International Platform of Registered Systematic Review and Meta-analysis Protocols

INPLASY PROTOCOL

To cite: Chust-Hernández et al. Effectiveness of non-pharmacological treatments for academic stress in university students: a protocol for a systematic review. Inplasy protocol 202270071. doi: 10.37766/inplasy2022.7.0071

Received: 14 July 2022

Published: 14 July 2022

Corresponding author:
Pablo Chust Hernández

pablo.chust@ucv.es

Author Affiliation:
Department of Academic Guidance. Faculty of Nursing. Catholic University of Valencia, Spain.

Support: **None.**

Review Stage at time of this submission: **Data analysis.**

Conflicts of interest:
None declared.

Effectiveness of non-pharmacological treatments for academic stress in university students: a protocol for a systematic review

Chust-Hernández, P[1]; López-González, E[2]; Senent-Sánchez, JM[3]

Review question / Objective: **The aim of this systematic review is to analyse the effectiveness of different non-pharmacological interventions on academic stress in university students.**
Eligibility criteria: **Those articles that meet the following criteria will be included: 1) Papers that refer to the evaluation of the efficacy of an intervention on purely academic stress, assessed with a specific academic stress assessment instrument and not general or perceived stress; 2) Samples composed only of university students; 3) Empirical studies with pretest-posttest; 4) Studies published in English, Spanish and Portuguese; 5) Articles published in the last 10 years (since January 1, 2011). Registers will be excluded if: 1) they do not meet the inclusion criteria; 2) they do not clearly define the assessment instrument or the type of stress they assess; 3) studies that do not clearly specify the implementation of a prospective intervention (e.g. studies that analyse the relationship between academic stress and having ever sought counselling from a university counselling or mental health service); 4) grey literature.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 July 2022 and was last updated on 14 July 2022 (registration number INPLASY202270071).

INTRODUCTION

Review question / Objective: **The aim of this systematic review is to analyse the effectiveness of different non-pharmacological interventions on academic stress in university students.**

Rationale: **The academic stress is defined as which is generated from the demands of the academic context, without any**

significant involvement of aspects external to academic life (Onievaฆ\Zafra et al., 2020). Three types of stressors that nursing students have to face are described in the scientific literature: academic, external, and related to clinical practice. Most studies state that academic stressors are those with the greatest impact (Rafati et al., 2017).

Although an adequate level of academic stress is necessary to increase persistence in learning and improve performance (You, 2018) when it exceeds certain levels, it may be a risk factor for depression (Asif et al., 2020; Barker et al., 2018; Newcombฆ\Anjo et al., 2017), dissatisfaction with life (Karaman et al., 2019), por sleep quality (Mendes & Martino, 2020), poor adjustment to university (Belay Ababu et al., 2018), and poor academic results (Hamaideh et al., 2017). In view of the problems associated with academic stress, it is necessary to analyse the evidence for various interventions aimed at reducing it.

Several systematic reviews have examined the effectiveness of interventions on general or perceived stress in university students. However, none has been published analysing the effectiveness of interventions on purely academic stress as far as it is known.

Condition being studied: Interventions, actions and non-pharmacological treatments to reduce or minimise academic stress in university students.

METHODS

Search strategy: The search strategy will consist of the following search terms: ((academic stress OR stress OR academic distress OR university stress) AND (stress management method OR stress management methods OR stress management techniques OR stress management strategies OR stress reduction OR stress intervention OR stress-reducing) AND (university students OR college students OR students OR Higher Education)). This search strategy will be adapted to the syntax and specific characteristics of each bibliographic database. Research will be filtered by title, abstract and subject terms. The systematic search will be limited by methodology (empirical studies), group (university students) and language (English, Portuguese and Spanish). 19 databases will be consulted: 6 from the field of Psychology (APA Psycinfo, Psychology and Behavioral Sciences Collection, Psychology database, Psicodoc, Pubpsych, PsycArticulos), 3 in Education (Education Research Complete, ERIC, Education Source), 5 in Health Sciences (Medline, CINAHL, Lilacs, Embase, SPORTDiscus) and 5 multidisciplinary (Dialnet, ProQuest central, Open Dissertations, Web of Science, Cochrane).

