Promoting Well-Being Through Compliments and Positive Writing

An Experimental Study

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Abstract

This study attempted to use compliments in order to create a new positive psychology intervention that improves well-being. Therefore, the research question of this paper focuses on finding differences on well-being scores between three conditions. Two online interventions, best possible self (BPS) and a compliment intervention, were compared with each other and a waitlist control condition. It was expected that the BPS and compliment condition would prove superior to the control condition, but not differ from each other. In total, 18 participants were randomly allocated over the three conditions. Participants were 13 women and 5 men. The mean age was 23.94 (SD = .46), with an age range of 18 to 35 years. Participants were measured on their well-being at both pre- and post-test through the Mental Health Continuum-Short Form. This study found that, on average, participants in the intervention groups scored higher on well-being on the post-test than participants in the control condition. Furthermore, improvement in well-being did not differ between interventions. Several limitations of the current study and recommendations for future research are discussed.

Keywords: Compliments · Best possible self · Positive psychology intervention · Well-being

Introduction

There are many things in life which can help to make one feel better about themselves and life in general. In this thesis the effects of compliments and positive writing on well-being will be established. Traditionally, psychology has put its focus on the treatment of psychopathology and has thus developed many treatments to combat psychopathology. However, as the World Health Organization (WHO) states, health is: "(…) a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (Herman, Saxena, Moodie, & World Health Organization, 2005, p. 5). This is where the field of positive psychology can contribute. Positive psychology is the study wherein conditions and processes contribute to optimal functioning (flourishing) of people, groups and institutions (Gable & Haidt, 2005). Slade (2010) argues that the advances made in establishing validated interventions for treating mental disorders have not yet been paralleled in the science of applying well-being within health services. Furthermore, Slade provides a compelling argument for the use of positive psychology to promote well-being, namely that the focus on a good life is relevant to both people with and without a mental disorder.

Compliments are small acts of speech that are considered as social lubricants (Holmes, 1988) which often serve to create and maintain relationships (Miles, 1994). Furthermore, compliments serve to strengthen relationships among friends and family members (Shaari & Maros, 2017). However, the act of giving compliments is not just limited to those people whom one would like to improve relationships with. For example, one could compliment a stranger's outfit. This means that the sole reason for giving compliments is to make someone feel good about themselves, which is in line with Holmes' classification of compliments as a positive politeness strategy (Shaari & Manos, 2017). Although it is plausible to say that compliments will improve the receiver's mood, it is not as easy to state the same for the giver of compliments.

The term 'flourishing' is used as a descriptor of positive mental health and as a state wherein people can experience positive emotion, positive psychological functioning and positive social functioning (Norriss, 2010). As such, being in a state of flourishing is described as being in optimal mental health. According to Martin Seligman (2011), a pioneer in positive psychology, flourishing is the gold standard for measuring well-being (as mentioned in Dodge, Daly, Huyton, & Sanders, 2012). Furthermore, people that flourish are less likely to miss days of

work and have the healthiest psychosocial functioning (Keyes, 2005). However, the same research has shown that less than 20% of the US population is currently flourishing, indicating that there is a definite need for methods that improve well-being (Keyes, 2005).

What is well-being? This is a problematic question that has been answered many times by several researchers. The problem lies in the fact that many previous definitions of well-being are descriptions of its constructs rather than a clear definition (Dodge et al., 2012). This has led to vague definitions of well-being or definitions that are too specific. Dodge et al. (2012) have performed a multidisciplinary search for an operational definition of well-being. This definition combines three crucial areas of well-being: the idea of a set point for well-being, the inevitability of equilibrium, and the fluctuating state between challenges and resources. By combining these three key areas the definition of well-being is made simple, universally applicable, and optimistic. They have come up with the following definition:

> "In essence, stable wellbeing is when individuals have the psychological, social, and physical resources they need to meet a particular psychological, social and/or physical challenge. When individuals have more challenges than resources, the see-saw dips, along with their wellbeing, and vice-versa" (p. 230).

