie (>2 jr)	
5) startjaar & duur van: - eerste episode: - huidige episode:		Startjaar: Duur: Startjaar: Duur:
6) Hoogste afgeronde schoolopleiding	1 = Lagere school 2 = LTS/ LBO (of vergelijkbaar) 3 = Mavo / VMBO 4 = MBO 5 = Havo / VWO 6 = HBO/ Universiteit 7 = anders, namelijk ……	
7) Sociale status	1 = Samenwonend met partner en kinderen 2 = Samenwonen met partner 3 = Samenwonend met kinderen 4 = Samenwonend met iemand anders (huisgenoot) 5 = Alleen wonend 6 = Gescheiden	
8) Huidige DSM-IV classificatie:		As 1: As 2: As 3: As 4:

		As 5: GAF (huidig): GAF (hoogste niveau afgelopen jaar):
9) Huidige mate van suïcidaliteit (Gebruik criteria Kerkhof/van Heeringen)	1 = Geen 2 = Licht 3 = Matig/ambivalent 4 = Ernstig 5 = Zeer ernstig	
10) Ernst van de huidige depressieve episode?	1 = Licht: 5 kenmerken 2 = Matig: 6-7 kenmerken 3 = Ernstig 8-9 kenmerken	

Vraag:	**Mogelijke antwoorden**	**Antwoord:**
11) Profileringkenmerken aanwezig? Zo ja welke?	1 = Seizoensgebonden depressie 2 = Atypische depressie 3 = Vitale depressie 4 = Psychotische depressie 5 = Vasculaire problematiek 6 = Vroege traumatisering	
12) Eerdere gesprekstherapie volgens de richtlijn? Effect(volgens onderzoeker)	1 = Goed 2 = Twijfelachtig 3 = Onvoldoende 4 = Geen	
13) Eerdere farmacotherapie volgens de richtlijn? Effect (volgens onderzoeker)	1 = Goed 2 = Twijfelachtig 3 = Onvoldoende 4 = Geen	
14) Effect eerdere gesprekstherapie Effect eerdere farmacotherapie (Oordeel cliënt)	1 = Goed 2 = Twijfelachtig 3 = Onvoldoende 4 = Geen Aantal therapieën zonder effect:…..	

Appendix 2 – Inventory of Depressive Symptomatology (IDS-SR-NL 30)

ZELFINVULLIJST DEPRESSIEVE SYMPTOMEN
(INVENTORY OF DEPRESSIVE SYMPTOMATOLOGY: IDS-SR) [1]
(In te vullen door patiënt)

Naam: …….. Datum: … … - … … - … …

Kruis bij elke vraag het antwoord aan dat de afgelopen zeven dagen het meest op u van toepassing was

1. In slaap vallen:
0. Het duurt nooit langer dan 30 minuten om in slaap te vallen.
1. Het duurt tenminste 30 minuten om in slaap te vallen, minder dan de helft van de week.
2. Het duurt tenminste 30 minuten om in slaap te vallen, meer dan de helft van de week.
3. Het duurt meer dan 60 minuten om in slaap te vallen, meer dan de helft van de week.

2. Slaap gedurende de nacht:
0. Ik word 's nachts niet wakker.
1. Ik slaap onrustig en licht en word een aantal keren per nacht even wakker.
2. Ik ben tenminste één keer per nacht klaar wakker, maar val weer gemakkelijk in slaap.
3. Ik word vaker dan één keer per nacht wakker en blijf dan 20 minuten of langer wakker, meer dan de helft van de week.

3. Te vroeg wakker worden:
0. Meestal word ik niet eerder dan 30 minuten voordat ik op moet staan, wakker.
1. Ik word meer dan 30 minuten voordat ik op moet staan wakker, meer dan de helft van de tijd.
2. Ik word tenminste 1 uur voordat ik op moet staan wakker, meer dan de helft van de tijd.
3. Ik word tenminste 2 uur voordat ik op moet staan wakker, meer dan de helft van de tijd.