Participant or population: University students regardless of gender, age, field of study, country of origin and ethnicity.

Intervention: Interventions and treatments to reduce academic stress. Any type of intervention aimed at this purpose will be taken into account, except for pharmacological interventions.

Comparator: None.

Study designs to be included: Empirical studies with controlled (randomised and non-randomised) and uncontrolled pretest-posttest experimental designs.

Eligibility criteria: Those articles that meet the following criteria will be included: 1) Papers that refer to the evaluation of the efficacy of an intervention on purely academic stress, assessed with a specific academic stress assessment instrument and not general or perceived stress; 2) Samples composed only of university students; 3) Empirical studies with pretest-posttest; 4) Studies published in English, Spanish and Portuguese; 5) Articles published in the last 10 years (since January 1, 2011). Registers will be excluded if: 1) they do not meet the inclusion criteria; 2) they do not clearly define the assessment instrument or the type of stress they assess; 3) studies that do not clearly specify the implementation of a prospective intervention (e.g. studies that

analyse the relationship between academic stress and having ever sought counselling from a university counselling or mental health service); 4) grey literature.

Information sources: 19 Databases to be consulted: APA Psycinfo, Psychology and Behavioral Sciences Collection, Psychology database, Psicodoc, Pubpsych, PsycArticulos, Education Research Complete, ERIC, Education Source, Medline (via Pubmed), CINAHL, Lilacs, Embase, SPORTDiscus, Dialnet, ProQuest central, Open Dissertations, Web of Science, Cochrane.

Main outcome(s): Identification of the main interventions and treatments to reduce academic stress among university students: type of intervention (therapy or treatment provided), description of the intervention (modality, duration), measures of academic stress assessment, main outcomes and follow-up; characteristics of study participants (country, field of study or degree, gender, age); study design, analysis of risk of bias and analysis of the quality of the scientific evidence found.

Additional outcome(s): None.

Data management: References identified by the search strategy will be entered into Mendeley bibliographic software, and duplicates will be removed. Titles and abstracts will be screened independently by two reviewers. When decisions cannot be made from the title and abstract alone, the full article will be retrieved. Full-text inclusion criteria will be screened independently by two reviewers. Discrepancies during the process will be resolved through discussion (with a third reviewer when necessary). Data collected will include: general information (author, year); study design; characteristics of the study sample (size, distribution by gender, age, country, field of study or degree); characteristics of the measures to assess academic stress (name of the measure, form of administration, reliability and validity); characteristics of the intervention (therapy or treatment carried out, aspects worked on or promoted, modality, duration, main results, follow-up).

Quality assessment / Risk of bias analysis: The Cochrane Collaborations' tool (Higgins et al., 2011) for assessing the bias risk of experimental and quasi-experimental studies will be conducted. The Grade System will be used to analyse the quality of the scientific evidence found. The recommendations of the PRISMA statement will be followed to improve the clarity, transparency and quality of the systematic review.

Strategy of data synthesis: Data extracted from each study will be summarised in two tables including the name of the study (authors and year), country, field of study or qualifications of the sample, total N, proportion of males and females, mean age, type of intervention (therapy or treatment provided), description of the intervention (modality, duration), measures of academic stress assessment, main outcomes and follow-up, effect size, assessment of risk of bias and quality of evidence.

Subgroup analysis: A subgroup analysis will be carried out based on the different intervention methods described in the studies and the effectiveness of these interventions.

Sensitivity analysis: Different types of interventions to reduce academic stress will be compared according to the research design and risk of bias of the primary studies.

Language: Articles published in English, Portuguese and Spanish will be included.

Country(ies) involved: Spain.

Other relevant information: None.

Keywords: Academic stress; Stress; Stress Management; Stress intervention; University students; Higher Education.

Dissemination plans: Results will be published in a peer-reviewed scientific journal.

Contributions of each author:

Author 1 - Pablo Chust-Hernández - The author will be actively involved in all phases of the systematic review.
Email: pablo.chust@ucv.es
Author 2 - Emelina López-González - The author will be actively involved in all phases of the systematic review.
Email: emelina.lopez@uv.es
Author 3 - Joan Maria Senent-Sánchez - The author will be actively involved in all phases of the systematic review.
Email: joan.m.senent@uv.es