Given this definition, well-being should improve when accessibility to resources is increased. As such, providing participants with a way to bolster their resources, for example through positive psychology interventions, could prove to increase well-being and thereby create flourishing individuals. This study attempts to provide participants with both new and proven positive psychology interventions to develop psychological/social resources for well-being, thereby keeping in line with the above-mentioned definition. Based on previous research, it is expected that giving compliments and writing about the best possible self will improve the resources necessary for well-being.

Compliments are both easy to give and receive and are known to be a method of oiling the social wheels (Holmes, 1988). As such, compliments have received widespread attention by various researchers. Research on compliments includes their content, values, functions and forms, the variety and constraints on compliment responses, as well as the distribution and frequency of compliments differing between social status and gender (Miles, 1994). An example is the research of the use of compliments in committed relationships (Doohan & Manusov,

2004). Compliments are part of a social skills training given to children with Asperger's syndrome or high-functioning autism (Rao, Beidel, & Murray, 2008). The development of these skills in childhood provides many benefits. These benefits include improved mental health, educational achievement, and peer acceptance, which may positively influence well-being. Furthermore, Campbell, Elder, Gallagher, Simon and Taylor (1999) have found that compliments can be a useful tool in solution-focused brief therapy, although they provided more elaborate compliments in a therapeutic environment. Therefore, when the operational definition of well-being is considered, compliments are indirectly a psychological and/or social resource that is useful in facing social and/or psychological challenges. Compliments are considered an indirect resource, because they do not provide the resources themselves but allow for improved relationships instead; which are considered resources beneficial to well-being. This would mean that compliments are beneficial to overall well-being. However, there is very little to no research on using compliments as an intervention for well-being. This is because studies that research close relationships prefer studying negative interactions (criticism or infidelity) and responses to misfortune (social support), rather than positive relationship behavior such as compliments or displays of affection (Gable & Haidt, 2005).

Manes and Wolfson (1981, as referred to in Doohan & Manusov, 2004) have found that compliments tend to be unoriginal and remarkably formulaic. This works to their benefit as it means that they are easy to construct and the act of giving compliments should be able to be taught with relative ease. In two-thirds of the compliments in their study one of five adjectives (nice, good, beautiful, pretty and great) were mentioned. Moreover, the two verbs 'like' and 'love' appeared in 90% of the compliments which included a positive verb, and half of the compliments followed the same syntactic pattern: [Noun Phrase] (is or looks) [intensifier] [adjective] (e.g. "Your hair looks really nice"). This finding has been replicated in a different study by Holmes (1986). Furthermore, it has been found that compliments can be classified into four different categories, these are as follows: performance, appearance, personality, and possessions (Knapp, Hopper, & Bell, 1984). Compliments given about one's personality are considered most meaningful. These studies allow for a generalizable method of giving

compliments. If the act of giving compliments is shown to be effective, this may provide an easy way to promote well-being in individuals.

Compliments are not (yet) used as an intervention in positive psychology, therefore an established intervention is required to compare the efficacy of the new treatment with. Two separate meta-analyses have found positive effects from positive psychology interventions on positive affect and ameliorating depression (Sin & Lyubomirsky, 2009; Bolier, Haverman, Westerhof, Riper, Smit, & Bohlmeijer, 2013). One of the interventions mentioned in these meta-analyses is positive writing, specifically writing about the best possible self (BPS). In the BPS intervention, people must write about one of the four specific life domains (academic, social, career or health). Research has shown that disclosive writing provides several benefits for well-being, emotional adjustment as well as health (Sheldon & Lyubomirsky, 2006). Positive writing is associated with feeling less upset, happier and getting sick less often (King, 2001). Indeed, these results coincide with research done on flourishing individuals. Furthermore, findings show that BPS is effective even when the intervention is done online, which eliminates the need for time consuming and/or expensive treatment (Layous, Nelson, & Lyubomirsky, 2012). The finding that BPS is applicable online as well as the meta-analyses showing low drop-out rates for BPS interventions provide more than enough reason to make BPS interventions the baseline to which to compare the compliment intervention to.

