

WHY STUDIES IN THE EFFECT OF PPIs SHOULD USE LIFE-SATISFACTION AS AN OUTCOME

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ABSTRACT

The effect of positive psychological interventions (PPI) is mostly assessed using self-report measures of positive mental health. These measures are problematic because 1) the content addressed is not too clear, 2) different scale assess different notions of positive mental health, which impedes comparability, 3) the concept of positive mental health involves objective capabilities which are not well measurable using subjective self-estimates and 4) the concept behind the measures denote presumed chances for adaptation to life rather than adaptation as such. Therefore, we should also measure the effect of PPIs using life-satisfaction, which is a) a clear-cut concept and as such tells what the intervention brings about, b) is well measurable using self-reports, since it is a subjective concept, c) allows better comparability across studies and d), indicates actual adaptation to life instead of presumed strengthening of chances for adaptation.

Keywords: positive mental health, positive psychological interventions, outcome measures

It is widely agreed that a stronger evidence base is required to support claims about effectiveness of Positive Psychological Interventions (PPIs). Fortunately, there is a growing stream of effect studies on the results of PPIs on which recent meta-analyses have been performed, e.g., by Bolier et al. (2013), Chakhssi et al. (2018) and White et al. (2019). However, this strand of effect research has met with several problems, which require us to shift our focus from positive mental health (eudaimonic happiness) to life-satisfaction (hedonic happiness) as an outcome variable. What are the problems with using measures of positive mental health to evaluate PPIs? Why should we also use life-satisfaction as an outcome variable of PPIs?

1 Different notions of positive mental health

The first problem is in the notion of positive mental health. This is a fuzzy concept that denotes a syndrome of desirable psychological traits, typically in the eyes of psychologists and educators. The use of the term 'health' instead of the earlier term 'virtue' suggests that these qualities are part of our natural repertoire and not a cultured exception, which suggestion is difficult to maintain as we will see in section 2.

The landmark exploration of this notion by Marie Jahoda (1958) listed the following six elements of positive mental health:

- Positive attitudes toward the self
- Growth, development, and self-actualization, including utilization of abilities, future orientation, concern with work
- Integration, as in a balance of psychic forces, the unifying of one's outlook, and resistance to stress and frustration,

- Autonomy, as in self-determination, independent behavior, and, when appropriate, non-conformity.
- A true perception of reality
- Environmental mastery, meaning adequacy in love, work and play, adaptation and adjustment, and the capacity to solve problems.

Additional strengths as mentioned by Keyes (2005) are:

- Positive relations with others Having warm, satisfying, trusting personal relationships and being capable of empathy and intimacy.
- Purpose in life Holding goals and beliefs that affirm one's sense of direction

From the perspective of self-determination theory Deci & Ryan () the following *motivations* are seen as part of positive mental health

- Autonomy (needing to be self-regulating; to own one's actions and to identify one's self with one's behavior)
- Competence (needing to be effective; to be moving towards greater mastery and skill)
- Relatedness (needing to feel psychological connection with important others; to support, and be supported by, those others).

The Mental Health Foundation rather stresses the following *abilities*:

- Ability to learn
- Ability to feel, express and manage a range of positive and negative emotions
- Ability to form and maintain good relationships with others
- Ability to cope with and manage change and uncertainty

A closer look at the various descriptions of positive mental health by Peterson and Seligman reveals that the notion does not only include multiple mental strengths, but also external conditions that facilitate well-functioning (enablers) as well as results of well-functioning (outcomes).

This difference in the conceptualization of positive mental health mirrors in the measurement. There is not one measure of positive mental health, but different inventories which contain varying sets of psychological strong points. A review of current scales is found with Health Scotland (2007).

One problem with this practice is that much of the effect studies are incomparable. Another problem is that the sum-scores obtained with these inventories do not inform us about what precisely has been strengthened by the intervention. Together this makes it difficult to assess what PPIs really do, such despite the statistical power of some advanced meta-analyses.

This is less of a problem for life-satisfaction. Life-satisfaction is a clear concept: How much you like the life you live (Veenhoven 2019). So, when used as an outcome measure it denotes the degree to which life has become more satisfying. This is not only clearer but is also what users of positive psychological trainings typically want to achieve in the end.

