

Background

In this presentation we will feature the process of building cultural competence in nursing, from the study of the clinical practice with immigrants in primary health care contexts, in Portugal.

Methods

We developed an inductive study of ethnographic orientation, with participant observation; analysis was developed of discursive material of ethnobiographical interviews and narratives of 52 nurses and immigrants, and two focus groups with these different types of participants – at different moments.

Results

We identified difficulties in cultural contextualization of people cared for by nurses, more visible at the level of knowledge of particularities in the communication process, in the use of family members as interpreters, diversity of religious beliefs and about health and illness, roles and socio-familial control.

Conclusions

Regardless of the individual motivation of nurses to care for immigrants, they have the capacity for adequate management of unpredictability in cultural encounters. This management emerges as a central element of the professional development and of the construction of cultural skills – in a gradual distancing of nurses from their own ethnocentrism. However, the management of unpredictability is made especially with an "advance" for initial assessment and care planning, in accordance with the professional standards and dominant organizational culture, and sometimes there is a cultural misfit. The management of unpredictability in successive moments promotes adjustments in clinical practice with immigrants; it occurs together with a process of awareness by professionals, exploring how to experience the health-illness transitions in different ways.

Keywords

Cultural competency, Nurses, Immigrants, Clinical practice

Health Instruments & Indicators

O137

Paediatric speech and language screening: An instrument for health professionals

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Background

To develop and validate a speech and language screening instrument (Rastreo de Linguagem e Fala, RALF), which aims to quickly identify children who may be at risk of a speech-language disorder and need to be referred to a detailed speech and language assessment.

Methods

A sample of 203 Portuguese children (n = 109 males, 94 females) aged 3.0 to 5.11 were recruited. 133 presented a typical language development and 70 a primary language disorder. Speech-language assessments and diagnostics were performed by a licensed and certified speech and language therapist. Subject selection criteria for disordered children included: I) language score below -1.5 SD, the mean of the Language Test-ALPE (Teste de Linguagem – TL-ALPE), a standardized language instrument; II) speech sound disorder identified through a spontaneous speech sample; III) absence of another condition such as hearing impairment, emotional or behavioural difficulties, autism, neurological impairment or general developmental difficulties. RALF and TL-ALPE's scores were crossover. Sensibility as well as specificity were calculated for three age groups (3, 4 and 5 years).

Results

Sensibility values were 95 %, 96 %, 83 % and specificity values were 85 %, 84 % 71 % (for 3, 4 and 5 age groups, respectively). Results revealed that RALF was able to discriminate typically developing children from disordered speech-language developing children.

Conclusions

RALF is a valid instrument that can be used by health professionals to assist on the screening and identification of children who may need a speech and language detailed assessment.

Keywords

Screening, speech and language development, validity, children

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Anthropometric and nutritional assessment in bodybuilders

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Background

In sport, nutrition must ensure a supply of nutritional requirements, to provide sufficient calories to supply the high energy costs associated with daily sports, either in training or in competition. They must deal with the high nutritional requirements of the athletes, promoting and maintaining a high level of physical and mental welfare, so that the athlete can engage in his sports discipline.

The aim of this study is to characterize the nutritional habits and body composition of bodybuilding practitioners in order to obtain muscle hypertrophy.

Methods

These individuals were selected from the gyms of São Martinho do Bispo, in Coimbra. The sample was composed by 17 male athletes, aged between 19 and 39 years. Nutritional assessment was performed using the food frequency questionnaire (FFQ), supplied by the Department of Hygiene and Epidemiology, Faculty of Medicine of Porto, and also by the 24-hour questionnaire. Body composition was determined through skin folds, weight, waist circumference and height of the individual.

Statistical analyses were performed using the SPSS statistical programme (Statistical Package for the Sciences), version 19.0.

Results and conclusions

Data analysis concluded that athletes have a high protein intake with a low consumption of carbohydrates. However, they have an energy and fat intake within the range recommended by the literature.

Keywords

Nutrition, sports, bodybuilding, hypertrophy

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Computerized adventitious respiratory sounds in children with lower respiratory tract infections

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Background

The objective assessment of lower respiratory tract infections (LRTI) in children is challenging. Computerized adventitious respiratory sounds (ARS) are valuable to assess adult respiratory diseases; however, its application in children with LRTI is unknown. Objective: This

cross-sectional study explored ARS potential to identify a LRTI and monitor its severity in children aged less than years.

Methods

Twenty-two (22) children aged ≤ 2 years (G1: 11 healthy; G2: 11 LRTI) and 18 aged 3-5 years (G3: 9 healthy; G4: 9 LRTI) were recruited from three healthcare institutions. Respiratory distress was assessed with the modified Wang Score. Computerized respiratory sounds were recorded following the international guidelines. Wheeze (occupation rate and frequency) and crackle (mean number and two cycle duration -2CD) parameters were analysed per respiratory phase using developed algorithms. Comparisons were established using Mann-Whitney and correlations with Spearman's tests.