4. Te veel slapen:
0. Ik slaap niet langer dan 7-8 uur per nacht, zonder overdag een dutje te doen.
1. Ik slaap niet langer dan 10 uur binnen één etmaal (inclusief dutten).
2. Ik slaap niet langer dan 12 uur binnen één etmaal (inclusief dutten).
3. Ik slaap langer dan 12 uur binnen één etmaal (inclusief dutten).

[1] Nederlandse vertaling: Altrecht GGZ. Copyright © 1995/2005

5. Somber voelen:

0. Ik ben niet somber.
1. Ik ben minder dan de helft van de tijd somber.
2. Ik ben meer dan de helft van de tijd somber.
3. Ik ben bijna altijd somber.

6. Prikkelbaar voelen:

0. Ik voel mij niet prikkelbaar.
1. Ik voel mij minder dan de helft van de tijd prikkelbaar.
2. Ik voel mij meer dan de helft van de tijd prikkelbaar.
3. Ik voel mij bijna altijd heel erg prikkelbaar.

7. Angstige of gespannen voelen:

0. Ik voel mij niet angstig of gespannen.
1. Ik voel mij minder dan de helft van de tijd angstig of gespannen.
2. Ik voel mij meer dan de helft van de tijd angstig of gespannen.
3. Ik voel mij bijna altijd uiterst angstig of gespannen.

8. De invloed van prettige gebeurtenissen op uw stemming:

0. Bij prettige gebeurtenissen verbetert de stemming gedurende een aantal uren tot een normaal niveau.
1. Bij prettige gebeurtenissen verbetert de stemming, maar ik voel mij niet zoals gewoonlijk.
2. Mijn stemming klaart slechts op bij een beperkt aantal zeer gewenste en aangename gebeurtenissen.
3. Mijn stemming klaart helemaal niet op, ook al gebeuren er prettige dingen in mijn leven.

9. Stemming in relatie tot de tijd van de dag:

0. Er is geen duidelijk verband tussen mijn stemming en de tijd van de dag.
1. Mijn stemming houdt vaak verband met de tijd van de dag ten gevolge van omgevingsfactoren (bv alléén zijn, werken).
2. Over het algemeen is mijn stemming meer gerelateerd aan de tijd van de dag dan aan gebeurtenissen in mijn leven.
3. Mijn stemming is duidelijk en voorspelbaar beter of slechter op een bepaald tijdstip van de dag.

9A. Is uw stemming typisch slechter in de (één aankruisen):

0. Ochtend?
1. Middag?
2. Avond?

9B. Zijn uw stemmingswisselingen toe te schrijven aan de omgeving? (één aankruisen)

0. Ja
1. Nee

10. Kwaliteit van uw stemming:

0. De stemming (innerlijke gevoelens) die ik ervaar is vaak een normale stemming.
1. Mijn stemming is somber, maar deze somberheid lijkt sterk op verdriet.

2. Mijn stemming is somber, maar deze somberheid is enigszins anders dan wat ik bij verdriet zou voelen.
3. Mijn stemming is somber, maar deze somberheid voelt geheel anders dan verdriet.

Beantwoord nu óf vraag 11 óf vraag 12 (dus niet beide)

11. Verminderde eetlust:

0. Mijn eetlust is niet anders dan gewoonlijk.
1. Ik eet wat minder vaak of kleinere hoeveelheden dan gewoonlijk.
2. Ik eet veel minder dan gewoonlijk en alleen met inspanning.
3. Ik eet nauwelijks binnen een etmaal en alleen met extreme inspanning of op aandringen van anderen.

12. Toegenomen eetlust:

0. Mijn eetlust is niet anders dan gewoonlijk.
1. Ik voel vaker dan gewoonlijk de behoefte om te eten.
2. Ik eet regelmatig vaker en grotere hoeveelheden dan gewoonlijk.
3. Ik voel een sterke neiging om tijdens en tussen de maaltijden door te veel te eten.

Beantwoord nu óf vraag 13 óf vraag 14 (dus niet beide)

13. Gewichtsafname gedurende de afgelopen 2 weken:

0. Geen gewichtsverandering.
1. Ik heb het gevoel dat ik wat ben afgevallen.
2. Ik ben 1 kg of meer afgevallen.
3. Ik ben 2½ kg of meer afgevallen.

