INPLASY PROTOCOL

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What do we know about the teaching of model-based practice to future Physical Education teachers? A systematic review of literature

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Review question / Objective: This systematic review intends to provide an updated synthesis of what is known regarding model-based practice development in Physical Education Teacher Education. Specifically, to understand (i) how model-based practice have been taught to future PE teachers; and (ii) directions that future research might follow.

Condition being studied: The development of model-based practice pedagogical and content knowledge in Physical Education Teacher Education (PETE) programs. Given literature has been enhancing that one of the strategies to do that is implement pedagogical models to future physical education teachers, studies focused on the application of pedagogical models in PETE will also be considered.

INTRODUCTION

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METHODS

Participant or population: Students, teachers, or any other stakeholders in the university context with no restrictions regarding sex, age, or physical condition or country.

Intervention: Interventions focused on model-based practice development or implementation in PETE programs.

Comparator: Comparators are not required.

Study designs to be included: Only empirical studies, with no limitations according to the study design.

Eligibility criteria: Inclusion and exclusion criteria were set according to the Participants, Intervention, Comparator, Outcome, and Study design (PICOS) framework. Studies will be excluded if: (i) not published in peer-reviewed international journals; (ii) that do not show the development of model-based practice pedagogical and content knowledge or the application of pedagogical models; (iii) not empirical studies (e.g., opinion articles, reviews, letters, and chapters in books).

Information sources: An automated search in the following eight electronic databases will be performed: Scopus, Web of Science, PubMed, Academic Search Complete, APA PsycInfo, SPORTDiscus, Teacher Reference Center, and ERIC. Boolean operators to search in the article title, keywords and abstract: ("curriculum model" or "pedagogical model" or "instruction* model" or "teaching model" or "sport education" or "direct instruction" or "traditional model" or "teaching games for understanding" or "tactical games" or "game sense" or "play practice" or "step

game approach" or "invasion games competence model" or "peer-teaching" or "cooperative learning" or "student-design games" or "personalized system for instruction" or "inquiry teaching" or "teaching personal and social responsibility") AND ("physical education" or "university" or "college"). This search was conducted by three researchers (R.A., R.M. and M.A.) and any disagreements about inclusion will be discussed with the other three authors until agreement reached (M.A.C, J.C., P.G.). In addition, a manual search in studies' references will also be completed to find other articles that follow the eligibility criteria. Expert on these areas of research (pedagogical models and PETE) will be contacted so they can suggest other articles that can be eligible for inclusion.

Main outcome(s): The development of pedagogical and content knowledge in Physical Education Teacher Education programs.

Quality assessment / Risk of bias analysis: The methodological assessment will be conducted using the Downs and Black checklist (Downs and Black 1998) with a modified version (Simic et al. 2010). The instrument contains 27 items evaluating 5 dimensions: (1) reporting; (2) external validity; (3) bias (intervention and outcome measurement); (4) confounding (cohort selection bias); and (5) power. Guidelines from the Critical Appraisal Skills Programme (CASP, 2018) will also be used specifically to qualitative studies. To assess the research quality of the mixed-methods studies, the Mixed Methods Appraisal Tool (Hong et al., 2018) will be used, which is designed for the appraisal stage of complex systematic literature reviews including qualitative, quantitative, and mixed-methods studies.

Strategy of data synthesis: The initial searching of databases will be exported to reference manager software (EndNoteTM 20.2 for Mac ClarivateTM) and duplicates will be then removed. Articles will be then screened (title, abstract, keywords and full article if necessary) and removed

according to the eligibility criteria. Data synthesis will be performed according to a framework created a priori, which included: (i) study focus, (ii) study design, (iii) participants and context, (iv) data collection, (v) data analysis, and (vi) results. Three authors (R.A., R.M. and M.A.) will perform this data extraction and any disagreements will be discussed and resolved by all authors until agreement reached.

Subgroup analysis: In case of sufficient participants, some subgroup analysis can be done.

Sensitivity analysis: Articles will not be excluded based on low scores, which will only be used to weight confidence in each outcome during synthesis.

Language restriction: No.

Country(ies) involved: Portugal, Ireland and United States of America.

Keywords: Instruction Models, Pedagogical Models, Pre-service Teacher, Teacher Education, Professional Development.

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Author 4 - João Costa.
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Author 6 - Mariana Amaral-da-Cunha.