

# INPLASY PROTOCOL

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## Effect of the PRECEDE-PROCEED Model on Health Programs; A Systematic Review and Meta-Analysis

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**Conflicts of interest:**  
None declared.

**Review question / Objective:** This study aimed to systemically analyze previous studies that used the PRECEDE-PROCEED model and performed to examine the effectiveness and usefulness of health promotion intervention across different settings and populations.

**Condition being studied:** The eligibility criteria for studies were as follows: (a) studies containing participants of all ages, healthy people, and people with diseases in community and hospital settings; (b) intervention studies using the PRECEDE-PROCEED model, excluding those that used only the PRECEDE model and observational studies; and (c) studies containing health-related outcomes, with behavior, cognitive and physiological health, and quality of life as primary outcomes, as well as other predisposing factors for effective intervention based on the PRECEDE-PROCEED model.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 May 2022 and was last updated on 04 May 2022 (registration number INPLASY202250017).

### INTRODUCTION

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containing health-related outcomes, with behavior, cognitive and physiological health, and quality of life as primary outcomes, as well as other predisposing factors for effective intervention based on the PRECEDE-PROCEED model.

## METHODS

**Search strategy:** The search term combinations we used were [Precede-Proceed AND Model] OR [Precede-Proceed Model OR Precede Proceed] OR [Precede-Proceed AND health promotion] OR [Precede-Proceed AND community health planning] OR [Precede-Proceed AND population-based planning] OR [Precede-Proceed AND health program] OR [Precede-Proceed AND program evaluation] OR [Precede-Proceed AND intervention]. The databases used to search for the published articles were PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, and Scopus; the databases used to search for the gray literature were ProQuest, Regional Information Sharing Systems (RISS), and OpenGrey.

**Participant or population:** Participants of all ages, healthy people, and people with diseases in community and hospital settings.

**Intervention:** Intervention using the PRECEDE-PROCEED model.

**Comparator:** Usual care.

**Study designs to be included:** Randomized controlled trials (RCTs) or quasi-experimental.

**Eligibility criteria:** (a) studies containing participants of all ages, healthy people, and people with diseases in community and hospital settings; (b) intervention studies using the PRECEDE-PROCEED model, excluding those that used only the PRECEDE model and observational studies; and (c) studies containing health-related outcomes, with behavior, cognitive and physiological health, and quality of life as primary outcomes, as well as other

predisposing factors for effective intervention based on the PRECEDE-PROCEED model.

**Information sources:** The databases used to search for the published articles were PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, and Scopus; the databases used to search for the gray literature were ProQuest, Regional Information Sharing Systems (RISS), and OpenGrey.

**Main outcome(s):** Health-related outcomes, with behavior, cognitive and physiological health, and quality of life as primary outcomes.

**Quality assessment / Risk of bias analysis:** Quality assessment was performed using the Mixed Methods Appraisal Tool (MMAT).

**Strategy of data synthesis:** We summarized study characteristics, including publication year, country, study design, participants' characteristics, and application of the PRECEDE-PROCEED model. For the meta-analysis, we entered the data into the Comprehensive Meta-Analysis (CMA) version 3.3 program based on each study design and outcome measurement (number of participants, mean, standard deviation, and p-value). The outcomes of the study were addressed using standardized mean difference (SMD) and 95% CI, as well as the p-values of SMDs. To reduce the effect of statistical heterogeneity on the evaluation, we used a random-effects model. Heterogeneity among studies was assessed using I<sup>2</sup> to determine the heterogeneity of studies.

**Subgroup analysis:** Subgroup analysis was not conducted.

**Sensitivity analysis:** This study used a funnel plot to visualize publication bias and asymmetry.

**Language:** English.

**Country(ies) involved:** South Korea.

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**Keywords:** Education; Health behavior; Health promotion; Knowledge; PRECEDE-PROCEED model.

**Contributions of each author:**

**Author 1 - Junghee Kim - Author 1** prepared the first draft and contributed to study conception and design. **Author 1** performed literature screening, data extraction, and quality assessment.

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