

THE ESCAPE TRIAL FOR OLDER PEOPLE WITH CHRONIC LOW BACK PAIN: PROTOCOL OF A RANDOMIZED CONTROLLED TRIAL

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Background: Low-back pain is one of the most common health conditions worldwide. It is defined as pain below the costal margin and above the inferior gluteal folds. Current guidelines recommend management of chronic health (e.g., low back pain) conditions in older people at primary health care settings using active strategies (e.g., exercise). In non-specific low back pain, high quality evidence supports active strategies for general population. However, the management of non-specific low back pain in older people has been overlooked and evidence is limited to a small number of low powered randomized controlled trials with high risk of bias.

Objectives: The primary outcomes will be pain intensity over the previous week and disability. The secondary outcomes will be: Global impression of recovery; frequency of falls; fear of falling; and Physical Active level.

Methods: This is a prospectively registered, open, two-arm randomized controlled trial comparing the group-based exercise and waiting list. The randomization sequence to our two groups of interest (i.e., group-based exercise or control) will be computer-generated by one of the investigators who will not be involved in the recruitment of participants. The sequence will be blocked (block sizes of 4, 6, and 8, in random order). Allocation will be concealed in sequentially numbered, sealed, opaque envelopes. Participants will be stratified by gender (female or male). The GBE comprises three sessions per week of group-based exercise in a local community center, for 8 weeks. Each group session will consist of 10 to 18 participants and each exercise session will last 60 minutes and consist of four stages: (1) five minutes warm up (i.e., self-regulated walk); (2) twenty minutes of moderate intensity walking; (3) thirty minutes of resistance training for the major muscles of the leg, trunk and arm and balance exercises that progress in difficulty; and (4) five-minute cool down period (i.e., self-regulated walk). Participants randomly allocated to control group will remain on a waiting list. In addition, weekly contact will be made to ensure that they do not start treatment during the study protocol. However, previous treatments like medications will be allowed. The sample size calculation was performed using the G*Power 3.1 software. A sample size of 120 participants was calculated (60 in each group), with a statistical power of 80%, alpha of 5%, and 20% dropout rate. The statistical analysis will be performed following the intention-to-treat analysis principles. Then, considering normal distribution, an analysis of mixed linear models (random intercepts and fixed coefficients) will be conducted, which incorporated terms for treatment, time, and the treatment-time interactions.

Implications: The practice of individualized exercise has been studied for the management of chronic non-specific low back pain in older people. However, the group exercise, even showing high quality evidence for the improvement of several important outcomes in this population, has been ignored until now. Thus, the results of this study have the potential to indicate a viable and accessible strategy for managing chronic non-specific low back pain in older people.

Keywords: Low back pain, Older people, Disability

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CONTENT ANALYSIS OF INFORMATION AVAILABLE ON INTERNET SOURCES ABOUT PLAY ACTIVITIES

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Background: Child development depends on motor and environmental stimuli that can be experienced during play activities. Parents' virtual access to information on how to stimulate their babies through play has been frequent, but the quality of this information should be investigated.

Objective: To verify the type of information available on internet sources about play activities for children up to 1 year of age.

Methods: Content analysis study, which is part of a collaborative study between the University of Brasília (UnB) and the University of Delaware (UD). The same coding protocol developed by a team of specialists in child development and early intervention at the UD was used. This study is a sub-analysis in which only Brazilian sources related to play activities available on the internet for children under 1 year old were included. A search was carried out through the Google site, using the terms: "play activities for babies", "how to play with babies", "play activities" and "babies". The inclusion criteria of the analyzed sources were a) any sources on websites that contained information about play activities for children younger than 1 year of age; b) sources available on the internet. Information regarding the type of source, details of the authors, child's development process and the role of parents in development were extracted and individually coded using Excel by two coders (inter-rater reliability: $M=87.98\%$, $SD=6.2$).

Results: One hundred and fifteen sources were identified, and 100 sources were included. Most sources included were popular websites (52%), followed by professional organization websites (24%). Among the sources included, only 9% mentioned the authors' credentials, 5% mentioned information about the child development process, and 5% about the role of parents in the developmental process.

Conclusion: Most of the sources were from popular websites, and in general, those provided a few or no information related to the authors' credentials (e.g., authors' education and expertise). Content and information about how child development occurs and the importance of parents in child development were found on the minority of websites.

Implications: Parental knowledge can directly impact their children's development. Play websites can be a valuable source of information for parents, but it is extremely important that the information provided is accurate, up-to-date and evidence based.

Health and early childhood education professionals can play an important role in directing parents to reliable sources about play for children under one year old.

Keywords: Child development, Play activities, Content analysis

Conflict of interest: The authors declare no conflict of interest.

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Ethics committee approval: As this was a content analysis, no ethics board approval was required for this study.

