

# INPLASY PROTOCOL

To cite: Hardani et al. The Effect of Emotion Self-Regulation on Academic Achievement During Adolescence: a Protocol for a Systematic Literature Review And Meta-Analyses. Inplasy protocol 202230073. doi: 10.37766/inplasy2022.3.0073

Received: 15 March 2022

Published: 16 March 2022

**Corresponding author:**  
Rika Hardani

rikaheru97@mail.ugm.ac.id

**Author Affiliation:**  
Gadjah Mada University

**Support:** No.

**Review Stage at time of this submission:** The review has not yet started.

**Conflicts of interest:**  
None declared.

## The Effect of Emotion Self-Regulation on Academic Achievement During Adolescence: a Protocol for a Systematic Literature Review And Meta-Analyses

Hardani, R<sup>1</sup>; Setiyawati, D<sup>2</sup>; Susetyo, YF<sup>3</sup>.

**Review question / Objective:** The research uses the PICOS method to determine the topic and research objectives. PICOS stands for population, intervention, comparison, outcomes and study. PICOS is one of the guidelines that is often used in quantitative research in systematic research literature reviews (Eriksen & Frandsen, 2018). This study intends to determine how the influence of adolescent self-regulation of emotions on academic achievement.

**Condition being studied:** In the process of achieving high academic achievement, apart from the role of cognitive factors, non-cognitive factors also play an important role. In psychology, there are non-cognitive variables called emotion self-regulation. Many previous studies have investigated this matter. However, researchers have not found a systematic literature review that discusses the effect of emotion self-regulation on adolescent academic achievement.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 March 2022 and was last updated on 16 March 2022 (registration number INPLASY202230073).

### INTRODUCTION

**Review question / Objective:** The research uses the PICOS method to determine the topic and research objectives. PICOS stands for population, intervention, comparison, outcomes and study. PICOS is one of the guidelines that is often used in quantitative research in systematic

research literature reviews (Eriksen & Frandsen, 2018). This study intends to determine how the influence of adolescent self-regulation of emotions on academic achievement.

**Rationale:** Emotion self-regulation is a process that occurs when emotions are managed according to one's goals,

automatically or controlled, consciously or unconsciously (Gross & John, 2003). Increased emotionality during adolescence occurs because of emotional regulation up and down (Ernst et al., 2006; Nelson et al., 2005; Steinberg, 2008). Emotional changes in adolescence often make adolescents feel uncomfortable, emotional changes, and enthusiasm for learning are unstable, so this can affect academic achievement (Gilar-Corbi et al., 2020).

**Condition being studied:** In the process of achieving high academic achievement, apart from the role of cognitive factors, non-cognitive factors also play an important role. In psychology, there are non-cognitive variables called emotion self-regulation. Many previous studies have investigated this matter. However, researchers have not found a systematic literature review that discusses the effect of emotion self-regulation on adolescent academic achievement.

## METHODS

**Search strategy:** The search strategy will only include original articles in the ProQuest, EBSCO, Google Scholar, Scopus, Science Direct, and JSTOR databases. Keywords used in the search process will include "Adolescents", "Emotion Self-Regulation", , "Academic Achievements", and synonyms in the dictionary. The search process will be carried out on 20/3/2022 and 20/5/2022 and researchers will use English publications in the period 2000 to 2022. In this study, screening, identification and selection procedures were performed with the Statement of Choice Reporting Items for Systematic Review and Meta-analysis (PRISMA) (Mother et al, 2009). The search strategy used in the above databases depends on the specific search views available in each database (e.g., keyword truncation, options to expand, limit, or narrow search results, article publication year restrictions). This research will try to study the origin and development of a theory, construct, or model of interest. Furthermore, it will also identify new findings and developments on a topic by conducting backward reference searches.

Identification of new findings and developments on a topic will be carried out by searching for future references. Review articles on emotional self-regulation and academic achievement were also sought for additional relevant studies. Reverse and forward reference searches were performed to identify studies not found in the initial database search (Card 2012).

**Participant or population:** Participants from the research is articles that examine male and female adolescent aged 10-24 years. Articles using adolescent participants who are sick or have special conditions (eg autism, depression, drug addiction or special needs) will be excluded.

**Intervention:** The study will observe the role of adolescent emotion self-regulation on academic achievement. This study also examines how to improve the ability of good emotion self-regulation in adolescents. Research that uses qualitative, quantitative, mixed methods and other measurement methods that are appropriate to the research topic will be studied in detail.

**Comparator:** Journal used in this research is a journal that can explain the relationship or effect between emotion self-regulation on adolescent academic achievement. The emotion self-regulation dimensions that will be used are reappraisal and suppression (Gross & John, 2003). The academic achievement criteria used are based on the assessment of learning outcomes.

**Study designs to be included:** We will include original and English articles. That the included studies will be experimental, observational, cross-sectional and the longitudinal study focused on the role of non-cognitive psychological variables, namely emotion self-regulation on adolescent academic achievement, regardless of whether the population is clinical or non-clinical. This systematic review protocol will be carried out following Cochrane manual for systematic review and will follow the statement systematically reviews and meta-analyses

**PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocol.**

**Eligibility criteria:** Journal to be used are journals that are relevant to the research topic and fulfill inclusion predetermined criteria. The inclusion criteria of the journal that will be used are research using adolescent participants, with the topic of the role of emotion self-regulation on academic achievement, involving healthy participants.