When all previously discussed findings are put together, they provide compelling evidence for the need to have validated interventions to improve well-being, and positive psychology can be an asset in this regard. Therefore, the purpose of this study is to explore whether giving compliments can result in improved well-being. Furthermore, giving compliments will be compared with a positive writing exercise to establish how well it holds up against a validated positive psychology intervention.

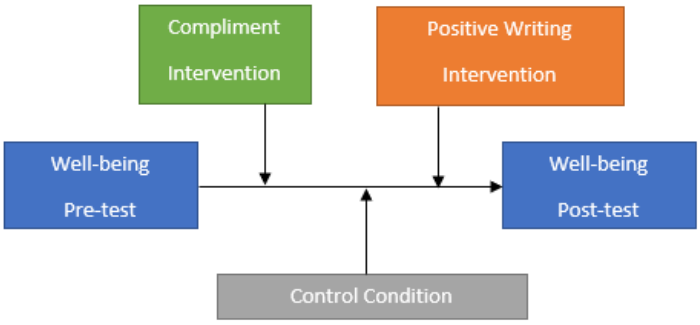

Figure 1. A conceptual model.

Finally, giving compliments will be compared with a control condition. The conceptual model is shown in Figure 1. This thesis aims to answer the question:

What are the differences between the average number of well-being scores on the BPS condition, the compliment condition and the control condition?

It is hypothesized that:

H_1: The well-being scores in the compliment and BPS interventions will have a significantly greater value than the control condition. Therefore, H_{0a} states that both interventions will not show an improvement over the control condition.

H_2: The level of well-being in the compliment intervention will not differ from the BPS intervention. Therefore, H_{0b} poses that the compliment intervention differs (in either direction) in the level of well-being from the BPS intervention.

Method

Design

Participants were randomly assigned to one of two experimental conditions or a control condition. Accordingly, this study used an experimental 3 (best possible self vs. compliments vs. control) × 2 (pre-test vs. post-test) mixed design. The study was conducted online, and participants were required to participate for 7 days.

Participants

For this thesis, 90 participants registered for the experiment. They were recruited with the help of two other researchers through flyers posted at the Utrecht University facilities, on Utrecht University's Sona Systems, on social media, and through the services of Findparticipants.com. Of these participants, 50 were divided over the BPS, compliments and control condition, whereas the remaining 40 were divided in two other conditions not relevant to this thesis. The number of participants that completed the pre-test was 33 and the number of participants that completed the post-test was 22. An error allowed for one participant to be sent a post-test but not a pre-test. This participant was removed. Furthermore, two participants were removed from the analysis due to extreme scores, and one participant was removed due to not participating in the experiment. Thus, the final group of participants consisted of 18 young adults (13 women, 5 men, M_{age} = 23.94 years, SD_{age} = .46, age range: 18-35 years). The convenience sample was

comprised of mainly Dutch (33%) ethnicities. Other nationalities included: American (11%), British (11%), Canadian (11%), German (11%), Indian (11%), Irish (6%) and Spanish (6%). Their level of education is provided in Table 1. Participants were required to be no younger than 18 years old and no older than 35, be semi-fluent in the English language, have access to the internet and an e-mail account. In exchange for their full participation, participants from Utrecht University could earn two study credit hours. Participants recruited through Findparticipants.com were rewarded throughout the service itself. In addition, all participants that completed the experiment were eligible for one of two €20 rewards. Participants were asked to refrain from the experiment if they held diaries or were otherwise engaged in a concurrent psychological intervention, however this was not questioned. Finally, participants were excluded from analysis if they indicated participating 1 day or less. No other exclusion criteria were applied. See Figure 2 for an overview.

Table 1.

Frequencies and Percentages of Education Levels.

