

Efficacy of interventional programs in reducing acculturative stress and enhancing adjustment of international students to the new host educational environment: a systematic review and meta-analysis

ABSTRACT

This review aimed to systematically outline and meta-analyze the efficacy of psychoeducational, cultural orientation, socio-cultural, and peer-pairing programs in reducing acculturative stress and enhancing adjustment among international students worldwide. The consulted databases were PubMed, Scopus, Web of Science, ScienceDirect, EBSCO, and ProQuest. Eligibility criteria allowed the inclusion of randomized controlled trials (RCTs) and quasi-experimental trials without applying language, country, publication type or time restrictions. The quality of the eligible studies was appraised by the RoB2 tool of Cochrane for RCTs and JBI critical appraisal tools for quasi-experimental trials. Data items were collected based on PICO acronym by two investigators and reviewed for accuracy by a third one. The evidence was narratively synthesized and validated by proceeding with a random model meta-analysis using Cochrane RevMan software (Version 5.4). The quality of the pooled evidence from meta-analysis was assessed using the tool of GRADE. Out of 29,975 retrieved records, 14 studies (six RCTs and eight quasi-experimental trials) were included. The psychoeducational program significantly reduced acculturative stress and enhanced adjustment. In contrast, cultural orientation and peer-pairing programs significantly enhanced adjustment, but could not reduce acculturative stress. In meta-analysis, acculturative stress was significantly reduced in the psychoeducational intervention versus controls [overall pooled size effect = -3.89 (95% CI: $-5.42, -2.53$) at $p < 0.001$]. Similarly, adjustment was significantly enhanced in the psychoeducation and socio-cultural interventions versus control [overall pooled size effect = 3.10 (95% CI: $2.35, 3.85$) at $p < 0.001$]. In conclusion, the psychoeducational program demonstrated superior efficacy in reducing acculturative stress and enhancing adjustment compared to the other interventional programs. However, socio-cultural programs have still been effective in enhancing adjustment. This systematic review is registered in PROSPERO (CRD42018104211).

Keyword: Acculturative stress; Adjustment; International students; Intervention; Systematic review; Meta-analysis