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

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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

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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

reliable data capture with minimal noise and their chromophore alteration patterns corresponded to those already observed in other voluntary muscles. There are limitations (sample size, use of speculum and unfeasibility of further statistical analyses), however, good quality data were presented with individualized and careful assessment of the muscles submitted to training regardless of the dysfunction.

Conclusion: NIRS has the potential for acquiring information not previously accessible, but it is not yet ready for clinical practice, requiring further studies to explore its potential in providing PCO, currently not available through other means.

Implications: In PFM training, we lack standardized methodologies to quantify strength and resistance measurements, which is a challenge for clinical treatment planning. Obtaining PCO, through NIRS technology, can improve the understanding of PFM dysfunctions and respond to the call for techniques that improve care.

Keywords: NIR spectroscopy, Pelvic Floor Disorders, Functional Performance

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ASSOCIATION BETWEEN "TEXT NECK" AND NECK PAIN IN ADULTS: A LONGITUDINAL STUDY

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Background: "Text neck" is defined by the cervical flexion adopted when using mobile devices. The possible causal relationship between this posture and neck pain is still widely discussed.

Objectives: The aim of this study was to investigate this association.

Methods: It is a longitudinal observational study. The sample consisted of 396 volunteers without neck pain aged between 18 and 65 years. Sociodemographic, anthropometric, lifestyle (level of physical activity, smoking, sleep quality), psychosocial (anxiety, depression, social isolation) and smartphone use issues were assessed using a self-reported questionnaire. Text neck was assessed by measuring the cervical flexion angle of participants standing while typing text on their smartphones, using the cervical range of motion (CROM) device at baseline. Two questions were used to assess the point prevalence and frequency of neck pain one year after baseline: "Did you have neck pain today?" With the following answer options "yes" or "no" and "How often do you have neck pain?", the answer options were "very often", "often", "from time to time", "rarely" and "never".

Results: Of the total, 84% (n=335) of participants completed the one-year follow-up. Neck pain was reported by 10% (n=40) of the sample. The average cervical flexion angle of the standing participants using the smartphone was 34° (SD=12). Multiple logistic regression analysis showed that participants' neck flexion angle while standing using a smartphone was not associated with neck pain (OR = 1.01; 95% CI: 0.98-1.04; p=0.64) or frequency of neck pain (OR = 1.01; 95% CI: 0.99-1.03; p=0.44) one year after baseline. Of the potential confounders, sleep quality was associated with neck pain (OR = 1.76; 95% CI: 1.18−2.62; p=0.006) and frequency of neck pain (OR = 1.53, CI 95 %: 1.19−1.96; p=0.001). When compared to active participants, insufficiently active participants increased the chances of neck pain (OR = 2.42; 95%CI: 1.04−5.63; p=0.04).

Conclusion: "Text neck" was not associated with neck pain or frequency of neck pain in adults.

Implications: These results challenge the belief that poor neck posture while using smartphones leads to neck pain and may help mitigate the impact of negative information on the cervical spine.

Keywords: Neck pain, Posture, Text neck

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ANALYSIS OF ANXIETY INVENTORY SCALE FOR RESPIRATORY DISEASES (RAI) FOR INDIVIDUALS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Background: Anxiety is a frequent comorbidity in patients with Chronic Obstructive Pulmonary Disease (COPD) and with important repercussions, such as functional impairment, decreased quality of life and adherence to treatment, and increased risk of hospitalization. In this context, the Anxiety Inventory for Respiratory Diseases (AIR), the only instrument specifically developed to investigate anxiety symptoms in this population, was cross-culturally adapted for use in Brazil. Still, the measurement properties of the face-to-face version have not yet been investigated.

Objectives: To investigate the internal consistency, test-retest and inter-rater reliability, convergent and divergent validity of the face-to-face AIR in patients with COPD.

Methods: This is a cross-sectional methodological study. On the first day, after signing the Free and Informed Consent Form, the Mini-Mental State Examination, the sociodemographic and clinical questionnaire were applied, and anthropometric data were collected, followed by spirometry. Subsequently, patients answered the Modified Medical Research Council (mMRC), the COPD Assessment Test (CAT), the AIR, the Hospital Anxiety and Depression Scale (HADS), the Beck Anxiety Inventory (BAI), and the London Chest Activity of Daily Living (LCADL). To determine the test-retest and inter-rater reliability of the IAR, seven days after the first application of the questionnaire, the leading researcher reapplied the scale with a control form via telephone contact, and a second rater contacted patients 48 hours later. The internal consistency of the AIR was measured using Cronbach's alpha and reliability using the Intraclass Correlation Coefficient (ICC). Spearman's correlation test (rho) was used to determine validity (p<0.05).

Results: Twelve individuals [7 female, age 60.5 (min. 53.7-max.70.8) years] participated in the study; nine were included in the test-retest reliability analyses and eight in the inter-rater reliability. For internal consistency, Cronbach's α was 0.94. For test-retest reliability, the ICC was 0.73; for inter-rater reliability, it was 0.88. Regarding convergent validity, significant correlations of high magnitude were observed between the AIR and the HADS anxiety domain (rho = 0.82), depression domain (rho = 0.87), and the total score (rho = 0.79), and of moderate magnitude between the AIR and the BAI (rho = 0.70). For divergent validity, non-significant