	FREQUENCY	**PERCENT**
HIGH SCHOOL	6	33.3
ASSOCIATE DEGREE	1	5.6
BACHELOR'S DEGREE	8	44.4
MASTER'S DEGREE	3	16.7
TOTAL	18	100

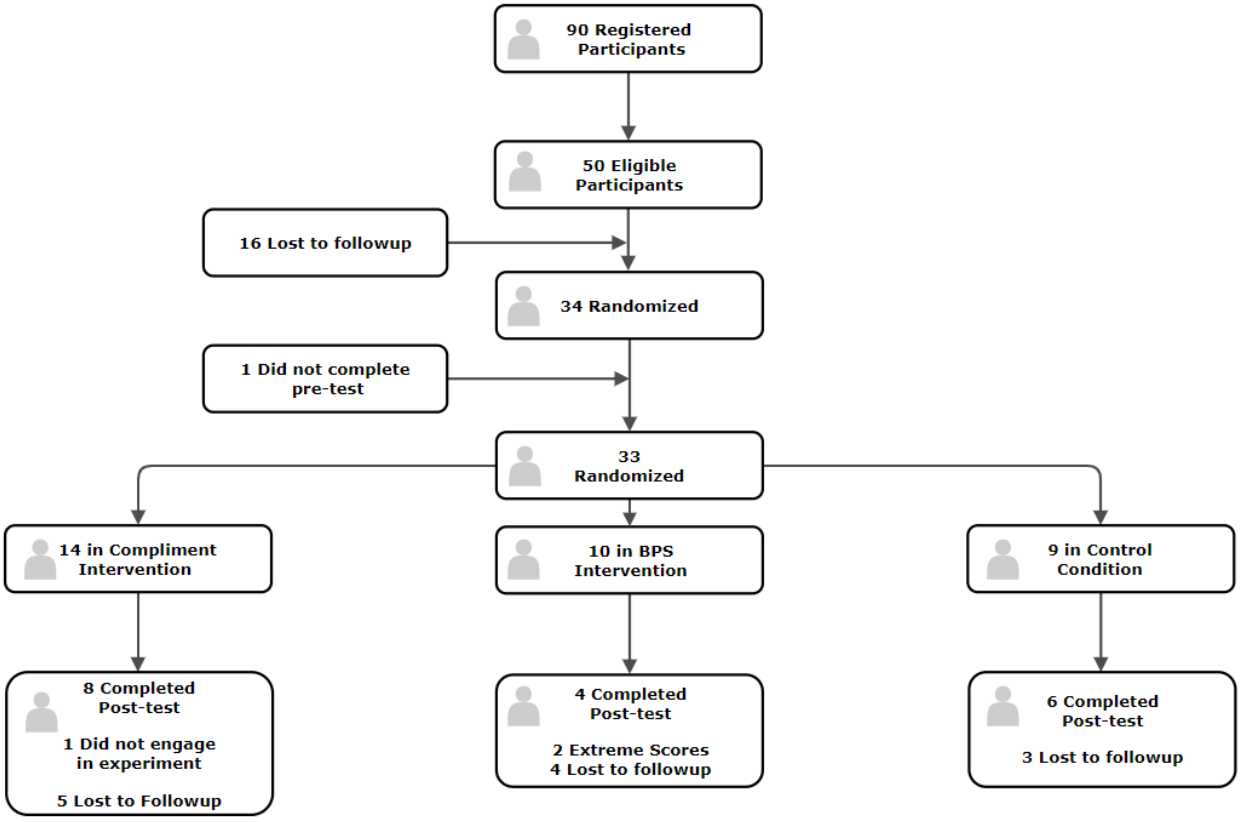

Figure 2. Chart of participant division over conditions.

