COCHRANE CORNER

Psychological interventions to foster resilience in healthcare students: a Cochrane Review[†]

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See Round the Corner in this issue.

Background

Resilience can be defined as maintaining or regaining mental health during or after significant adversities such as a potentially traumatising event, challenging life circumstances, a critical life transition or physical illness. Healthcare students, such as medical, nursing, psychology and social work students, are exposed to various study- and work-related stressors, the latter particularly during later phases of health professional education. They are at increased risk of developing symptoms of burnout or mental disorders. This population may benefit from resilience-promoting training programmes.

Objectives

To assess the effects of interventions to foster resilience in healthcare students, that is, students in training for health professions delivering direct medical care (e.g. medical, nursing, midwifery or paramedic students), and those in training for allied health professions, as distinct from medical care (e.g. psychology, physical therapy or social work students).

Search method

We searched CENTRAL, MEDLINE, Embase, 11 other databases and three trial registries from 1990 to June 2019. We checked reference lists and contacted researchers in the field. We updated this search in four key databases in June 2020, but we have not yet incorporated these results.

Selection criteria

Randomised controlled trials (RCTs) comparing any form of psychological intervention to foster resilience, hardiness or post-traumatic growth versus no intervention, waiting list, usual care, and active or attention control, in adults (18 years and older), who are healthcare students. Primary outcomes were resilience, anxiety, depression, stress or stress perception, and well-being or quality of life. Secondary outcomes were resilience factors.

Data collection and analysis

Two review authors independently selected studies, extracted data, assessed risks of bias, and rated the certainty of the evidence using the GRADE approach (at post-test only).

Main results

We included 30 RCTs, of which 24 were set in high-income countries and six in (upper- to lower-) middle-income countries. Twenty-two studies focused solely on healthcare students (1315 participants; number randomised not specified for two studies), including both students in health professions delivering direct medical care and those in allied health professions, such as psychology and physical therapy. Half of the studies were conducted in a university or school setting, including nursing/midwifery students or medical students. Eight studies investigated mixed samples (1365 participants), with healthcare students and participants outside of a health professional study field.

Participants mainly included women (63.3% to 67.3% in mixed samples) from young adulthood (mean age range, if reported: 19.5 to 26.83 years; 19.35 to 38.14 years in mixed samples). Seventeen of the studies investigated group interventions of high training intensity (11 studies; >12 h/sessions), that were delivered face-to-face (17 studies). Of the included studies, eight compared a resilience training based on mindfulness versus unspecific comparators (e.g. wait-list).

The studies were funded by different sources (e.g. universities, foundations), or a combination of various sources (four studies). Seven studies did not specify a potential funder, and three studies received no funding support.

Risk of bias was high or unclear, with main flaws in performance, detection, attrition and reporting bias domains.

At post-intervention, very-low certainty evidence indicated that, compared to controls, healthcare students receiving resilience training may report higher levels of resilience (standardised mean difference (SMD) 0.43, 95% confidence interval (CI) 0.07 to 0.78; 9 studies, 561 participants), lower levels of anxiety (SMD –0.45, 95% CI –0.84 to –0.06; 7 studies, 362 participants), and lower levels of stress or stress perception (SMD –0.28, 95% CI –0.48 to –0.09; 7 studies, 420 participants). Effect sizes varied between small and moderate. There was little or no evidence of any effect of resilience training on depression (SMD –0.20, 95% CI –0.52 to 0.11; 6 studies, 332 participants; very-low certainty evidence) or well-being or quality of life (SMD 0.15, 95% CI –0.14 to 0.43; 4 studies, 251 participants; very-low certainty evidence).

Adverse effects were measured in four studies, but data were only reported for three of them. None of the three studies reported any adverse events occurring during the study (very-low certainty of evidence).

Authors' conclusions

For healthcare students, there is very-low certainty evidence for the effect of resilience training on resilience, anxiety, and stress or stress perception at post-intervention.

The heterogeneous interventions, the paucity of short-, medium- or long-term data, and the geographical distribution restricted to high-income countries limit the generalisability of results. Conclusions should therefore be drawn cautiously. Since the findings suggest positive effects of resilience training for healthcare students with very-low certainty evidence, high-quality replications and improved study designs (e.g. a consensus on the definition of resilience, the assessment of individual stressor exposure, more attention controls, and longer follow-up periods) are clearly needed.

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