Can mindfulness and nostalgia raise adolescents’ happiness and subjective well-being?

A quantitative study on the effects of using nostalgia and mindfulness as methods to raise happiness and subjective well-being amongst adolescents.

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Abstract

Worldwide, 450 million people are estimated to have a mental health problem. Therefore this study set out with the aim to fill the gap in research on how to raise happiness and subjective well-being amongst adolescents. The sample of the study consisted of 90 students ranging from 16 - 19 years of age. They were randomly assigned to one of two methods; BPS (Best Personal Self) or nostalgia. Each group was then given varying instructions on a task they would perform on a daily basis, with tests taken on the first and last day of the study. The tests consisted of questions from the PANAS (Positive and Negative Affect Scale) and the SWLS (Satisfaction with Life Scale), which would determine the different methods short- and long-term effect on the participants happiness and subjective well-being. A control group was used to compare the results of the test groups. The results indicated nostalgia as being the most effective way to raise short-term well-being amongst adolescents, which raised interesting questions for future studies.

Keywords: Adolescents, Happiness, Subjective well-being, Positive and Negative Affect Scale (PANAS), Satisfaction with Life Scale (SWLS), Best Personal Self (BPS), Nostalgia, Mindfulness.
Introduction

A large problem in today’s society is the constant struggle that many individuals have with stress, anxiety and depression. It is estimated that approximately 450 million people worldwide have a mental health problem (World Health Organisation, 2001). During 2014 in the United States for instance, anxiety disorders were the most common mental illness amongst the population that was 18 and older, and affected 18% of the population (Anxiety and Depression Association of America, 2014). Despite being a very treatable illness only roughly a third of the afflicted received any treatment. The severity of the problem is enhanced by the monetary cost of anxiety; in the U.S. roughly a third of the country's total mental health bill went towards its cost. Around half of that sum was associated with repeated users of health care services because their true illness was not identified by the doctors (Anxiety and Depression Association of America, 2014). In a study conducted by Rebellon, Brown and Keyes (2001) it was stated that at least one third of the completed suicides every year stem from depression, and that only 56% of the population in the U.S fit the criteria for moderately mentally healthy (Keyes, 2002).

The aim of this study was therefore to see the short-and long-term effects of mindfulness and nostalgia in raising happiness and subjective well-being amongst individuals. During a one week period two different methods were used to test this. Participants in one group performed the Best possible selves (BPS) exercise, which has previously been used in earlier studies (e.g. Sheldon and Lyubomirsky in 2006, adapted from King in 2001). Group two was instructed to use the nostalgia manipulation exercise used by Verplanken (2012), which was inspired by Wildschut, Sedikides, Arndt, & Routledge (2006; Study 6). A control group was also used to raise the validity of the findings. The results were then analysed to determine the effectiveness of the different exercises, and to see if they could be used to aid in raising people's levels of happiness and subjective well-being.
Subjective well-being and happiness

Defining happiness can be tricky since a mental state is very subjective and therefore has different meanings depending on what person is asked the question, “are you happy?”. Lyubomirsky, Sheldon & Schkade (2005) explained it as, “frequent positive affect, high life satisfaction, and infrequent negative affect. These three constructs are the three primary components of well-being. . . It is important to note as well that we use a subjectivist definition of happiness, one that commonly relies on peoples self-reports. We believe this is appropriate and even necessary given our view that happiness must be defined from the perspective of the person. In other words, happiness is primarily a subjective phenomenon for which the final judge should be “whoever lives inside a person’s skin” (Lyubomirsky et al., p.115, 2005).

Research has provided empirical evidence that suggests the impact of happiness on the different psychological states of an individual. It has been proposed that a positive mental health as well as central criterions of adaption stem from the ability to be happy and content with life (Lyubomirsky et al., 2005). Happiness even has evidence showing its multitude of positive byproducts which take shape from happiness and benefit communities, families, and communities (Lyubomirsky et al., 2005).

