

Individual-Level Interventions: Summary

Interventions targeting individuals, and outcome measures, are numerous and diverse.

A 2021 review "A systematic review and meta-analysis of psychological interventions to improve mental wellbeing" highlights a range of possible individual-focused interventions from 419 randomised controlled trial (RCTs) involving 53000 participants from clinical and non-clinical populations.¹ Five studies were conducted in NZ. Interventions were based upon numerous theoretical psychological constructs. Among numerous findings, Mindfulness-Based Interventions (MBIs) showed small-to-moderate effect sizes on subjective wellbeing among non-clinical populations compared to controls (Hedges $g=0.42$ 99%CI 0.29-0.55 $p=0.000$). Three Good Things (Hedges $g=0.138$ 99%CI -0.04, 0.31 $p=0.048$) and Optimism/Best Possible Selves ($g=0.213$ 99%CI -0.02, 0.45 $p=0.018$) interventions showed small effect sizes that were not statistically significant compared to controls.

Positive psychological interventions

Positive psychological interventions use pathways consistent with positive psychology theory to achieve the goal of wellbeing enhancement.² PPIs can be classed based upon the type of intervention. For example a 2021 systematic review involving 72000 participants from 347 controlled studies classified PPIs into 10 types, including optimism/hope, gratitude, strengths, savouring, etc.² Among many findings, at post-test, overall PPIs had a significant small to medium effect on wellbeing ($g = 0.39$) which was maintained at 3 months. Savouring ($g= 0.77$ 95%CI 0.49, 1.05 $p<0.001$) and optimism/hope ($g= 0.51$ 95%CI 0.35, 0.69 $p<0.001$) interventions had large and medium significant effects, respectively, on increasing wellbeing.²

Several other systematic review and meta-analyses of positive psychological interventions have been performed. These have differed based upon the participant populations (clinical and non-clinical populations, and non-clinical populations only), in work-based populations only, and based upon the delivery (e.g. peer-led interventions³).

A 2019 meta-analysis included only studies ($n=22$) evaluating work-based positive psychological interventions.⁴ The authors hypothesised interventions would improve work outcomes (including wellbeing, performance, engagement, etc); effects of interventions may vary based upon the theoretical construct of the study; and may vary depending upon mode of delivery (online, to individuals or groups in person). They concluded that overall PPIs had a small to moderate effect on work outcomes (Hedges' $g= 0.31$, 95%CI 0.24, 0.38, $p < 0.001$). There were no statistically significant differences on work outcomes between theory type, and all three modes of delivery were effective, with group-based interventions slightly more effective. Feasibility of any intervention is important, so while group-based long-term interventions may be most desirable in research studies to assess efficacy, given our constraints brief individual online interventions are more feasible.

One of the challenges with research with PPIs is the need to cater to different needs and interests between individuals. Authors of an editorial point out that "*positive psychology interventions cannot be based on a one-size-fits-all approach to well-being but need to be tailored to the needs of the individual and the needs of the organization.*"⁵ To cater for individual needs as well as

feasibility for busy healthcare professionals multicomponent PPIs can be used, as exemplified by a team at Duke University. Participants are given the option of choosing suitable PPIs from a suite of brief web-based individual interventions. Research on this intervention is ongoing, and originally included six interventions (including Three Good Things, Gratitude, etc). In a pragmatic wait-list randomised control study of 471 HCWs in 2 cohorts from Neonatal Intensive Care Units, there were statistically significant reductions in burnout (Emotional Exhaustion -5.21 95%CI $-7.92, -2.51$ $p<0.001$) and other measures at 1 month, which endured at 6 months.⁶

Potentially feasible and effective PPIs for HCWs include Three Good Things (TGT)⁷⁻⁹ and Looking Forward (LF) interventions.⁸ TGT is a brief low cost intervention that requires daily participation by writing down and considering what is going well in a participants life, and their role in that. By deliberately focussing on things that are going well, the intervention promotes reflection, gratitude, and savouring positive emotion. Benefits of a 15-day intervention of HCP participants ($n=228$) demonstrated improved emotional exhaustion (Cohen's $d=0.2$ $p<0.05$) that continued at 12 months.⁹

By encouraging consideration of optimal future at different time periods, LF is a brief online intervention that promotes hope/optimism and goal setting. In a single centre study of 123 HCWs there were significant improvements in depression and optimism (*paired t*(51) $=-2.49$ $p<0.05$) at day 28.⁸ While limited by a lack of control group these findings are consistent with other hope/optimism interventions that demonstrate improved wellbeing measures ($g=0.51$) as noted above.²

Mindfulness at work

Mindfulness can be defined as *"the ability to observe thoughts, bodily sensations or feelings in the present moment with an open and accepting orientation toward one's experiences."*¹⁰

Online MBI have positive effects on stress. A 2016 meta-analysis of 15 RCTs involving 2360 participants *"Effectiveness of online mindfulness-based interventions in improving mental health: A review and meta-analysis of randomised controlled trials"* found small-to-moderate significant positive effects on wellbeing (Hedge's $g=0.23$ 95%CI 0.09, 0.38 $p<0.01$) and stress ($g=0.51$ 95%CI 0.26, 0.75 $p<0.001$) compared to controls.¹⁰

In NZ, The Mental Health Foundation and Health Promotion Agency recommend "Taking Notice" as one of the "5 Ways to Wellbeing at Work".¹¹ One recommendation associated with this is to *"Introduce mindful awareness through a breathing or mindfulness exercise at the start of meetings"* (page 15)¹¹. In UK, National Institute for Health and Care Excellence (NICE) recommends that employers make mindfulness available to all employees, to support mental wellbeing at work.¹²

In healthcare, a 2019 systematic review of mindfulness based interventions for healthcare professionals ($n=34$ studies, 1439 participants) concluded that there was insufficient evidence of effect of MBIs on burnout in HCPs.¹³ Thirteen studies had a control group, including 9 RCTs, and most MBIs were 8-week MBSR courses. A recent RCT of 2182 NHS staff comparing the mindfulness training app Headspace with an NHS-based work stress internet resource

(Moodzone) as an active control demonstrated improved stress and other measures, but not burnout.¹⁴ The challenges of feasibility with mindfulness training was highlighted by a small study of 33 paediatric residents who used a 10-day online free app program (Headspace). Only 11 participants completed follow up, most citing time as a limitation, and there were no significant changes in burnout.¹⁵

Requirements of individual-level interventions include that a range of options must be available to individuals to be acceptable, interventions must be feasible, and such interventions must be considered a part of greater whole that includes group- and organisation-level interventions.

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