2 Assumed functionality of these traits

Why are these psychological traits seen as 'healthy'? A main reason is in their functionality in the context of contemporary modern society. Though the functionality of a 'true perception of reality'

and 'environmental mastery' is likely to be universal, 'autonomy' and 'positive self-regard' will be more advantageous in modern individualized societies in traditional collectivist societies. Modern multiple-choice society provides many options for leading one's life, among other things in the realm of occupation. Making a choice that fits one's capabilities and preferences requires that one know oneself and that one has the guts to resist pressures towards a less fitting way of life, such as following the footsteps of one's parents in a family business. Autonomy is less functional in a collectivist context, where 'relatedness' will be more important. Taking a historical view, we must realize that bravery and loyalty were more functional for the medieval warrior caste and were as such cultivated by the educators and moral advisors of that time.

Though the strengths considered to mark positive mental health tend to be functional in contemporary modern society, they are not equally functional in all conditions. Benefits of self-determination will depend on the availability of options and the realistic perception of these. Also, more self-determination is not always better; one can be too independent, even in modern individualized society we need the support and corrections of our fellow men. The commonly used 'forgiveness' interventions (e.g., Schuls 2021) helps to illustrate these points: one can doubt that it is helpful for Holocaust survivors to write a forgiveness letter to Adolf Hitler and if a Holocaust survivor get any better of forgiving Adolf Hitler at all, a moderate degree of forgiving is probably better than full forgiveness.

Consequently, the effect of PPIs should not only be measured by the degree to which the trained strengths are strengthening, but also how that works out in adaptation to life. This is where life-satisfaction comes in. Satisfaction with life reflects the degree to which human needs and wants are being met (Veenhoven 2020). As such, life-satisfaction indicates an *actual outcome* in the quality of life rather than a gain in *presumed means* (strengths) for living a good life.

3 Objective mental health is not well measurable using subjective self-estimates

Another problem is in the measurement of positive mental health, which is typically done using self-reports, such as the 'Mental Health Continuum' (DeLara-Machido & Russchel-Bandeira 2015) and the 'Positive Mental Health Scale' (Lucat et al 2016).

Conceptually, positive mental health denotes several objective phenomena, in the above list of Jahoda we see only one subjective element, that is "positive attitudes towards the self". The other five elements of positive mental health are of an objective nature: 'growth', 'integration', 'autonomy', 'true perception of reality' and 'environmental mastery'. These objective phenomena are not well measurable using self-ratings as we know from the case of intelligence, where self-rated brightness appears to be only modestly correlated with tested IQ (Paulhus 1998). The problem is not only in self-serving bias but mainly because we don't know. How can you know that you see reality realistically? This problem was already addressed by Marie Jahoda but is ignored in present day research practice in positive psychology.

This problem does not exist for life-satisfaction, which is a subjective phenomenon that is well measurable using self-reports (veenhoven 2019).

4 Poor measures of life-satisfaction used

Though the focus of current effect studies is on positive mental health, many of them also include measures of life-satisfaction. Commonly used measures are the 'Satisfaction with

Life Scale (SWLS) by Diener et al 1985 and the Subjective Happiness Scale (SHS) by Lyubomirsky & Lepper (1999). Both are multiple item questionnaires of which one of the questions does not fit our definition of happiness.

In the case of the 5-item SWLS that is endorsement to the statement ‘If I could live my life over again, I would change nothing’. Logically, one can be satisfied with life, but still be open for something else. The item is particularly inapt for measuring the effect of happiness training techniques, since users of such techniques typically seek change in their lives.

In the case of the 4-item SHS, the problem is in the statement ‘Compared to other people, I consider myself less happy / more happy’. Logically, one can think one might be happier than other people, but still be unhappy. Practically, we are often badly informed of how happy ‘other’ people are. This item is also particularly inapt in the context of an effect study. We tend to think that we are happier than other people anyway (Klar & Giladi 1999) and participation in a PP training is likely to foster that illusion.