Subjective well-being was concluded by Proctor, Linley and Maltby (2008) to often be used in psychology as a measurement to talk about “the good life”. Global research has proven that the global populace generally tends to display positive results regarding subjective well-being, even though adolescents report lower results than adults and children (Proctor et al., 2008). It has also been proven that adolescents with a higher subjective well-being run a lower risk for the chance of developing a psychological disorder later in life (Proctor et al., 2008).
Mindfulness
Mindfulness can be described as being able to retain awareness whilst being attentive to what is presently occurring during a certain moment (Brown & Ryan, 2003). “The constructs of awareness and attention are related forms of consciousness whereby attention to particular stimuli is possible due to constant background awareness of the environment and one’s own emotions, thoughts and motives” (Seear, Dianne & Vella-Brodrick, p. 1127, 2012). Several studies support the conclusion of mindfulness leading to increased subjective well-being and decreased anxiety as well as stress (Bränström, Duncan & Moskowitz 2011; Brown & Ryan, 2003). Furthermore it has also been proven how mindfulness training decreases stress and raises subjective well-being (Carmody and Baer, 2008), and with an even higher effect if practiced regularly (Seear & Vella-Broderick, 2012).

The way that mindfulness has been found to assist individuals subjective well-being is that when they are in less mindful states, emotions sometimes spontaneously present themselves without ones knowledge or influence a person’s behavior before they have a chance to acknowledge these feelings (Brown & Ryan, 2003). Whilst being aware of these feelings, an individual can then add clarity, veracity and vividness to their state of mind as to lessen the possible negative bias or overgeneralisations that may be made (Seear & Vella-Broderick, 2012). Discussions have also been had between cognitive theorists about the importance of attention in being able to gather information concerning subjective experiences (Safran & Segal, 1990), as well as behavior in a factual manner, as one of the primary steps in making alterations in behavior with regards to one’s health (Safran & Segal, 1990). In other words, the awareness that develops from mindfulness facilitates an individual’s ability to notice and respond to signals from basic needs, which therefore makes it more probable to revise ones behavior so that these needs then will be fulfilled (Brown & Ryan, 2003).

Nostalgia
Nostalgia is defined as a “sentimental longing or wishful affection for a period in the past” and was coined during the 18th century meaning acute homesickness which is why many associate the word with less positive feelings (The New Oxford Dictionary of English, 2011). First during the late 20th century nostalgia was determined to differ from homesickness, when participants in
a study showed that they regarded the two terms differently. They regarded words such as *warm, old times* and *childhood* to be more relatable to nostalgia than to homesickness (Davis, 1979). Nevertheless this has not always been the case, and different studies have shown how nostalgia can have a positive effect on people, as well as different degrees of positive or negative impact depending to what degree the concerned person has experienced a continuity of identity between the present and the nostalgic memories that they cherish (Verplanken, 2012). Nostalgia has even been described as, “a ‘joyous’ experience that gives rise to ‘a feeling of elation’” (Kaplan, p. 465, 1987, cited in Setikdes et al., 2008).

Wildschut et al. (2006) analysed various narratives provided by both undergraduates and magazine readers to examine the content of their nostalgic experiences. The conclusion was that, “nostalgia is a self-relevant and social emotion: The self almost invariably figured as the protagonist in the narratives and was almost always surrounded by close others. In all, the canvas of nostalgia is rich, reflecting themes of selfhood, sociality, loss, redemption, and ambivalent, yet mostly positive, affectivity” (Sedikides, Wildschut, Arndt, & Routledge, p.305, 2008). In the same study participants were asked to describe at what periods of time they became nostalgic. In the responses the most common trigger was negative effects, and that the individuals then thought of nostalgic experiences whilst they were sad to alleviate their mood in an attempt to feel better (Sedikides et al., 2008).

**Aim and hypothesis**
The aim of this study was to see the short-and long-term effects of mindfulness and nostalgia in raising happiness and subjective well-being amongst individuals. The main concluded hypothesis of the study was that both BPS and nostalgia would raise students’ short term subjective well-being compared to the control group, with nostalgia having a higher affect. As a second hypothesis BPS was also predicted to surpass nostalgia by a significant margin as a long-term aid for raising the participants subjective well-being, and that the effect of nostalgia would lessen dramatically.
Method

Sample
The participants of the study were 90 upper secondary students from the south of Sweden that willingly wanted to participate in the study. The applicants were randomly divided into three different groups, one for mindfulness, one for nostalgia and a separate control group. The ages varied from 16-19, and the test was conducted during the second to last week of the autumn term.