Instruments

Mental Health Continuum-Short Form. To measure the change in well-being the Mental Health Continuum-Short Form (MHC-SF) was used. The MHC-SF is a questionnaire that consists of 14 items. The questionnaire measures well-being on three different dimensions: Emotional well-being (3 items), Psychological well-being (6 items) and Social well-being (5 items). The items were rated on a 6-point Likert scale (0 = never, 5 = every day). The three dimensions complement the operational definition of well-being nicely. The MHC-SF has a high internal reliability ($\alpha = 0.89$), the same is true for the subscales emotional well-being ($\alpha = 0.83$) and psychological well-being ($\alpha = 0.83$), and it is adequate for social well-being ($\alpha = 0.74$) (Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011). Each subscale of the MHC-SF was stable over time and had low correlations with the other subscales (between .10 and .20). Furthermore, the MHC-SF outcomes are sensitive to change (Lamers et al., 2011). The convergent validity of the MHC-SF is considered good, indicating that it is a valid instrument (Lamers et al., 2011). Multiple studies have shown good construct validity for the MHC-SF

(Lamers et al., 2011; Keyes et al., 2008). The internal reliability for the MHC-SF was also calculated in the present study. The internal reliability was too high ($\alpha = .96$), the same was true for the subscale psychological well-being ($\alpha = .93$). The internal reliability is better for the subscales emotional well-being ($\alpha = .89$) and social well-being ($\alpha = .87$). The differences in the Cronbach's alpha from this study compared to previous studies could originate from the low sample size.

Qualtrics questionnaires. Qualtrics is a research platform that was used to disseminate the questionnaires. All participants received the MHC-SF at both the pre- and post-test. At the post-test, this questionnaire also included an open-ended question for feedback, a measure for their exercise frequency (0 – 7 days), and a debriefing (see Appendix J).

Procedure

Protocol. We followed a protocol that was created prior to the experiment. The protocol is explained further in the following sections and a more detailed description can be found in the appendices.

Communication software. Boomerang was used to schedule e-mails, so that e-mails could be sent at specific time intervals. The first e-mail, including a condition specific pre-test, was sent on Sundays at 9:40AM. These were followed by an e-mail at 10:40AM including the instructions for either the BPS or compliment condition. Participants would receive a reminder on the 3rd and 6th day, Tuesday and Friday respectively. Finally, participants received a post-test at 5PM on the 7th day.

Registration and consent. Participants registered for the experiment through measures mentioned above. They would then be subject to a registration form that asked for their age, gender, nationality, level of education, e-mail address and informed consent. Furthermore, participants were requested to not engage in similar studies or diary writing activities for the duration of the experiment.

Randomization. Participants were randomly assigned to one of the three conditions (BPS, compliment and control) using Research Randomizer (Urbaniak & Plous, 2013). Blocked design was used to maintain an equal sample size in each condition.

Conditions. Following their application participants were subsequently randomized into one of the three conditions: BPS, compliment or control. Participants in the BPS condition were requested to spend no more than 10 minutes a day writing about their life in the future, when all their life goals would have been fulfilled (see Appendix B). This intervention was adapted from King (2001). Participants in the compliments condition were instructed on how to give compliments and were subsequently required to give compliments to other people twice a day. Furthermore, they were required to reflect on their compliments (see Appendix C). This intervention was constructed by the author but is based upon the notion that compliments are used as a social lubricant and therefore might create, maintain or strengthen relationships. The control condition was presented in the form of a waitlist condition. Participants in this condition only completed a pre-test and a post-test, with no intervention.

Pre-test. Registered participants were e-mailed on the first day with a Qualtrics link to their condition specific pre-test. One hour later, participants would be e-mailed their condition specific instructions (see Appendices C and D). Those in the control condition did not receive instructions of any kind.