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165

PERCEPTION OF HEALTH PROFESSIONALS ABOUT EARLY INTERVENTION SERVICES

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Background: Family-Centered Care is an approach that has been widely used in early intervention (EI) programs. This approach focuses on the child and their family as the central role in all decision-making processes related to health care, with mutual benefits among those involved. However, the implementation of IP services seems to differ across regions and healthcare facilities. Thus, there is a need to characterize the service provided in Brazil from the perspective of health professionals.

Objectives: To verify the perception of health professionals in relation to the service offered in EI.

Methods: The study design is cross-sectional. Health professionals who work in EI programs in Brazil (for at least 3 months) took part in the study. The online questionnaire was developed using Qualtrics software. This questionnaire consisted of multiple-choice questions about socioeconomic and demographic information, professional training, and professionals' perception of family involvement in EI and services. Descriptive analysis was performed.

Results: Twenty-two health professionals (female: n=20; 90.9%) participated in the study, the majority being physical therapists (n=14; 63.6%), and the others speech therapists (n=3; 13.6%), occupational therapists (n=2; 9.1%), psychologists (n=2, 9.1%), and nurse (n=1; 4.5%). Most of them work in a multidisciplinary team (n=19; 86.4%); 12 participants (54.5%) answered that they have less than 10 years of experience and nine (40.9%) that they have more than 10 years of experience in EI. Most answered that they talk about the therapeutic goals with the family (n=21; 95.5%) and that they consider the needs of the family when establishing intervention goals ("always": n=16; 72.7%; and "most of the time": n=5; 22.7%). Regarding the involvement of family members, part of the professionals answered that most family members wait in the waiting room until the end of the session (n=8; 36.4%) during EI care; others answered that the families stay by their side observing the session (n=8; 36.4%), or effectively participate in the session (n=6; 27.3%). More than half of the professionals answered that only half of the families (n=12; 54.5%) are interested in receiving and following orientations in the home environment. Furthermore, professionals reported that they have favorable conditions to provide adequate care to children and their families (n=18; 81.8%) and that they are satisfied with their work environment (n=20; 90.9%).

Conclusion: From the perspective of professionals, most of them have considered the needs of families in the EI. However, they reported that not all families seem to be involved in this process.

Implications: Health professionals seem to consider the family-centered care approach during their EI care. However, they should explore new strategies to involve families more effectively.

Keywords: Family, Health professional, Early intervention

Conflict of interest: The authors declare no conflict of interest.

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Ethics committee approval: Ethics Committee of the Faculty of Ceilândia (CEP/FCE) of the University of Brasília (UnB), with the Certificate of Presentation of Ethical Appreciation (CAAE - 63169122.0.0000.8093).

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166

EVALUATION OF THE PELVIC FLOOR BY NIR SPECTROSCOPY: SYSTEMATIC REVIEW

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Background: The interest in the use of Near Infrared Spectroscopy (NIRS) in functional urology and in the treatment of lower urinary tract dysfunction has mentioned its potential to detect the oxygenation status and hemodynamics of various organs. To assess the function of the pelvic floor muscles (PFM), fundamental for the treatment of urogynecological disorders, measurements related to the kinetics of oxygen recovery during muscle training are still lacking.

Objectives: To analyze the effectiveness of NIRS for assessing MAP.

Methods: Systematic review (PRISMA) carried out in PubMed, Virtual Health Library, Scielo, Cochrane Library, Web of Science, Scopus, PEDro, Clinical Trials and Brazilian Registry of Clinical Trials, systematically searched for studies from 2013 to 2023, combining DeCS/MeSH terms: "Near Infrared Spectroscopy and Pelvic Floor" or "Spectroscopy NIR and Pelvic Floor". Eligibility criteria were adopted: MAP evaluation with NIRS, randomized or non-randomized controlled clinical trials, outcomes and articles in English, Portuguese, or Spanish. And exclusion criteria: overlap, case report or review, incomplete data, and use of NIRS in other muscles. The PEDro rating scale was applied.

Results: Of nine articles, four overlapping articles were excluded, one for not applying NIRS under MAP, one for incomplete data and two reviews. Only one was included and applied to the PEDro scale (score 6). Authored by Macnab et al. (2019), aimed to develop a NIRS interface for measuring kinetic oxygen parameters (PCO) in PFM. This was a single-arm clinical study (Columbia) in a sample of 4 healthy volunteers (mean age 40 years). A transparent speculum containing the NIRS interface, and a standardized sequence of exercises was used. Data from sustained maximum voluntary contraction with analysis of the difference between Oxyhemoglobin and Deoxyhemoglobin (HbDiff) were observed. As a result, they identified a decline in HbDiff from the beginning of the contraction with restoration in recovery. Differences between right and left sides were also observed. The feasibility of monitoring PCO on the right and left sides of the PFM was evidenced. Qualitative verifications confirmed