

INPLASY PROTOCOL

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None declared.

Effects of a physical exercise program on the quality of life in individuals with intellectual disability: systematic review

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Review question / Objective: The objective of the present study is, through the methodology of systematic review, to identify the benefits in QoL, starting from a PE program in individuals with ID and relate them to the model of Schalock et al. (2002).

Condition being studied: In individuals with ID, characterized by a deficit of intellectual and adaptive functioning in the conceptual, social and practical domains, identified with mild, moderate, severe and profound degrees and develops before 18 or 22 years old (American Psychiatric Association, 2013; Schalock et al., 2010; 2021), measuring QoL allows: i) to understand their degree of satisfaction; ii) understand personal perceptions; iii) support decision-making; iv) evaluate the intervention; v) evaluate theoretical models. This measurement allows us to direct the individual to the life he likes and values (Schalock & Verdugo, 2002). Thus, the objective of the present study is, through the methodology of systematic review, to identify the benefits in QoL, starting from a PE program in individuals with ID and relate them to the model of Schalock et al. (2002).

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 08 November 2021 and was last updated on 08 November 2021 (registration number INPLASY2021110025).

INTRODUCTION

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METHODS

Participant or population: Intellectual disability (ID) is characterized by a deficit in intellectual and adaptive functioning in the conceptual, social and practical domain, being identified with the deep, severe, moderate and mild degrees, developing before the 18 years old.

Intervention: PE program, implemented in the population with ID.

Comparator: Corresponds to the comparison pré and post intervention or between the control and intervention groups.

Study designs to be included: Corresponds to intervention studies, randomized controlled trials, or non-randomized controlled trials and pilot studies.

Eligibility criteria: This systematic review was constructed following the PRISMA checklist items (Moher et al., 2009; Page et al., 2021) and the methodology described by Bento (2014). The PICOS strategy (Methley et al., 2014; Nang et al., 2015) is defined as follows: i) “P” (Patients) participants with ID (Down Syndrome – DS included), of any age, gender, ethnicity or race; ii) “I” (Intervention) PE program, implemented in the population with ID (DS included); iii) “C” (Comparison) corresponds to the comparison pré and

post intervention or between the control and intervention groups; iv) “O” (Outcome) corresponds to QoL as the primary or secondary variable studies; v) “S” (Study Design) corresponds to intervention studies, randomized controlled trials, or non-randomized controlled trials and pilot studies.

Information sources: This systematic review was carried out after a period of exploratory research in order to better understand the topic, enhance this review and to better define the research question and the methodology to be used in the all researches (September 2020 to June 2021 (day 6). On June 7, several researches were carried out, using the Pubmed (all fields), Web of Science and SportDiscus (title, abstract and keywords) databases, considering the maximum recoil period allowed by them and extracted to the EndNote software. Additionally, manual searches were carried out and the reference lists of studies with relevant potential for this systematic review were revised. The following descriptors were used: "Intellectual Disability", "Intellectual Disabilities", "Mental Retardation", "Physical activity", "Exercise", "Training", "Sport" and "Quality of Life", in combination with the Boolean operators "AND" or "OR" and the wildcard "*", as follows: ("intellectual disability" OR "intellectual disabilities" OR "mental retardation") AND ("physical activity" OR exercise* OR training* OR sport*) AND ("quality of life").

Main outcome(s): Corresponds to Quality of Life as the primary or secondary variable studies.

Quality assessment / Risk of bias analysis: The Downs and Black scale (1998), developed to evaluate RCTs (Randomized Controlled Trials), non-RCTs and observational studies, was used to assess the quality and risk of bias of each study. The tool is composed of 27 items, evaluating the main steps in the construction of a study. The methodological quality of the studies was independently assessed by two researchers

(MJ and DM). The results obtained were compared and discussed to reach an agreement. When consensus was not possible, a third researcher was invited to collaborate (AV). The scale's scoring intervals received corresponding levels of quality: excellent (26-28); good (20-25); fair (15-19); and poor (≤ 14).

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Strategy of data synthesis: The focus of the study was focused on the search for articles evaluating the impact of PE programs on the QoL of individuals with ID. The studies selected were reviewed in their entirety by two independent reviewers (MJ and DM). The results obtained were compared and discussed to reach an agreement. When consensus was not possible, a third researcher was invited to collaborate (AV). In a first phase, duplicated articles and by reading the titles and abstracts were excluded. In a second phase, the full text was read, the studies selected for final analysis and, finally, new articles were selected based on manual research. After its extraction, information was described, structured in table 2, namely authorship, year of publication, country, objectives, participants, type of study, assessment instruments, duration of the PE program and training session, frequency weekly intervention, exercises and intensities and main results.

Subgroup analysis: Not applicable.

Sensitivity analysis: Not applicable.

Country(ies) involved: Portugal.

Keywords: Intellectual Disability; Physical exercise; Quality of life; Health.

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