

INPLASY PROTOCOL

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Empowering and Disempowering motivational coaching climate: a scoping review

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Review question / Objective: The multidimensional model of empowering and disempowering coach climates created by Duda (2013) has a great relevance within the scope of intervention in the context of Sport Psychology. This scoping review of studies summarizes the scientific production about the empowering and disempowering motivational climates created by Duda (2013). The search included the, Web of Science, Scopus, Psycinfo, and Pubmed databases for English, Portuguese and Spanish articles published between 2013 and 2022. A total of 44 studies were found, which 22 were included in the present study. From the 22 studies, 16 were cross-sectional studies, 4 were psychometrics validation studies, 1 concerned a transversal cohort study and 1 concerned a qualitative study. The coach-created Empowering and Disempowering motivational questionnaire (EDMCQ-C) is, the most used and with the necessary psychometric qualities when it comes to assessing the empowering and disempowering motivational climates and their various impacts. We describe results concerning the measurement, antecedents and effects of empowering and disempowering coach climates and future research should invest in the study of empirical evidence that could be added to the existing nomological framework, considering antecedents, development, direct and indirect effects, moderating effects, aggregated effects and qualitative studies.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 January 2023 and was last updated on 19 January 2023 (registration number INPLASY202310067).

INTRODUCTION

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Condition being studied: It is noteworthy that the multidimensional model of empowering and disempowering coach climates created by Duda (2013) has still been little studied, regarding empirical research, however, it proves to be of great relevance within the scope of intervention in the context of Sport Psychology. On the other hand, it was considered the fact that most studies developed in this area are restricted to motivational climates and their impacts anchored separately to the AGT and the SGT, not contemplating per se the multidimensional model of the empowering and disempowering created by Duda (2013) [9] in its entirety.

In this sense, we propose that a summary of existing Empowering and Disempowering motivational climate research in sport would be valuable for sport researchers in determining current trends/gaps in the literature and would inform of the value of assessing the empirical research of this topic in sport contexts.

To this end, the purpose of this research was to broadly examine the Multidimensional Model of the empowering and disempowering motivational climate in the sport literature.

A scoping review framework was determined to be optimally suited for addressing the study purpose. This methodology was selected over other forms of synthesis for a variety of reasons. Firstly, the assemblage of various sources of data can be used to identify trends in the literature and generate new research questions. Secondly, because the investigation of the both empowering and disempowering motivational climate in the context of sport is a topic of great relevance, the inclusion of all forms of evidence will likely broaden the list of publications eligible for inclusion, thus improving the scope of the resulting review. This breadth may also provide coaches and sport psychologists with a more comprehensive overview of the research being conducted in this area and may provide empirically supported guidance about the impact of the empowering and disempowering motivational climate for athletes. Lastly, scoping reviews can be particularly useful when examining the extent, range, and nature of a construct in an area not yet extensively reviewed [29].

A preliminary search for existing scoping reviews addressing the empowering and disempowering motivational climate in sport was conducted prior to beginning the current investigation, however, none were found.

With that in mind, this study sought to systematize, in a clear, objective and methodological way, research on this topic since January 2013 (when this model was developed) to January 2022, through the following criteria:

- 1) Synthesis and description of the main characteristics and results of the studies;
- 2) Portray the different instruments used;
- 3) Formulate reflections on implications for practice and for future investigations.

METHODS

Search strategy: A preliminary analysis of several studies related to the main purpose

of the present study was conducted to identify the most appropriate databases and keywords prior to conduct the search. Considering the study's goal and the range of years included in the present review, several databases were consulted to cover the maximum number of papers. Studies were selected for review in a two-step process. The study authors worked in pairs to review the titles and abstracts in step 1 and then the articles in step 2. When a review pair disagreed about inclusion or exclusion, the team met to discuss and agree.

Thus, an extensive search of scientific papers was conducted from January 1st 2013 until January 31st 2022, from four different databases commonly used in a wide range of recent literature: Web of Science, Scopus, Psycinfo and Pubmed.

There was a document limitation and only articles were consulted. In addition, the bibliography references were also screened to avoid any potential missing articles. The following keywords were used: "empowering motivational climate," "disempowering motivational climate," "empowering coaching" "disempowering coaching," "coaching climate," "empowering sport coaching," "disempowering sport coaching," "athletes," "sports". These were used separately or in different combinations, through the inclusion of "AND" or "OR."

The survey was carried out between the 1st and the 15th August of 2022. The, Web of Science, Scopus, Psycinfo, and Pubmed databases were searched for English, Portuguese and Spanish articles published between 2013 and 2022. To be selected for this re-view, the articles needed to meet the following criteria: (1) no restrictions in terms of studies design were considered; (2) published between January 2013 and August 2022; (3) written in English, Spanish and Portuguese; (4) articles which measure the multidimensional model of empowering and disempowering motivational coaching climate in the context of sports. The exclusion criteria of studies were: (1) systematic reviews; (2) scoping reviews; (3) studies published after August 2022; (4) articles in context of physical activity; (4) articles published in books.

Participant or population: Athletes from collective modalities and sport coaches.

Intervention: The impact of the perception of the empowering and disempowering coaching motivational climate.

Comparator: Not applicable.