14. Gewichtstoename gedurende de afgelopen 2 weken:

0. Geen gewichtsverandering.
1. Ik heb het gevoel dat ik wat ben aangekomen.
2. Ik ben 1 kg of meer aangekomen.
3. Ik ben 2½ g of meer aangekomen.

15. Concentratie/besluitvaardigheid:

0. Er is geen verandering in gebruikelijke concentratievermogen of in besluitvaardigheid.
1. Ik voel mij nu en dan besluiteloos of merk dat ik mijn aandacht er niet bij kan houden.
2. Ik heb bijna altijd grote moeite om mijn aandacht vast te houden en om beslissingen te nemen.
3. Ik kan mij niet goed genoeg concentreren om te lezen of kan zelfs niet de kleinste beslissingen nemen.

16. Zelfbeeld:

0. Ik vind mijzelf even waardevol en nuttig als een ander.
1. Ik maak mijzelf meer verwijten dan gewoonlijk.
2. Ik heb sterk de indruk dat ik anderen in moeilijkheden breng.
3. Ik denk voortdurend aan mijn grotere en kleinere tekortkomingen.

17. Toekomstverwachting:

0. Ik heb een optimistische kijk op de toekomst.
1. Ik ben af en toe pessimistisch over mijn toekomst, maar meestal geloof ik dat het wel weer beter zal gaan.
2. Ik ben er vrij zeker van dat mijn nabije toekomst (1-2 maanden) niet veel goeds te bieden heeft.
3. Ik heb geen hoop dat mij in de toekomst iets goeds zal overkomen.

18. Gedachten aan dood en zelfmoord:

0. Ik denk niet aan zelfmoord of aan de dood.
1. Ik heb het gevoel dat mijn leven leeg is en vraag me af of het nog de moeite waard is.
2. Ik denk enkele malen per week wel even aan zelfmoord of aan de dood.
3. Ik denk een aantal keren per dag serieus na over zelfmoord of de dood, óf ik heb zelfmoordplannen gemaakt, óf ik heb al een poging gedaan om mijn leven te beëindigen.

19. Algemene interesse:

0. Geen verandering van mijn normale interesse in andere mensen en activiteiten.
1. Ik merk dat ik minder geïnteresseerd ben in anderen en in activiteiten.
2. Ik heb alleen nog interesse in één of twee dingen die ik voorheen deed.
3. Ik heb vrijwel geen interesse meer in dingen die ik voorheen deed.

20. Energie:

0. Geen verandering in mijn gebruikelijke energie.
1. Ik word sneller moe dan gewoonlijk.
2. Ik heb grote moeite met het beginnen aan of volhouden van gebruikelijke dagelijkse activiteiten (bijvoorbeeld boodschappen doen, huiswerk, koken, of naar het werk gaan).
3. Ik ben niet in staat om mijn normale dagelijkse activiteiten uit te voeren vanwege een gebrek aan energie.

21. Plezier en genieten (seksuele leven buiten beschouwing laten):

0. Ik geniet net zoveel van aangename bezigheden als gewoonlijk.
1. Ik heb minder plezier in aangename bezigheden dan gewoonlijk.
2. Ik heb nauwelijks plezier bij welke activiteit dan ook.
3. Ik kan nergens meer van genieten.

22. Belangstelling voor seks (scoor belangstelling en niet activiteit):

0. Ik heb evenveel belangstelling voor seks als gewoonlijk.
1. Mijn belangstelling voor seks is wat minder dan gewoonlijk, of ik beleef niet meer hetzelfde plezier aan seks als vroeger.
2. Ik heb weinig behoefte aan seks of beleef er zelden plezier aan.
3. Ik heb absoluut geen interesse in seks of beleef er geen plezier aan.

23. Gevoel van traagheid:

0. Ik denk, spreek en beweeg in mijn normale tempo.
1. Mijn denken is vertraagd en mijn stem klinkt vlak en saai.
2. Ik heb enkele seconden nodig om te antwoorden op vragen, en mijn denken is zeker vertraagd.