Midweek and post-test. To reduce attrition, experiment reminders were sent out on the third and sixth day (see Appendices E, F, G and H). There was a specific reason for two reminders as this was found to be marginally more effective and less cumbersome than more (five) reminders (Crawford, Couper, & Lamias, 2001). These reminders included quotes to further reduce attrition. Those in the compliment condition received quotes related to compliments, such as "I can live for two months on a good compliment." The quotes in the BPS condition were unrelated to their condition. Furthermore, those in the compliment condition received an additional questionnaire accompanying their reminder. This questionnaire had open-ended questions regarding the content of their compliments (see Appendix I) during the experiment. This questionnaire was created by the author of this paper and was based on the taxonomy created by Knapp, Hopper and Bell (1984). On the 7th day of the experiment, participants were e-mailed with a link to the post-test questionnaire.

Statistical Analyses

The program G*Power was used to perform an a priori power analysis (Faul, Erdfelder, Lang, & Buchner, 2007). This power analysis determined that the necessary sample size for a one-way

ANOVA with 80% power was 200 participants. Statistical Packages for Social Sciences (SPSS, *version 25*) was used to analyze the data. A mixed analysis of variance has been run to test whether well-being of participants in the experimental conditions differed significantly from those in the control condition over time. Moreover, a one-way ANOVA has been used to test whether the change scores differed significantly between conditions. These change scores were calculated by subtracting the pre-test well-being scores from post-test well-being scores.

Results

Descriptive Analyses

An independent samples t-test was performed on the pre-test scores in order to see whether those who dropped out differed in preliminary well-being from those who remained for the entire experiment. On average, participants that dropped out of the study had lower scores of well-being (M = 38.42, SE = 5.62), than those who completed the study (M = 43.89, SE = 3.89). This difference, -5.47, 95% CI [-19.01, 8.06], was not significant, $t(28) = -.83$, $p = .415$.

Main Analyses

It was hypothesized that both the compliment intervention and the BPS intervention will show a greater positive increase in well-being scores than the control condition (H_1), and that the level of well-being in the compliment intervention will not differ from the BPS intervention (H_2). To this end, a one-way analysis of variance was used. In this analysis of variance, the condition was the independent variable and the change score (pre-test subtracted from the post-test) was the dependent variable.

Inspection of kurtosis, skewness and Shapiro-Wilk statistics indicated that the assumption of normality was supported for each of the three conditions. Levene's statistic was non-significant, $F(2, 15) = 1.89$, $p = .186$. There was no significant effect of an intervention (BPS, compliment) on scores of well-being, $F(2, 15) = 3.21$, $p = .069$, $\omega = .44$, indicating that although there was a large effect size, the change scores of the participants in the control condition (M = .33, SD = 4.08) did not significantly differ in well-being from those in the compliment intervention (M = 7.5, SD = 7.48) or BPS intervention (M = 7.5, SD = 1.29). However, due to the specific criteria set by the hypotheses, the results of the one-way ANOVA can be disregarded, and the results of the planned contrasts can be used. This revealed that either intervention significantly differed in well-being scores compared to the control group, $t(15) = 2.48$, $p = .025$,

r = .54, although the means between the BPS intervention and compliment intervention did not differ significantly, $t(15) = .00$, $p = 1$, $r = .00$.

Additional Analysis

The results provided by the one-way ANOVA were interesting, therefore an additional analysis has been done on the subscales using a multivariate analysis of variance to discern whether changes in scores on the subscales of well-being (emotional, social and psychological) varied per condition. In this MANOVA, the condition was the independent variable and change scores on the three subscales of well-being (emotional, social and psychological) were the dependent variables. Using Pillai's trace, there was a non-significant difference between the conditions when considered jointly on the variables emotional, social and psychological well-being, $V = .52$, $F(6, 28) = 1.64$, $p = .173$. A separate ANOVA was conducted for each dependent variable. There was a significant difference between the conditions on psychological well-being, $F(2, 15) = 4.00$, $p = .041$, partial $\eta^2 = .35$, with those in the BPS condition ($M = 4.75$) scoring higher than those in the compliments ($M = 2.75$) and control ($M = -.33$) conditions. There was no significant difference between the conditions on emotional well-being, $F(2,15) = .61$, $p = .557$, and social well-being, $F(2, 15) = 2.31$, $p = .134$.

