



## PARALLEL SESSIONS: ORAL COMMUNICATIONS

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## 1. ADULT HEALTH

### CHARACTERIZATION OF PATIENTS UNDERGOING NONINVASIVE VENTILATION ADMITTED IN UNIT INTERMEDIATE CARE

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**Introduction:** Non-invasive ventilation (NIV) is the application of a ventilatory support without resorting to invasive methods. Today it's considered a credible therapeutic option, with enough scientific evidence to support its application in various situations and clinical settings related to the treatment of acute respiratory disease, as well as chronic respiratory disease.

**Objectives:** Characterize patients undergoing NIV admitted in Unit Intermediate Care (ICU) in the period from October 1<sup>st</sup> 2015 to June 30<sup>th</sup> 2016.

**Methods:** Prospective study conducted in ICU between October 2015 and June 2016. In this study were included all patients hospitalized in this unit (ICU) and in that time period a sample of 57 participants was obtained. As data collection instruments we used a questionnaire for sociodemographic and clinical data and the Braden scale.

**Results:** Participants were mostly male 38 (66.7%), the average age 69.5 ± 11.3 years, ranging between 43 and 92 years. They weighed on average 76.6 kg (52 and 150), with an average body mass index of 28.5 kg/m<sup>2</sup> (20 to 58.5). With skin intact 28 (49.1%) with abnormal perfusion 12 (21.1%), with altered sensitivity 11 (19.3%) and a high risk of ulcer on the scale of Braden 37 (65%). The admission diagnosis was respiratory failure 33 (57.3%) and had different backgrounds. We used reused mask 53 (93.0%), the average time of NIV was 7.1 days (1-28), 4.8 days of hospitalization (1-18) and an average of 7.8 IPAP pressure. 11 (19.3%) of the participants developed face ulcer pressure.

**Conclusions:** The NIV is used in patients with advanced age, obesity, respiratory failure and high risk of face ulcer development.

**Keywords:** Patients. Noninvasive ventilation.

### TELEPHONE SUPPORT LINE OF RHEUMATOLOGY DEPARTMENT: A 4.5 YEARS EXPERIENCE

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**Introduction:** In many health services in developed countries, the telephone support has been used as an innovative approach to providing care and answering questions by nurses, developing especially in specific areas such as rheumatology (Brown et al., 2006).

**Objectives:** To analyze the profile of users and the main reasons of patients that uses the Telephone Support Line of Day Hospital and early arthritis consultation of the CHUC Rheumatology Department, EPE.

**Methods:** This is a retrospective descriptive-correlational study with a convenience sample of 448 calls. For continuous variables we used the t-student test, for dichotomous variables the  $\chi^2$  test and, finally, we performed a cluster analysis by the TwoStep Cluster method through the log-likelihood distance.

**Results:** Users have an average age of 44.8 years being predominantly male (58%). The cluster analysis allowed to create three groups whose profile shows that the cluster 1 (n = 96/21.4%) are formed by "older" adults that need to clarify mainly doubts about the results of auxiliary examinations tests (AET)/prescriptions and side effects/complications; the cluster 2 (n = 232/51.8%) are formed by young adults that call to change appointments and mainly to clarify doubts on the results of AET/prescriptions; finally, the cluster 3 (n = 120/26.8%) are formed by "middle age" adults that want to clarify doubts about medication and disease management.

**Conclusions:** Incoming calls cover a wide range of ages and all kinds of rheumatic diseases. This study allows us to identify in which groups it is necessary to make a more detailed educational

intervention related to medication, disease management and secondary effects/complications.

**Keywords:** Hotlines. Nursing. Education. Rheumatology.

### THE IMPORTANCE OF VIDEODEFECOGRAPHY IN DEFECATORY DISORDERS IN ORDER TO IMPROVE THE QUALITY OF LIFE OF PATIENTS

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**Introduction:** Defecatory disorders are a group of high-prevalence diseases, involving major morbidity with a strong impact on the life of patients. It is emphasized the importance of effective diagnosis.

**Objectives:** To assess a simple technique that can be extremely helpful in the diagnosis of defecatory disorders, as well as if there was any medico-surgical follow-up based on this exam.

**Methods:** This was a retrospective study (from July 2014 to June 2015) from a Portuguese University Hospital's Imagiology Department. It included a review of patients who made this exam in this period and analysed the medico-surgical follow-up available in the hospital digital system.

**Results:** Videodefecography is a dynamic contrast study, which uses a barium paste introduced into the rectum with subsequent evacuation in a sitting position. It is a simple technique, painless and with great cost-effectiveness, that allows the assessment of morphological and functional disorders of the anorectal area and pelvic floor. We found that in a one-year period, 149 videodefecographies were made by conventional radiography, which resulted in 26% of the patients having medical-surgical treatment on this context, 38% of them did not present any disorders on their exams and were excluded from this study, and we did not had clinical access to the records of the remaining patients.

**Conclusions:** The results demonstrate that many patients were treated based on the findings of this examination, reinforcing the importance of videodefecography in the study of defecatory disorders. In fact, a correct diagnosis is crucial for an effective medico-surgical approach.