3. Het kost me zeker veel moeite om te reageren op vragen.

24. Rusteloos gevoel:

0. Ik voel mij niet rusteloos.
1. Ik ben vaak zenuwachtig, ik wring met mijn handen en ik kan niet rustig op een stoel zitten.
2. Ik heb de neiging te bewegen en ben nogal rusteloos.
3. Ik kan vaak niet stilzitten en loop dan te ijsberen.

25. Pijnklachten:

0. Ik heb geen zwaar gevoel in mijn armen of benen en geen andere pijnklachten.
1. Soms heb ik hoofd-, buik-, rug- of gewrichtspijn, maar deze pijnen zijn af en toe aanwezig en belemmeren mij niet dingen te doen.
2. Bovenstaande pijnen heb ik vaak.
3. Deze pijnen zijn zo erg dat ik moet stoppen met mijn bezigheden.

26. Andere lichamelijke klachten:

0. Ik heb geen last van versnelde of onregelmatige hartslag, wazig zien, zweten, warme en koude golven, oorsuizingen, pijn in de borst of beven.
1. Ik heb enkele van deze klachten maar ze zijn licht en slechts af en toe aanwezig.
2. Ik heb meerdere van deze klachten en heb daar behoorlijk last van.
3. Deze klachten zijn zo erg dat ik moet stoppen met mijn bezigheden.

27. Paniek/fobische klachten:

0. Ik heb geen paniekaanvallen of specifieke angsten (fobieën) zoals voor dieren of hoogtevrees.
1. Ik heb lichte paniekaanvallen of angsten die gewoonlijk mijn gedrag niet veranderen en mij niet verhinderen te functioneren.
2. Ik heb duidelijke paniekaanvallen of angsten waardoor mijn gedrag moet aanpassen, hoewel ik kan blijven functioneren.

3. Ik heb tenminste één keer per week paniekaanvallen of ernstige angsten waardoor ik mijn dagelijkse activiteiten moet onderbreken.

28. Verstopping/diarree:

0. Er is geen verandering in de normale stoelgang.
1. Ik heb af en toe last van lichte verstopping of diarree.
2. Ik heb vaak last van verstopping of diarree zonder dat dit mijn dagelijks functioneren beïnvloedt.
3. Ik heb last van verstopping of diarree waarvoor ik medicatie neem of waardoor mijn dagelijkse activiteiten worden beïnvloed.

29. Gevoeligheid:

0. Ik voel mij niet snel afgewezen, gekleineerd, bekritiseerd of gekwetst door anderen.
1. Ik voel mij soms afgewezen, gekleineerd, bekritiseerd en gekwetst door anderen.
2. Ik voel mij vaak afgewezen, gekleineerd, bekritiseerd en gekwetst door anderen, maar dit heeft slechts weinig invloed op mijn relaties of werk.

3. Ik voel mij vaak afgewezen, gekleineerd, bekritiseerd en gekwetst door anderen en deze gevoelens verstoren mijn relaties en werk.

30. Zwaar gevoel/lichamelijk energie:

0. Ik ervaar geen zwaar gevoel in mijn lichaam en geen verminderde lichamelijke energie.
1. Ik ervaar af en toe een zwaar gevoel in mijn lichaam en het ontbreken van energie, maar zonder negatieve invloed op werk, school of op mijn activiteiten.
2. Meer dan de helft van de tijd heb ik een zwaar gevoel in mijn lichaam (ontbreken van lichamelijke energie).
3. Ik voel mij een aantal uren per dag, een aantal dagen per week zwaar in mijn lichaam (ontbreken van lichamelijke energie).

Totaal score:

Dank u voor uw medewerking !

Appendix 3 – Dyadic Adjustment Scale (DAS14)

De meeste mensen hebben wel onenigheid in hun relatie. Wilt u voor de onderstaande onderwerpen aangeven in hoeverre u en uw partner het over deze onderwerpen eens of oneens zijn?