Study designs to be included: The scoping review framework described by Arksey and O'Malley (2005) was used as an overall template for this study, but recent advances to the methodology were also considered (Daudt et al., 2013; Pham et al., 2014), to improve overall review quality. The scoping review process involves distinct stages: identifying the research question, identifying relevant studies, study selection, charting the data, collating, summarizing, and reporting the result (Askey and O'Malley (2005)); Levac et al., 2010).

Eligibility criteria: To be selected for this review, the articles needed to meet the following criteria: (1) no restrictions in terms of studies design were considered; (2) published between January 2013 and August 2022; (3) written in English, Spanish and Portuguese; (4) articles which measure the multidimensional model of empowering and disempowering motivational coaching climate in the context of sports. The exclusion criteria of studies were: (1) systematic reviews; (2) scoping reviews; (3) studies published after August 2022; (4) articles in context of physical activity; (4) articles published in books.

Information sources: The survey was carried out between the 1st and the 15th August of 2022. The, Web of Science, Scopus, Psycinfo, and Pubmed databases were searched for English, Portuguese and Spanish articles published between 2013 and 2022.

Main outcome(s): The Duda's conceptualization of the motivational climate proposed "a fuller understanding of the potential impact and determinants of the coach-created motivational climate should emerge when the climate

dimensions emphasized in AGT and SDT are considered simultaneously". From this perspective, the principal purpose behind the development of EDMCQ-C questionnaire was to create a brief, multidimensional scale that measures athletes' perceptions of coaching behaviors comprising overarching "empowering" and "disempowering" motivational climates. In this sense, this study confirms that the EDMCQ-C questionnaire is, par excellence, the most used and with the necessary psychometric qualities when it comes to as-sessing the empowering and disempowering motivational climates and their various impacts. On one side, promoting positive consequences when the coach privileges in his intervention an autonomous, task involving and social supporting climate or by harming the development of the athletes promoting an ego-involving and controlling style climate. That final climate being linked with a self-defeating achievement pattern and negative cognitive and emotional responses.

Additional outcome(s): Future research could focus on different elements to enhance understanding of motivational climates, for example, empirical evidence that could be added to the existing nomological framework, considering antecedents, development, direct and indirect effects, moderating effects, aggregated effects and qualitative studies. We are calling for renewed efforts regarding gathering information about contexts and more details about the process of developing of this process. In this article, we suggested that future research should pay more attention to the culture-specific aspects of empowering climates and the negative effects of disempowering climates.

Prospective studies should highlight the relations between the social dimensions of the empowering and disempowering motivational climate with personal dimensions as passion, persistence, and psychological flexibility, as well as emotional intelligence.

It would also be important to consider studies of a qualitative nature that evaluate

the individual perception of the empowerment felt by the athlete, as well as the processes of building empowerment in a team, depending on the different levels of competition and sport disciplines, in order to better understand the nature of empowerment in the sport context and subsequently promoting a deeper understanding of the impact of the empowering and disempowering climates according to individual, circumstantial and cultural variations.

The list is not meant to be exhaustive. However, we hope this contribution inserts a valuable piece into the whole empowering - disempowering puzzle.

Data management: Initially, data were catalogued and sorted using Endnote XV and Microsoft Excel. Two investigators reviewed each article, with rotation of each pair of reviewers to enhance reliability. Data were summarized and entered into the Excel spreadsheet and organized. Data was extracted by one of the authors using a predefined checklist and was verified and analyzed by two other authors. The following information was extracted: (1) bibliographic information (authors, year of publication); (2) country of the research (3) study design; (4) participants, gender and age; (5) aim of the study; (6) instruments; (7) variables (PA); (8) main results; (9) methodology quality score.

Quality assessment / Risk of bias analysis:

A checklist created by Downs and Black (1998) was used to assess the quality of the studies' methodological content. This instrument consists of 27 questions that seek to determine the study's quality by having in mind several parameters, including study design, adequacy of statistical procedures, clarity of the main conclusions. The Downs and Black checklist have been used in the sports science domain. Two reviewers analyzed the selected studies, and an external reviewer resolved any discrepancies. All reviewers were examined and trained prior to the use the Downs and Black checklist. In the present systematic review, items 13 ("Were the staff, places, and facilities where the patients were treated,

representative of the treatment the majority of patients receive?”), 14 (“Was an attempt made to blind study subjects to the intervention they have received?”), 15 (“Was an attempt made to blind those measuring the main outcomes of the intervention?”)w, and 24 (“Was the randomized intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?”) were not considered, since they were never scored in the papers under analysis. Therefore, the modified scale had a maximum of 23 points from the original one. Finally, no studies were excluded due to low quality assessment score.

Strategy of data synthesis: A total of total of 44 titles were identified as potential papers, after checking in the different databases consulted. Subsequently, 10 of them having been excluded before screening for being duplicated. After the screening phase, 7 records having been excluded based on review titles and abstract, reducing the selection to 27 papers. In to-tal, 4 papers were excluded after the full-text review as they met some of the exclusion criteria (2 articles concerned the context of the physical activity and 2 articles considered not relevant and aligned with the topic research), making the total sample of 22 papers that underwent a thorough analysis.

Subgroup analysis: Not applicable.

Sensitivity analysis: Not applicable.

Language restriction: Other languages than Spanish, Portuguese and English.

Country(ies) involved: Portugal.

Keywords: coaching motivational style; sport psychology; scoping review.

Contributions of each author:

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