In my view, this lack of substantive face-validity cannot be offset by mathematical ‘tests’ for concurrent validity or construct validity. Gathering research findings on effects of happiness trainings on happiness (Bergsma et al 2020) we had to bypass more half of the research output for this reason.

These seemingly mere technical problems are part of a tradition in psychological measurement that is fitted to the fuzzy concepts which prevail in the discipline. If you cannot define a concept precisely, you can measure it only using approximations, which guestimates are inherently indefinite. This is not required in the case of life-satisfaction, which is a distinct concept and can be measured using a single direct question, such as ‘Taking all together, how satisfied of dissatisfied are you with your life-as-a-whole these days?’

So, when life-satisfaction is used as an outcome variable we better use a measure that precisely fits this concept. This can be assessed on the basis of close reading of questions. Measures that have passed this test for face validity are listed in the Collection of Happiness Measures of the World Database of Happiness (Veenhoven 2021). Their applicability for specific purposes is discussed in Veenhoven (2017).

5 Reservations about life-satisfaction in positive psychology

The prime aim of positive psychologists is to cultivate psychological virtues and as such they see happiness at best as one of these virtues or as a secondary byproduct. In that context a distinction is made between ‘eudaimonic’ happiness (a fancy name for positive mental health) and ‘hedonic happiness (life-satisfaction), where the latter is often denounced as superficial pleasure and associated with hedonism. An example is Seligman’s 9 (2002) statement on the Pleasant Life as “consisting in having as many pleasures as possible and having the skills to amplify the pleasures”

Though pleasure will typically contribute to life-satisfaction, it should not be equated with life-satisfaction. One can indulge in pleasures but still be dissatisfied with one’s life as a whole and one can be satisfied with life without experiencing much pleasures, for instance when satisfaction draws primarily on perceived meaning. The conceptual difference is explained in more detail in Veenhoven (). Likewise, life-satisfaction should not be equated with hedonism. Though pleasure seeking and acceptance of pleasure will typically add to life-satisfaction (Veenhoven 2003), they are not the same.

This is not to say that the use of life-satisfaction as an outcome variable is problem free. The

main goal of positive psychological interventions is not that people *feel* better but that they *do* better in life. Though life-satisfaction is a good indicator of actual adaptation (Veenhoven 2020) it is not a perfect measure. Cognitively one can be satisfied with a poor life because of ignorance or defensive denial and such mis-judgement will be corrected only by affective experience when gratification of basic needs is thwarted. Likewise, we can feel bad most of the time (affective component of life satisfaction) while there is nothing wrong, as is the case with common affective disorders such as depression.

Though imperfect, life-satisfaction is still the best available measure of adaptation to life. It's affective component in particular is both a signal of good adaptation that exists in all choosing organisms and at the same time a facilitator of active adaptation (Fredrickson 2004). Progress in research on the effects of their interventions requires that the qualms about life-satisfaction are overcome.

6. **Conclusions**

Effect studies on Positive Psychological Interventions should use life-satisfaction as an outcome variable because: 1) life-satisfaction is a clear concept, and denotes as such an identifiable effect 2) life-satisfaction is well measurable using self-reports, which is not the case for objective notions of positive mental health and 3) life-satisfaction is well comparable across studies, which is required to get a view on what works for whom. 4) life-satisfaction signals *actual* adaptation to life rather than presumed *chances* for adaptation; it denotes an *end* that users of typically seek than the inner *resources* that may benefit them.