Furthermore, participants in the intervention conditions were asked at the end of the study to answer the number of days they had engaged in the experiment. The results are shown in Table 2. An independent samples t-test was performed on days participated to compare whether participation was similar between participants in the intervention groups. On average, those in the BPS intervention participated less days ($M = 4.75$, $SE = 1.32$) than those who were assigned to the compliment intervention ($M = 6.38$, $SE = .26$). This difference, -1.63, 95% CI [-3.77, .52], was significant, $t(10) = -1.69$, $p < .001$. Moreover, it represented a medium-sized effect, $d = .62$.

Table 2

Mean and Standard Deviation on Number of Days Participated in BPS and Compliment Interventions

Intervention	*M*	*SD*
BPS	4.75	2.63
Compliment	6.38	.74
Total	5.83	1.70

Discussion

Conclusion

The goal of this research was to establish a new positive psychology intervention through the use of compliments. To this end, a proven positive psychology intervention, namely BPS, has been used for comparison. A control condition has been used as a baseline. Descriptive analyses showed that no differences existed on pre-test scores between those who dropped out and those who remained in the study, indicating that participants who dropped out did not have significantly lower scores of well-being. It was expected that compliments and BPS interventions would improve levels of well-being substantially more than a control condition (H_1). Based upon the results from the planned contrasts this hypothesis is confirmed. Furthermore, it was expected that the level of well-being of participants in the compliment intervention would not differ from those in the BPS intervention (H_2). The planned contrasts revealed that this hypothesis is accepted; there was no difference in improvement in level of well-being, regarding the two interventions. Therefore, it can be concluded that there were no differences in the average number of well-being scores on the BPS and compliment intervention. However, well-being scores in both interventions were decidedly higher than in the control condition. Exploratory analyses affirm that participants in the BPS intervention scored higher than the other two groups on psychological well-being. There were no differences found between conditions on both emotional and social well-being. Furthermore, it was shown that participants in the BPS condition participated for significantly fewer days than those in the compliment condition.

The effect sizes found by the planned contrasts are similar to one of the studies reviewed by Sin and Lyubomirsky (2009), but larger than others that were mentioned in the same meta-analysis. The second planned contrast revealed that both interventions did not significantly differ

from each other, giving an exact p-value of 1. A composite of the interventions' mean values is significantly higher than the values of the control condition. Therefore, it can be stated that either intervention is significantly more effective than the control condition. It should be noted, that a p-value of 1 is highly unlikely and is to be attributed to the low sample size in all conditions. Consequently, it seems that the evidence provided for both hypotheses is spurious. Yet, the data provided by this study proves both expectations to be true. Moreover, these findings, especially in the BPS intervention, are corroborated by previous studies, including a meta-analysis (King, 2001; Layous, Nelson, & Lyubomirsky, 2012; Sheldon & Lyubomirsky, 2006; Sin & Lyubomirsky, 2009). These studies have all found an effect on well-being through the use of BPS, although application of BPS and measuring of well-being might differ across studies.

Limitations

This study accepted the results of the planned comparisons despite a nonsignificant overall ANOVA. Therefore, there was an increased chance for a Type 1 error (Seltman, 2015). In addition, this study did not manage to gather the necessary number of participants. As such, the study was underpowered and the risk for a Type 2 error is therefore increased (Seltman, 2015). Similarly, reviewing of the Shapiro-Wilk test and standardized Z-scores of kurtosis and skewness showed that the assumption of normality was not violated. However, with four participants in the BPS intervention it is difficult to speak of a normal distribution. More research is needed to provide a definitive answer.