Measures
For the purpose of being able to assess the potential affect of mindfulness and nostalgia on the different groups, the Positive and Negative Affect Schedule (PANAS; Watson, Clark, Tellegen, 1988) was used. The test consisted of 20 items, half of them measuring positive affect (PA) such as excited and enthusiastic, and the other half measuring negative affect (NA) such as distressed, upset. The scale that the participants rated their measurement of affect for those different feelings ranges from 1 - 5 (Sheldon and Lyubomirsky, 2006). The difference between the participants PA and NA scores were then calculated to see what affect they were most affected by.

To measure the participants’ subjective well-being they were instructed to complete Ed Diener’s Satisfaction with Life Scale (SWLS; Pavot and Diener, 1993). The scale functioned by having the participants respond to five questions to measure the level of well-being and satisfaction with their lives on a scale ranging from 1 – 7, with different levels of agreement to the statements. Afterwards the points were summarised to measure how satisfied the participant was with their life with intervals of five points (minimum of 5 points and a maximum of 35 points). A score of 20 points was considered neutral, lower scores indicated a higher satisfaction with life and higher scores indicated a lower satisfaction with life (Pavot and Diener, 1993).

These tests were taken by all of the participants during the first and last day of the study to see how their results might have altered depending on the group they were assigned to.
Instructions
After an explanation to the participants about the purpose of the study, ethical aspects such as their anonymity and how the study would work so that everyone had a complete understanding, the participants were randomly divided into three separate groups. They were then given directions to pre-created online tests, each with a different quantitative survey as well as varying instructions depending what group they had been assigned to.

The mindfulness and nostalgia groups were required to first complete their group specific assignment before moving on to perform a PANAS and SWLS test, whilst the control group did not have any group specific task and instead only completed the PANAS and SWLS tests. The non-control groups were then instructed to keep their exercise in mind during the coming week and to take a look at their notes once a day but without spending too much time on this. After one week the groups completed the same quantitative tests for a second time to see how they might had progressed during the week, with the addition of one question to the non-control groups; “How many times did you truthfully think about your assignment per day?”. This question was added to determine if one group might be more committed than another which could potentially skew the results. The translated versions of instructions that the students received can be found in the appendix at the end of the paper.

Mindfulness: You have been randomly assigned to think about your best possible self now, and during the next few weeks. ‘Think about your best possible self’ means that you imagine yourself in the future, after everything has gone as well as it possibly could. You have worked hard and succeeded at accomplishing all of your life goals. Think of this as the realization of your life dreams, and of your own best potentials. In all of these cases you are identifying the best possible way that things might turn out in your life, in order to help guide your decisions now. You may not have thought about yourself in this way before, but research suggests that doing so can have a strong positive effect on your mood and life satisfaction. So, we’d like to ask you to continue thinking in this way over the next week, following up on the initial writing that you’re about to do.

(Sheldon and Lyubomirsky, 2006)
In addition to the instructions that Sheldon and Lyubomirsky (2006) created, a small additional passage was added providing tips as to how the students could perform their task and also to include the instruction telling them to think in this manner during the coming week.

A tip is to either write down a new copy of your best possible self each day, or read through your old narrative once per day, spending a maximum of fifteen minutes on this task. You can write this down on a piece of paper or on your computer. It is your own text and you do not have to show it to anyone if you do not want to.

**Nostalgia:** I now want you to concentrate on nostalgic memories. According to the Oxford Dictionary, nostalgia is defined as a “sentimental longing for the past”. Specifically, think of a past event that makes you feel most nostalgic. Bring this nostalgic experience to mind. In order to help you to grasp this experience, we want you to take a few minutes, relax, and concentrate on the past event that makes you nostalgic. Imagine yourself again in that situation. Imagine how the place or situation looks like, visual details, sounds, smells. Try to visualize this scene as clearly as possible. Immerse yourself in this nostalgic experience. How does it make you feel? Please write down in your own words what you see and feel. Describe the following details:

1. the place, situation or event that makes you feel nostalgic.
2. things, people, sounds, smells.
3. how it makes you feel being there.