REFERENCES

- Bergsma, A, Buijt, I. & Veenhoven, R. (2020)
Will happiness-trainings make us happier? A research synthesis using an online findings-archive
- In: van Zyl, L. E., Rothmann, S., eds. (2020). Positive Organizational Interventions: Contemporary Theories, Approaches and Applications. Lausanne: Frontiers Media, pp. 177-208
- Bolier, L., Haverman, M., Westerhof, G.J., Riper, H., Smit, F. & Bohlmeijer, E. (2013)
Positive psychology interventions: a meta-analysis of randomized controlled studies
BMC Public Health, 13: 119
- Chakhssi, F., Kraiss, E.T., Sommers-Spijkerman, M. & Bohlmeijer, E.T. (2018)
The effect of positive psychology interventions on well-being and distress in clinical samples with psychiatric or somatic disorders: a systematic review and meta-analysis
BMC Psychiatry, volume 18, Article number: 211
- Deci, E.& Ryan, R. (2002)
Overview of Self-Determination Theory: An Organismic Dialectical Perspective,
Handbook of Self-Determination Research", pp. 3-34, Rochester, USA
- DeLare-Machido, W. & Ruschel-Bandeira, D. (2015)
Positive Mental Health Scale: Validation of the Mental Health Continuum – Short Form
Psico-USF, Bragança Paulista, v. 20, n. 2, p. 259-274
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985)
The Satisfaction with Life Scale
Journal of Personality Assessment, 49, 71-75
- Fredrickson, B.L. (2004)
The Broaden - and - Build Theory of Positive Emotions.
Philosophical Transactions, Biological Sciences, 359, 1367 – 137
- Health Scotland (2007)
Review of scales of positive mental health validated for use with adults in the UK: Technical report
<http://www.healthscotland.scot/media/2244/review-of-scales-of-positive-mental-health-validated-for-use-with-adults-in-the-uk.pdf>
- Jahoda, M. (1958)
Current concepts of positive mental health
Basic Books, NY, USA
- Klar, Y. & Giladi, E.R. (1999)
Are Most People Happier than their Peers, or Are They Just Happy?
Personality and Social Psychology Bulletin, 25 (5) 586-595
- Lukat, J. Mangraf, J., Lutz, R. VanderVeld. W.M. & Becker, E.M. (2016)
Psychometric properties of the Positive Mental Health Scale (PMH-scale)
BMC Psychology (2016) 4:8

Lyubomirsky, S., & Lepper, H. (1999)
A measure of subjective happiness: Preliminary reliability and construct validation
Social Indicators Research, 46, 137-155

Mental health Foundation
<https://www.mentalhealth.org.uk/your-mental-health/about-mental-health/what-good-mental-health>

Paulhus, D. (1998)
Self-Report Measures of Intelligence: Are They Useful as Proxy IQ Tests?
Journal of Personality 66(4):525-554

Peterson, C. & Seligman, M. (2004)
Character strengths and virtues
New York: Oxford University Press

Schulz, J (2021)
Forgiveness in therapy: Help clients forgive themselves and others
Assessed at 26-9-2021 from <https://positivepsychology.com/forgiveness-in-therapy/>

Seligman, M.E.P (2002)
Authentic Happiness Newsletter
Retrieved 3-4-2019 from:
<https://www.authentic happiness.sas.upenn.edu/newsletters/authentic happiness/pleasure>

Valiant, G.E. (2012)
Positive mental health: Is there a cross-cultural definition?
[World Psychiatry](#). 11(2): 93–99

Veenhoven, R. (2003)
Hedonism and happiness
Journal of Happiness Studies, 4, 437-457

Veenhoven, R. (2017)
Measures of happiness: Which to choose?
In: Gaël Brulé & Filomena Maggino (eds.) 'Metrics of Well-being', Springer, Dordrecht, pp 65-84

Veenhoven, R. (2019)
[Concept of happiness.](#)
Introductory text to the Bibliography of Happiness, chapter 2. World Database of happiness, Erasmus University Rotterdam, Netherlands

Veenhoven, R. (2020)
'Hedonic' and 'Eudaimonic' Happiness: Which qualifies best as a moral guide?
EHERO working paper 2020-2
Retrieved from: <https://personal.eur.nl/veenhoven/Pub2020s/2020c-full.pdf>

Veenhoven, R. (2021)

Measures of Happiness

World Database of Happiness, Erasmus University Rotterdam, Netherlands

Available at: <https://worlddatabaseofhappiness.eur.nl/collections/measures-of-happiness/>

White, C.A., Uttl, B. & Holder, M.D. (2019)

Meta-analyses of positive psychology interventions: The effects are much smaller than previously reported

PLoS ONE 14 (5): e0216588. <https://doi.org/10.1371/journal.pone.0216588>