As stated above, with the number of participants gathered, adequate power was still not reached. To add onto this limitation, exactly half of all participants that registered for the study dropped out. The attrition rate in this study is largely incongruous with previous studies reviewed in a meta-analysis on positive psychology interventions (Bolier et al., 2013). This is because attrition rates were either low, omitted, not present or not explicitly mentioned in certain BPS studies, further fueling the prospect of low dropout (Bolier et al., 2013; King, 2001; Layous, Nelson, & Lyubomirsky, 2012; Sheldon & Lyubomirsky, 2006).

As previously mentioned, participants in the BPS intervention participated the least days overall. This could be due to the lower number of participants in the BPS condition. It could also indicate that the compliment intervention was easier to adhere to for the participants. This would imply that the compliment condition is superior to the BPS condition, because participants find

this particular form of intervention easier to maintain and the increases of well-being are similar between both interventions. On the other hand, it could also indicate that less sessions of writing about the best possible self provides a similar improvement when compared to multiple sessions of compliments.

Moreover, this study employed an e-mail address as the identifier for the participants. This had implications for the anonymity of the participants as well as their respective sense of anonymity. As such, it is reasonable to assume that social desirability bias had a larger influence for this study than normal (Grimm, 2010). Yet, the items on the MHC-SF are not considered intrusive or controversial. Thus, social desirability might have played a minor part, despite the issues regarding anonymity. For future research it is recommended that a better method of identifying participants is used.

Additionally, participants in the compliment intervention participated for more days on average than those in the BPS intervention. However, it should be noted that two participants in the compliment intervention did not complete the second manipulation check (see Appendix I). It is therefore unknown whether these two participants saw the experiment to its near completion or merely indicated that they did.[1] This manipulation check required participants to reflect on their emotions and the compliments they had given. The retrospective component of this manipulation check could have implications for existing bias in the content of the answers. Nevertheless, their comments were not analyzed but only used as verification of participation, and therefore is of limited risk to this study. It is possible that the reflection on the experience influenced overall well-being. Therefore, those participants who committed to less days of the intervention might have experienced a lower increase in well-being. Unfortunately, this study was unable to investigate this possibility because of the small sample size. This manipulation check was not available for those in the BPS condition.

Finally, two participants assigned to the compliment condition confided that they did not leave the house for several days, resulting in one participant leaving the study prematurely. This could mean that for those who prefer the comfort of home the compliment intervention could negatively affect participation and potentially produce adverse results. Moreover, it is possible

[1] These participants were identifiable and indicated fulfilling the compliment task 6 days out of 7.

that results were influenced, because of the online character of the study. Namely, it was impossible to enforce study conditions upon participants which reduced control over the participants.

Strengths

This study adhered to a strict protocol. Participants were gathered through methods that were agreed upon from the start. They started the experiment on the same day of the week in order to reduce systematic error. Participants were randomized across conditions and compared against a control condition to prevent spurious causes of effectiveness (Lilienfeld, Ritschel, Lynn, Cautin, & Latzman, 2014).

Future Research

This research has shown that both positive writing and giving compliments can improve levels of well-being. These results are marred by a low sample size, issues of anonymity, and using planned contrasts despite the nonsignificant ANOVA. That said, the similarity of effect between BPS and compliments proves hopeful, considering past research done on the effects of BPS (King, 2001; Layous, Nelson, & Lyubomirsky, 2012; Sheldon & Lyubomirsky, 2006; Sin & Lyubomirsky, 2009). It is recommended that future researchers not only repeat this study with a larger sample size, but also try new methods to reduce attrition. In addition, future researches could explore compliments from a cross-cultural perspective and provide weight to the idea that positive psychology interventions are applicable across cultures (Johnson & Wood, 2017).

If a similar manipulation check is used in future studies, qualitative analysis can be done on the content of compliments and the resulting feelings of participants. Although the initial results are promising, more research is necessary to turn compliments into a fully-fledged positive psychology intervention. If future research corroborates this study's findings, it is recommended that compliment and BPS interventions are used by psychologists to improve well-being of individuals. Additional research done on the effects of receiving compliments could be important as it might indicate improved well-being both for givers and the receivers of the compliments.

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