

Summary: 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

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Introduction

A complement to traditional psychology, positive psychology focuses on enhancing well-being and promoting optimal functioning rather than mitigating negative symptoms. A positive psychology approach argues that wellness is not simply the absence of illness. Among the values promoted in positive psychology are gratitude, exploring hope and meaning, kindness, and engaging in positive relationships with others. In light of the growing interest in positive psychology, which has made compelling arguments for positive psychology as a means to prevent psychological symptomatology in non-clinical settings, the authors argue that positive psychology interventions (PPIs) may also be highly beneficial in the clinical setting.

The purpose of this meta-analysis was to determine the effects of PPIs on well-being (primary outcome), depression, anxiety, and stress (secondary outcomes) in clinical samples with psychiatric or somatic disorders.

Study Characteristics

Studies were selected for this meta-analysis based on the following criteria: 1.) examination of a psychological intervention (i.e. training, exercise, therapy) aimed at promoting positive behaviors, cognitions, or feelings; 2.) inclusion of adult participants with either psychiatric or somatic conditions; 3) the use of social, emotional, or psychological well-being as an outcome; 4.) the use of a control condition; and 5.) providing enough information to calculate an effect size. Exclusion criteria included studies that were not published in an English-language peer-reviewed journal, that examined *physical* exercises aimed at improving well-being, or that used an intervention primarily based on reminiscence, mindfulness, and/ or meditation. Published abstracts and/ or study protocols were also excluded.

10,886 studies were initially examined for review. 30 articles were included in the meta-analysis following a thorough screening and eligibility process. Of these 30 studies, a total of 1864 adult participants were included. All 30 studies were randomized controlled trials; 20 of them compared PPIs to treatment as usual or an active control condition (supportive psychotherapy, CBT, DBT, etc.) and 10 of them compared PPIs to a no intervention/ waitlist condition. While PPI types varied considerably between studies, many focused on gratitude, kindness, and meaning-making interventions and well-being therapy. Of the 20 comparing PPIs to treatment as usual or an active control group, 5 used CBT as active control, 2 used supportive psychotherapy, and various others examined massage, cognition focused intervention, emotion reporting, one psycho-educational session, mood monitoring, and writing exercises while examining disorders

such as physical disability and chronic pain, heart diseases, advanced cancer, type 2 diabetes, major depressive disorder, and affective disorders.

The mean age of participants at pre-intervention was 47.8 years (SD=11.5, range 26.4-68.9, 61.5% of which were women). Clinical samples with somatic disorders were included in 16 of the studies, with cancer being the most prevalent (n= 8) and cardiac diseases being the second most prevalent (n=4). The remaining 14 studies included samples with psychiatric disorders, with depressive disorder being the most prevalent (n=7) followed by anxiety disorders (n=2).

Hedges g was used to calculate effect sizes while adjusting for small sample bias, where $g= 0.2$ is a small effect size, 0.5 is a medium effect size, and 0.8 is a large effect size. A small effect size means that even if the difference between the two group means is statistically significant, the actual difference between the group means is trivial.

Results

The authors found a significant, small effect of PPIs on both well-being ($g=0.28$, 95% CI: 0.07 to 0.48, $p=0.008$) and depression ($g=0.27$, 95% CI: 0.09 to 0.45, $p=0.003$). For anxiety, a significant, moderate effect was found at post-intervention ($g=0.47$, 95% CI: 0.23 to 0.71, $p< 0.001$). The overall mean effect size for PPIs on stress was not significant ($g=0.00$; 95% CI: -0.62 to 0.62, $p=0.999$). Notably, subgroup analyses demonstrated a significantly higher effect size for PPIs with therapist guidance compared to those without therapist guidance. However, effect sizes did not vary between groups with psychiatric vs. somatic disorders or between types of PPI/ intervention format.

Conclusions

The findings presented here suggest that PPIs show promise for use in clinical populations, something that wasn't previously established. The results of this analysis show that PPIs have the potential to improve well-being and reduce distress, including depression and anxiety, for populations with both psychiatric and somatic disorders.

Some limitations of this analysis should be noted: first; that well-being was not always a primary outcome in the included studies (but was the primary outcome in this analysis), second; that none of the included studies were reported as high quality; third, that while considering only studies of at least medium quality, the effects of PPIs decrease substantially (but so does sample size). This analysis was broadly inclusive of a number of PPI interventions and patient populations with various somatic and psychological diseases. Further research should be conducted to clarify in further detail who exactly benefits from PPIs and which interventions are the most useful for certain patient groups.

Clinical Applications

At the very least, this analysis should inform providers of the potential use for PPIs as an adjunct to traditional therapies, regardless of the condition(s) they treat. PPIs are not just for patients with diseases that are primarily psychological in nature, but they also can improve well-being for patients with somatic disorders, as shown here.

Results of the subgroup analysis indicate that PPIs with therapist guidance are significantly more effective in promoting well-being than PPIs without therapist guidance. For stress, PPIs were found significantly more effective than no intervention or a waitlist control condition than an active or treatment-as-usual control. No significant differences between subgroups were found for depression and anxiety. This is clinically relevant for a few reasons- the first being that for clinical populations in which well-being is the outcome being measured, providers should primarily focus on using therapist-guided interventions. The authors make a distinction between well-being and psychological distress and point out that treatment of symptoms does not always equate to improved well-being. In attempting to extrapolate the results of this analysis to real patients, it seems like providers can especially focus on the utility of therapist-guided PPIs as a sort of “maintenance intervention” for individuals who are already receiving treatment of symptoms with the goal of preventing relapse or recurrence.

While further research is warranted, this analysis begins to demonstrate what symptoms and outcome measures are best targeted by PPI intervention, that is, well-being, anxiety, and depression as opposed to stress. Perhaps further embracing the results of this analysis would include bringing a PPI-informed psychotherapist on board to a primary care office or writing “PPI scripts” (including specific gratitude/ kindness exercises and meaning-making interventions) for patients who are open to positive psychotherapy.