(Verplanken, 2012)
The same additional passage was then added to the instructions Verplanken (2012) had designed for nostalgia and also various small additions to make the two experimental groups instructions as similar to each other as possible.

*You may not have thought about yourself in this way before, but research suggests that doing so can have a strong positive effect on your mood and life satisfaction. So, we’d like to ask you to continue thinking in this way over the next week, following up on the initial writing that you’re about to do. A tip is to either write down a new copy of your nostalgic memory each day, or read through your old narrative once per day, spending a maximum of fifteen minutes on this task. You can write this down on a piece of paper or on your computer. It is your own text and you do not have to show it to anyone if you do not want to.*

**Control group:**
The control group was only instructed to complete the PANAS and SWLS-tests and was not given any other instructions or thoughts to ponder on during the coming week.

**Ethics**
The presented study was conducted inside the ethical standards set out by the American Psychological Association (2010). The goal was to increase scientific and professional knowledge of behavior and people's understanding of themselves and others and to use such knowledge to improve the condition of individuals, organizations and societies. A continuous respect towards civil and human rights and the central importance of freedom of inquiry and expression in research, teaching and publication were taken in high regard. The protection of these rights and the anonymity of the participants in the study were guaranteed, and the constant strive to help the public in developing informed judgments and choices concerning human behavior was maintained (American Psychological Association, 2010).
Results

PANAS
A one-way group ANOVA was conducted on the responses from the first weeks participants which presented a statistically significant difference at the $p < .05$ level between groups from the PANAS-results ($F(2,87) = 3.979, p = .022$). A tukey post-hoc test also revealed that the BPS group ($M = 3.57, SD = 10.54$) and the control group ($M = 8.07, SD = 10.21$) significantly differed from the nostalgia group ($M = 10.67, SD = 8.73$). Comparing the nostalgia groups PANAS results to the BPS there was a $p = .018$ significance ($M$ diff = 7.1) and a $p = .566$ difference ($M$ diff = 2.6) to the control group. Whilst when comparing the BPS group to the control one a $p = .187$ significance ($M$ diff = 4.5) was presented.

Descriptive statistics for week 1 PANAS.

<table>
<thead>
<tr>
<th></th>
<th>Participants</th>
<th>Mean PA</th>
<th>Mean NA</th>
<th>Mean total difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPS</td>
<td>30</td>
<td>26.4</td>
<td>22.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Nostalgia</td>
<td>30</td>
<td>31.3</td>
<td>20.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>31.1</td>
<td>23</td>
<td>8</td>
</tr>
</tbody>
</table>

Figure 1.
SWLS
When analysing the difference between groups SWLS tests it was also conducted with a one-way ANOVA showing significance at the $p < 0.5$ level ($F(2,87) = 40.833, p = .395$). The tukey-post hoc test showed that the nostalgia group ($M = 22.5$, $SD = 6.2$) scored the highest, with the control group ($M = 20.8$, $SD = 7.05$) following and the BPS group ($M = 20.4$, $SD = 6.52$) just below. The results can be seen in figure 3.
The results suggested that nostalgia had a positive effect on short term subjective well-being according to the PANAS-scale whilst the BPS method would have a negative effect. Due to not reaching enough participants that completed the follow-up test during week two the results from that week were disregarded in the results and analysis. The SWLS scores between the groups were very similar and did not present any conclusive indications that one method as more efficient than the others. This meant that the first hypothesis was partially supported since nostalgia had the highest influence on the PANAS scores concerning short-term subjective well-being. Nevertheless the BPS group did not show any positive short term effect on the group and had a lower mean score than the control group. The second hypothesis was disregarded in its entirety since the second week did not have enough participants responding to their questionnaires which meant that long-term effects could not be analysed.
Discussion