**Information sources:** Journal will be taken from the database search, namely from ProQuest, JSTOR, EBSCO, Science Direct, and Scopus. The research will also take data from grey literature (scholar google). and if needed, the researcher will also perform a hand search or contact the journal author for confirmation.

**Main outcome(s):** The main result expected from this research is to obtain a clear picture of the effect of emotion self-regulation on academic achievement in adolescents. The effect measurements to be carried out are as follows: After conducting a systematic review, if the data are relevant for quantitative analysis, we will use a meta-analysis approach. The meta-analysis will be observed using the mean, standard deviation value, and the number of subjects to be taken from the study. Then presented as forest plots using RevMan software version 5.4, Cochrane Collaboration, 2020 (Higgins et al., 2011). The minimum level of significance was  $p < 0.05$ .

**Additional outcome(s):** Additional results that are expected to be obtained from this research are factors or conditions to improve the ability of adolescents to regulate their emotions.

**Data management:** Researchers conducted the process of searching and identifying data by following the PRISMA guidelines. The results of this data search and identification process will be based on the inclusion and exclusion criteria that have been determined. The research process for

this systematic literature review will be carried out by three reviewers using Rayyan for Systematic Reviews. In the analysis process, we use the excel program to process article analysis. The selection process to determine the eligibility of articles is carried out in three stages. First, duplicate studies classifying the entire database are reported and excluded. The second step is to check the title and abstract based on the inclusion and exclusion criteria that have been set. The third stage is to review and determine whether the article is relevant or not to the research, based on the inclusion criteria. The third stage of this process is to determine whether an article meets the criteria or not based on the inclusion criteria to obtain a clear picture of the effect of self-regulation of emotions on academic achievement in adolescents. The effect measurements to be carried out are as follows: The results of the article screening process will be recorded, both selected and unselected articles. The screening process will follow the PRISMA flowchart format. The reasons for selecting the articles will also be included in the PRISMA flowchart. The information to be explored is information about the influence of self-regulation of emotions and academic success in adolescents. Data obtained from articles (eg, type of study, measuring instrument used, number of participants, research location, year the article was published) included participant characteristics (eg, gender, age, education). The data obtained will be coded in standard form.

**Quality assessment / Risk of bias analysis:** Articles that meet the inclusion and exclusion criteria will be tested again using the Critical Appraisal Skills Program (CASP) (2018) method. At the critical appraisal stage, the article will be studied in detail using full text. Articles that do not meet the eligibility standards or have low scores based on the results of the critical assessment will be separated and studied further, whether they can still be used or not. The results of the systematic review will be published in an international peer-reviewed journal.

---

**Strategy of data synthesis:** The process of data synthesis, the first thing to do, is to record the characteristics of each article. The characteristics of the research summarized include research design, adolescent emotion self-regulation condition, type of parenting (authoritative, permissive or authoritarian), adolescent grit level (high or low) and participant characteristics. . Characteristics of participants in this study include age range, average age, gender, number of participants. Characteristics of participants who do not meet the criteria will be excluded from the study. The next step after obtaining the relevant research results, then these studies begin to be synthesized. This analysis stage will be carried out by two reviewers who will analyze each article. The results of the analysis are then entered into two tables. If there is a difference of opinion in determining the inclusion or exclusion criteria, the third researcher will ask for an opinion. When sufficient data were available and statistical heterogeneity was below agreed thresholds, we performed a meta-analysis to pool efficacy results across studies including studies for results of interest and presented forest plots for the main meta-analysis. The results of the synthesis produce an outcome on how parental care for teenagers can grow adolescent grit. The results of this synthesis are expected to provide an explanation of the review questions.

**Subgroup analysis:** The research team will conduct a sub-group analysis by re-analyzing the selected articles in several more detailed stages

**Sensitivity analysis:** Critical appraisal will be carried out on selected articles for the purpose of sensitivity analysis. Critical assessment will be selected according to the type of study in the selected journal. The study will be conducted by three independent reviewers.

**Language:** English.

**Country(ies) involved:** Indonesia.

**Keywords:** emotion self-regulation, academic achievement, adolescence, systematic literature review, meta-analysis.

**Dissemination plans:** The research team will submit the results of this research to Scopus indexed journal publisher or other high-quality publishers. We hope that the results of this study are read by many people, so that can provide many benefits, especially in the fields of education and psychology.

**Contributions of each author:**

**Author 1 - Rika Hardani -** The first author formulates a research topic plan based on the results discussion with the second and third authors. The initial screening process for articles will be carried out by the first author, followed by the next stage screening process until the final article is obtained.

Email: rikaheru97@mail.ugm.ac.id

**Author 2 - Diana Setiyawati -** The second author carried out the final journal selection process and assessed the journals. Furthermore, the second author will read the full text of the selected article and analyze the data obtained. Then, the second author examine the results that have been compiled by the first author.

Email: diana@ugm.ac.id

**Author 3 - Yuli Fajar Susetyo -** The third author carried out the final journal selection process and assessed the journals. Furthermore, the third author will read the full text of the selected article and analyze the data obtained. The third author also examine the results that have been compiled by the first author.

Email: fajar\_psy@ugm.ac.id