INPLASY

Explanatory Variables of Undergraduate Student Dropout by Mode of Study: An Umbrella Review of Systematic Reviews

Corresponding author:
Alfredo Guzmán Rincón

alfredo.guzman@asturias.edu.co

Author Affiliation:
Universidad de Bogotá Jorge Tadeo LozanoUniversidad de Bogotá Jorge Tadeo Lozano.

Barrágan, S[1]; Guzmán, A[2]; González, L[3]; Calderón, P[4]; Lozano, O[5].

ADMINISTRATIVE INFORMATION

INTRODUCTION

*R*eview question / Objective What variables explain student dropout at the undergraduate level based on the mode of study (in-person, virtual, and hybrid)?

Rationale The proposed umbrella review with a comparative perspective by mode is essential due to the relevance and complexity of this phenomenon in the educational context. Addressing a complex and multifaceted issue involving economic, academic, social, and technological factors requires comparing in-person, virtual, and hybrid educational modes to gain a comprehensive and enriching understanding of the various explanatory variables influencing dropout rates. This approach facilitates a deeper comprehension and the development of effective strategies for prevention and mitigation in higher education. Prior to this, such a review synthesizing evidence in higher education is not evident.

Condition being studied Student Dropout in Undergraduate Programs.

METHODS

Search strategy To identify potentially relevant documents, the following databases will be used: SCOPUS, Web of Science, ERIC, EBSCO, ProQuest, and JSTOR. The search will be conducted using truncated symbols and Boolean operators to maximize the inclusion of relevant terms. The search terms have been formulated based on previous literature reviews and have been selected to ensure coverage of synonyms used by scholars to refer to dropout in English. These terms include: "dropout", "drop out", "drop-out", "dropping out", "desertion", "attrition", and

"withdrawal". Appropriate truncation will be applied to capture all variations of each term.

In order to limit the search to higher education and avoid results related to previous educational levels, the terms "higher education", "university", "college", and "tertiary education" will be used. Additionally, the search will be restricted to the undergraduate level of education through the following terms: "Bachelor", "degree", and "undergraduate". Furthermore, the following terms will be used as exclusion criteria: "postgraduate", "master programs", "doctoral programs", and "PhD".

Regarding the instructional mode for the comparison, the following terms will be considered: "Presential attendance" OR "hybrid attendance" OR "virtual attendance" OR "Presential modality" OR "hybrid modality" OR "virtual modality" OR "In-person attendance" OR "blended learning" OR "remote attendance" OR "Face-to-face modality" OR "In-person instructional modality" OR "hybrid instructional modality" OR "virtual instructional modality" OR "remote instructional modality".

Participant or population Undergraduate university students.

Intervention Variables explaining student dropout.

Comparator Educational mode: in-person, virtual, and hybrid.

Study designs to be included Only peer-reviewed systematic reviews will be included, published after the peer-review process.

Eligibility criteria For this study, peer-reviewed documents focusing on undergraduate student dropout will be included in the review. The selected documents must be systematic reviews; reviews published in conference proceedings, book chapters, theses, and any other form of dissemination apart from academic journals will be excluded. Only documents written in English or Spanish will be included. Works that combine undergraduate and postgraduate students in their results and do not provide a distinct analysis for student populations will not be included.

Information sources The information source will be limited to the electronic databases mentioned in the search strategy section, thereby ensuring the quality of the editorial process of the selected documents.

Main outcome(s) Among the anticipated outcomes, the objective is to reveal patterns and trends within the literature while identifying the most pertinent explanatory variables for each educational mode. The aim is to gain a comprehensive overview of the various reasons that lead students to discontinue their undergraduate education. These findings will contribute to a deeper understanding of the phenomenon of student dropout and will provide valuable insights for informed decision-making in the formulation of effective student retention strategies.

These results will be documented and presented in a research article.

Data management For this stage, the reviewers will collaboratively create a spreadsheet to establish which variables need to be extracted from the documents, thereby generating a standardized abstraction tool. The completion of the spreadsheet will be carried out independently by the reviewers. The results will be discussed and refined through an iterative process.

Quality assessment / Risk of bias analysis To conduct the assessment of primary study quality, pre-established and recognized criteria from academic literature will be utilized. These criteria will encompass key aspects related to research design, methodology employed, sample selection, data analysis, and result presentation. Each study will be evaluated based on its adherence to these criteria, enabling the determination of scientific rigor and the reliability of presented results.

Additionally, a thorough analysis of potential biases that could impact the validity of primary studies will be conducted. Factors such as selection bias, information bias, and confounding bias, among others, will be identified and considered. This systematic assessment of bias risk will offer a more comprehensive and objective view of the methodological quality of studies included in the umbrella review.

It is crucial to emphasize that the quality of primary studies and the associated bias risk will be considered in the results analysis and interpretation of conclusions in this umbrella review.

Strategy of data synthesis To perform data synthesis in this umbrella review, a combination of tools and methods will be employed. Firstly, the bibliographic manager Zotero will be utilized to organize and manage the extensive number of identified primary studies. Through Zotero, relevant information from each study will be extracted, including author details, publication year, study country/region, and primary results related to identified variables in the review.

Subsequently, the VOSviewer software will be used to conduct a co-occurrence analysis of terms within the titles and abstracts of primary studies. This technique will enable the identification of emerging patterns and the visualization of relationships among explanatory variables for undergraduate student dropout based on the most recurrent trends in academic literature. VOSviewer will offer a clear panorama of thematic structure and the relative significance of each variable in the broader context of student dropout.

In addition to these tools, inductive methods will be employed to qualitatively analyze and synthesize information extracted from primary studies. Through this approach, recurring themes, emerging patterns, and potential relationships between explanatory variables and undergraduate study modes will be identified. The inductive analysis will provide a deeper understanding of the complexities and nuances of factors influencing student dropout in each educational mode.

The combination of these strategies will lead to a comprehensive and enriching data synthesis, facilitating the identification of key patterns and the formulation of robust conclusions regarding explanatory variables for undergraduate student dropout by study mode. This data synthesis will support informed decision-making for the development of effective student retention policies and strategies in the educational context.

Subgroup analysis Educational mode.

Sensitivity analysis Given the nature of the review, a sensitivity analysis is not envisaged.

Language restriction Only peer-reviewed systematic reviews published in Spanish or English after the peer-review process will be considered.

Country(ies) involved Colombia.

Keywords Dropout; higher education: undergraduate students; systematic review; educational modality; explanatory variable.

Contributions of each author
Author 1 - Sandra Patricia Barragán Moreno.
Email: sandra.barragan@utadeo.edu.co
Author 2 - Alfredo Guzmán Rincón.
Email: alfredo.guzman@asturias.edu.co
Author 3 - Leandro González Támara.
Email: leandro.gonzalez@utadeo.edu.co
Author 4 - Gloria Patricia Calderón Carmona.
Email: gloria.calderon@utadeo.edu.co
Author 5 - Oscar Leonardo Lozano Galindo.
Email: oscarl.lozanog@utadeo.edu.co