The results in the study partially support the first postulated hypothesis that nostalgia would be the most effective way to raise the subjective well-being amongst the participants. The second part of the primary hypothesis was not supported by the results, as the BPS method had a noticeably lower effect on that group than both the nostalgic and control groups. In previous studies it had been found that BPS increased the positive affect of individuals (Sheldon & Lyubomirsky, 2006; King 2001). Despite this in an earlier study BPS did not significantly increase positive affect in comparison to the control group (Seear & Vella-Brodrick, 2012). In the conducted study participants from the BPS had low results ($M = 3.6$), with the control group being twice as high ($M = 8$) and the nostalgia group having an even higher score ($M = 10.7$), as shown in figure 1. Seear & Vella-Broderick (2012) postulated that the difference in their study relative to the previous ones (Sheldon & Lyubomirsky, 2006; King, 2001) could have occurred because their participants had a more diverse sample with a mean participant age of individuals in their mid-thirties whilst the others had been conducted on university students who were much younger. It was therefore theorised that the BPS activity may be better suited for the younger audience at universities where students in all probability had high aspirations towards a professional career (Seear & Vella-Broderick 2012).

The even younger students at upper secondary school that were the targeted audience for this study may in other words not have had a these high aspirations at the time of the test since it was very close to the end of the school term and most of them had a lot of work to finish. To put this into perspective, when visiting the school during the first day 117 students were expected to take the test if the classes had full attendance, yet only 78 completed it, meaning a third of the students did not attend school that day. This hinted that the students may have been overworked at this time. This may even have affected the results in the tests so that the scores might have been different if the study had been done at another time, nevertheless it was equal for all of the participants so it would not have skewed the outcome, and may only be noticed when trying to replicate the study. Another theory from Seear & Vella-Broderick (2012) was that their use of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS, Tennant, Hiller, Fishwick, Platt, Joseph, Weich, 2007) may have been less susceptible to altering over the short time span that
was measured since it was more complex and incorporates both cognitive evaluations elements as well as psychologically functions (Seear & Vella-Broderick 2012).

As previously stated the results indicated a positive effect on using nostalgia as a method to raise subjective well-being amongst individuals. In previous studies it was suggested that nostalgia would serve as a storehouse of positive affects (Wildshut et al., 2006), and it has also been concluded that participants in nostalgic tests reported more positive affect than control groups, without showing more negative effects (Sedikides et al., 2008). The results from the presented study corresponds with these statements, the nostalgia group had both more positive affect (M = 31.4) and a lower negative affect (M = 20.7) than the control groups results for positive (M = 31.1) and lower (M = 23) affect as shown in figure 2.

Analysing the results from the SWLS testing (figure 3) showed that the nostalgia group even here had a higher score than the other groups. It was significant at the $p < 0.5$ level, but the differences between the groups was minimal and, whilst supporting the first hypothesis, the SWLS portion of the study was considered as non-conclusive. The reasoning of this being that as not enough participants responded to the follow-up tests during the second week the SWLS scale would not function to full effect. Therefore this portion of the study was rejected.

**Conclusion**

In conclusion the first hypothesis was partially supported by the study by nostalgia having the most affect in raising students short term subjective well-being, but the BPS method proved to not be more effective than the control group and therefore did not support the hypothesis. The second hypothesis was rejected in its entirety since the participants during week 2 did not reach the minimum participant goal of the study.
Practical implications
From the results in the conducted research there is now more data to support the use of nostalgia as a beneficial method in raising short term subjective well-being amongst adolescents. This can perhaps be used as a motivational tool for students. If they have massive amounts of work and feel that they will not be able to manage the pressure, they could be advised to try and relax whilst thinking of positive nostalgic memories. This could make them feel less stress and anxiety, which would not only raise their subjective well-being, but also aid them in their studies. School counselors could also use this information when speaking to students that feel overwhelmed, depressed had to experience an unpleasant event at school or in their home. The data also shows these methods of being effective on adolescents, a group that it had not been tested on before, and may have the highest need for these exercises since these years in their lives can be very demanding and involve them undergoing the transition to adulthood. Being a simple exercise this may help those who otherwise would not seek professional help for their difficulties in dealing with depression, stress or anxiety, although further studies and testing is required beforehand.