		Altijd oneens	Meestal oneens	Soms oneens	Soms eens	Meestal eens	Altijd eens
1	Geloofskwesties	☐	☐	☐	☐	☐	☐
2	Tonen van liefde	☐	☐	☐	☐	☐	☐
3	Seksualiteit	☐	☐	☐	☐	☐	☐
4	Omgangsnormen (‘Hoe het hoort’)	☐	☐	☐	☐	☐	☐
5	Grote beslissingen	☐	☐	☐	☐	☐	☐
6	Carrièrebeslissingen	☐	☐	☐	☐	☐	☐

		Nooit	Zelden	Soms	Vaker wel dan niet	Vaak	Altijd
7	Hoe vaak zegt u tegen uw partner dat u de relatie wilt beëindigen of denkt u daarover na?	☐	☐	☐	☐	☐	☐
8	Hoe vaak ruziet u ergens over?	☐	☐	☐	☐	☐	☐
9	Heeft u er ooit spijt van dat u een relatie bent aangegaan met uw partner?	☐	☐	☐	☐	☐	☐
10	Hoe vaak werken u en uw partner elkaar op de zenuwen?	☐	☐	☐	☐	☐	☐

		Geen	Enkele	Sommige	De meeste	Allemaal
11	Hoeveel worden bezigheden buitenshuis door u en uw partner gezamenlijk ondernomen?	☐	☐	☐	☐	☐

Als u en uw partner samen zijn, hoe vaak …

		Nooit	Minder dan 1	1 of 2 keer	1 t/m 3 keer	4 tot en met	Vaker

			keer per maand	per maand	per week	7 keer per week	
12	… heeft u een interessante gedachten-wisseling	☐	☐	☐	☐	☐	☐
13	… voert u een rustige discussie?	☐	☐	☐	☐	☐	☐
14	… werkt u samen ergens aan?	☐	☐	☐	☐	☐	☐

Appendix 4 – Responses to Positive Affect Questionnaire (RPA-NL)

Mensen denken en doen heel wat verschillende dingen wanneer ze zich blij voelen. Gelieve elk van de onderstaande uitspraken te lezen en aan te geven of je bijna nooit, soms, vaak, of bijna altijd datgene denkt of doet wat in elke uitspraak staat beschreven, **wanneer je je blij, gelukkig, opgewonden, of enthousiast voelt.** Gelieve aan te geven wat je dan doorgaans doet, niet wat je denkt dat je zou moeten doen.

		Bijna nooit	**Soms**	**Vaak**	**Bijna altijd**
1	Wanneer je je blij/gelukkig voelt, hoe vaak merk je dan op hoe je je vol energie voelt?	☐	☐	☐	☐
2	Wanneer je je blij/gelukkig voelt, hoe vaak geniet je dan van dat moment?	☐	☐	☐	☐
3	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Ik krijg alles wat ik wil bereiken voor mekaar”?	☐	☐	☐	☐
4	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan hoe je het gevoel hebt alles aan te kunnen?	☐	☐	☐	☐
5	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Ik leef helemaal naar mijn kunnen en mogelijkheden”?	☐	☐	☐	☐
6	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Dit is te mooi om waar te zijn”?	☐	☐	☐	☐
7	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan hoe blij en gelukkig je je voelt?	☐	☐	☐	☐
8	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan hoe sterk je je voelt?	☐	☐	☐	☐
9	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan dingen die verkeerd zouden kunnen gaan?	☐	☐	☐	☐
10	Wanneer je je blij/gelukkig voelt, hoe vaak herinner je jezelf er dan aan dat deze gevoelens niet zullen blijven duren?	☐	☐	☐	☐
11	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Mensen zullen denken dat ik aan het opscheppen ben”?	☐	☐	☐	☐
12	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan hoe moeilijk het is je te concentreren?	☐	☐	☐	☐
13	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Ik slaag erin alles te bereiken”?	☐	☐	☐	☐
14	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Ik verdien dit niet”?	☐	☐	☐	☐
15	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan “Ik heb nu gewoon geluk gehad, en dat moment van geluk zal wel snel voorbij zijn”?	☐	☐	☐	☐

16	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan hoe trots je bent op jezelf?	☐	☐	☐	☐
17	Wanneer je je blij/gelukkig voelt, hoe vaak denk je dan aan dingen die niet goed zijn gegaan voor jou?	☐	☐	☐	☐
		Bijna nooit	**Soms**	**Vaak**	**Bijna altijd**