Results

Children with LRTI presented a higher expiratory wheeze occupation rate [G1: 2.15 (1.67-3.11) vs. G2: 4.73 (2.59-9.31) $p=0.001$; G3: 2.80 (1.89-5.16) vs. G4: 5.17 (2.64-18.63) $p=0.07$] and more inspiratory crackles [G1: 0.25 (0.14-0.44) vs. G2: 0.52 (0.22-0.92); $p<0.001$; G3: 0.50 (0.25-0.72) vs. G4: 0.70 (0.33-1.55) $p=0.03$] than healthy children. No differences were found for other ARS parameters. Moderate to strong correlations were found between ARS and children's respiratory distress ($0.35 < r < 0.51$; $p < 0.05$).

Conclusions

Wheeze occupation rate and mean number of crackles were the parameters that most differed between healthy children and children with LRTI and that most correlated with the respiratory distress score. Those parameters may be useful to objectively diagnose and monitor children with LRTI.

Keywords

Lower respiratory tract infections, computerized respiratory sounds, paediatrics

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Role of computerized respiratory sounds as a marker in LRTI

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Background

Computerized respiratory sounds, especially adventitious respiratory sounds (ARS), have been increasingly used to monitor lower respiratory tract infections (LRTI). Although this measure has shown to be reliable in patients with stable chronic diseases, its variability and reliability in acute conditions is unknown. This cross-sectional study assessed the variability and reliability of computerized respiratory sounds in patients with LRTI.

Methods

Ninety-seven patients with LRTI (57 females; 54.82 ± 17.18 years) were recruited from one central hospital. Three repeated respiratory sound recordings were taken simultaneously from seven anatomical locations. Normal respiratory sound (NRS) intensity, mean number of crackles and wheeze occupation rate (Wh%) were analysed with validated algorithms. Intra-subject reliability was assessed with the intra-class correlation coefficient (ICC 1.3) and Bland-Altman plots. Inter-subject variability was assessed with the coefficient of variation (CV).

Results

Relative reliability was moderate to excellent for NRS intensity and mean number of crackles ($0.42 < ICC < 0.80$), except at trachea ($0.29 < ICC < 0.74$), and poor to excellent for Wh% ($0.18 < ICC < 0.86$). Absolute reliability demonstrated no systematic bias between measures. Inter-subject variability was acceptable for NRS intensity ($14 \% < CV < 25 \%$) and high for crackle and wheeze parameters ($49 \% < CV < 211 \%$).

Conclusions

NRS intensity seems to be the most reliable marker to monitor patients with LRTI. More research is needed with controlled flows

and volumes to confirm these results since NRS are always produced during breathing whilst ARS are superimposed events on NRS hence, timing may not be perfectly repeatable from breath to breath.

Keywords

Computerized respiratory sounds, lower respiratory tract infections, variability, reliability

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Confirmatory factor analysis of the Personal Wellbeing Index in people with chronic kidney disease

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Background

The Personal Wellness Index/Satisfaction with life in general (PWI/SLG) is a questionnaire designed to measure subjective well-being (SWB). The PWI was based on the Comprehensive Quality of Life Scale [1] and is validated for the Portuguese population [2]. Objective: To confirm the unifactorial structure of the "Personal Wellbeing Index" in people with chronic kidney disease (CKD) on hemodialysis.

Methods

The random sample included 159 people with CKD on hemodialysis in a Nephrology Service and two clinics in the region of Lisbon, Portugal. Data collection was carried out between March and June 2015. The AMOS software was used for a confirmatory factor analysis (CFA), with the maximum likelihood method. The adjustment ratios were used: ratio Chi Square and the degrees of freedom (X^2/gf); goodness-of-fit index (GFI); comparative fit index (CFI), Tucker-Lewis index (TLI) and root mean square error of approximation (RMSEA) [3-4].

Results

The results of this study [$X^2/df = 1.871$; $GFI = 0.96$; $CFI = 0.97$; $TLI = 0.95$; $RMSEA = 0.07$] show a good fit to the hypothesis of the solution of a factor, which confirms the solution proposed in the original version [1] and the Portuguese version [2].

Conclusions

The Portuguese version of "Personal Wellbeing Index in people with CKD has a single factor. The personal well-being Index or satisfaction with life in general is suitable for measuring the impact of interventions in nursing in people with CKD.

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Keywords

Renal Insufficiency Chronic, Renal Dialysis, Quality of life, Validation studies, Psychometry