Methodology
Concerning the methodology of the study it is very possible that different results would have been collected if it had not been done on adolescent students in the south of Sweden. It is also worth taking into account that if it had been conducted during a different time period when the students’ semesters had different demands on them alternate conclusions might have been drawn. In earlier research it has been determined that the end of semesters can lead to more stress which is connected to lower satisfaction with life (Wilks & Spivey, 2010). The study also had a large setback in not having enough data from week two, the comparisons between the different groups would have been more extensive with this data as well as having more credibility, and would have been able to see the long-term effects of the different methods. A larger sample data would also have added more credibility to the study.
**Future research**
The tests require further trials as to see if they can be replicated, and it is highly preferable to gain more sample data from other countries if possible to see if the results can be generalised. Tests among adolescents at different periods of their school semester may also yield different results, as well as researching the long-term effect on the participants which is extremely vital. Moreover there have been studies concerning nostalgias effect on individuals who are habitual worriers where the results suggested that dwelling on the past was not beneficial to them, even though memories of a joyous past can take shape (Verplanken, 2012). A method that can be used to mitigate this is by developing mindfulness to be more aware of the moment and therefore also become more accepting of negative feelings that can occur from nostalgic memories, which proved to be beneficial to habitual warriors (Verplanken & Fisher, 2012). Therefore, research needs to be made concerning the long-term effects of these methods; the results may differ over time which would change the practical implications of the study, and may show an important purpose of combining mindfulness and nostalgia together to aid each other.
References


Appendix

Best personal self (BPS):

Nostalgi:


1. Platsen, situationen eller händelsen som gör dig mest nostalgisk.
2. Saker, personer, ljud, lukter.
3. Hur det får dig att må av att vara där.

Du kanske inte har funderat på dig själv på detta sätt förr, men forskning föreslår att genom att göra detta så kan en stark positiv effekt på din sinnesstämma och livstillfredsställelse. Därför ber jag Er, att fortstå att tänka på detta vis den kommande veckan som uppföljning till denna första uppgiften ni ska genomföra. Ett tips är att antingen skriva ner en ny kopia av erat nostalgiska minne varje dag, eller att läsa igenom eran gamla beskrivning en gång per dag, men spendera inte mer än femton minuter på detta.
PANAS:

Detta formulär består av ett antal ord som beskriver olika känslor och emotionella upplevelser. Läs varje påstående och indikera till vilken grad du under senaste veckan känt på det sätt som påståendet anger. Markera ditt svar i utrymmet bredvid påståendet. Använd följande skala när du anger dina svar:

1 = Väldigt lite eller inte alls
2 = Lite
3 = Varken för lite eller för mycket
4 = Ganska mycket
5 = Extremt mycket

Intresserad _____  Irriterad _____
Stressad _____  Alert _____
Exalterad _____  Skamsen _____
Upprörd _____  Inspirerad _____
Stark _____  Nervös _____
Skyldig _____  Bestämd _____
Skrämd _____  Uppmärksam _____
Fientlig _____  Pirrig _____
Aktiv _____  Entusiastisk _____
Stolt _____  Rädd _____
SWLS

Nedan finns fem påståenden du kan hålla med om eller inte hålla med om. För varje påstående markerar du till vilken grad du håller med om det genom att skriva in numret från skalan 1 - 7 som bäst stämmer överens med vad du tycker på linjen framför påståendet. Var öppen och ärlig i dina svar.

1 - Instämmer inte alls
2 - Instämmer inte
3 - Instämmer inte helt
4 - Varken instämmer eller inte
5 - Instämmer på ett ungefär
6 - Instämmer
7 - Instämmer helt

Det mesta i mitt liv är nära mitt ideal. ______
Förutsättningarna för mitt liv är utmärkta. ______
Jag är nöjd med mitt liv. ______
Så här långt har jag fått de saker jag anser viktiga i livet. ______
Om jag kunde leva om mitt liv, skulle jag inte ändra nästan någonting. ______