**Keywords:** videodefecography. Defecatory disorders.

### THE INTERVENTION OF REHABILITATION NURSES IN ELDERLY PATIENTS WITH PROXIMAL FEMUR FRACTURE

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**Introduction:** The rehabilitation nurse plays a key role in promoting and maintaining the health of the elderly, guided by direct assistance at various levels of complexity, complexity, where the elderly/family/community has its role preserved, and the main goal is that the elderly regain their functional independence as early as possible.

**Objectives:** The aim of this study is to evaluate the functional independence of the elderly with proximal femur fracture with the intervention of rehabilitation nurse.

**Methods:** The study carried out is of the "Quasi experimental" taking a quantitative approach was made. For this study we used the Barthel Index, complemented with a sociodemographic questionnaire. Data collection took place between May and July 2013.

**Results:** The study sample consisted of 80 participants with proximal femur fracture, of which 40 had intervention of rehabilita-

tion nurse and 40 had no intervention of rehabilitation nurse. The results of the study showed that the intervention of rehabilitation nurse contributed to a greater functional independence ( $p = 0.001$ ) as well as in power dimensions ( $p = 0.022$ ), body care ( $p = 0.041$ ), use the bathroom ( $p = 0.001$ ), climb stairs ( $p = 0.001$ ), transfer chair/bed ( $p = 0.001$ ) and ambulation ( $p = 0.001$ ) for the elderly without the intervention of rehabilitation nurse.

**Conclusions:** In the group of elderly people with femoral neck fracture, which was targeted for intervention specialist nurses/specialized in rehabilitation, there was an increase in functional independence it helps thus for effective management of care and services provided to these people.

**Keywords:** Proximal femur fracture. Nurse rehabilitation. Functional independence. Barthel index.

### EFFECTIVENESS OF COMPRESSION THERAPY OF SHORT TRACTION ON VENOUS LEG ULCERS TREATMENT

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**Introduction:** Leg ulcers are a major health problem that affects the users' quality of life. Despite being consensus in the literature that the use of compression therapy is the best treatment there is still discussion about the efficacy of different types of compression (O'Meara, Cullum, & Nelson, 2009).

**Objectives:** To describe the effectiveness of compression therapy of short traction on venous leg ulcers treatment.

**Methods:** We perform a retrospective descriptive correlational study from a non-probabilistic convenience sample (with strict inclusion criteria) with 30 users of a primary care clinic and the medical records were collected from January 2013 to May 2016. A local treatment protocol to the wound was established and applied a sociodemographic and clinical questionnaire, the Pressure Ulcer Scale for Healing (PUSH) and the Visual Analogue Scale (VAS) of pain. Descriptive and inferential statistics were performed with SPSS 21.0.0.

**Results:** Users had a mean age of  $73.7 \pm 10.6$  years, 56.7% were female and 43.3% male. It was found that prior to treatment only 40% of users had been treated with compression therapy and 50% with the principles of 'wet environment'. After initiating compression therapy the 6 weeks healing rates are 56.7% and at 12 weeks 86.7%. It was also found that there is a highly significant reduction in pain after 4 weeks of treatment with compression therapy ( $MR = 65.50$ ;  $z = -2.55$ ;  $p = 0.01$ ); and that only occurred 7 recurrences (23.3%).

**Conclusions:** Compression therapy is assumed as the gold standard treatment of venous leg ulcers, reducing the healing time, recurrence rates and pain. Some of the indicators found are worrying because they indicate a reduced application of compression therapy and of the basic principles of wound treatment.

**Keywords:** Leg ulcer. Compression bandages.

### COMMUNITY ACQUIRED PNEUMONIA IN A HEALTH CARE CENTER IN VISEU - CASUISTRY OF 3 YEARS

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**Introduction:** Community Acquired Pneumonia (CAP) is a major cause of morbidity, mortality and resource consumption worldwide. Its early detection can prevent a potentially fatal outcome.

**Objectives:** Identify and characterize the population of a Health Care Center (HCC) diagnosed with Pneumonia in the last 3 years.

**Methods:** Observational, descriptive and retrospective study. Target population: users enrolled in HCC with Pneumonia between 01/2013 and 12/2015. Data collection: clinical process. Study variables: gender, age, comorbidities, smoking, anti-pneumococcal vaccination, date of diagnosis, symptoms duration, physical examination, radiological control, place and type of treatment, recurrence. Data collected through SClínico® and PDS® and processed in Excel®.

**Results:** 131 patients were studied, of which 51.1% were female (mean age 58.3 years). 50.4% had comorbidities. Most were non-smokers (84.7%) and had no pneumococcal vaccination (88.5%). January was the most frequent month of diagnosis (19.1%) and the majority of diagnoses occurred in 2015 (37.4%). 55.7% (n = 73) of patients resorted first to family physician (FP); of these, 72.6% had productive cough and the mean time of evolution was 9.6 days. 95.9% had altered auscultation. Chest radiograph was ordered to 16.4%. 38.4% received outpatient treatment, with amoxicillin/clavulanic acid being the most prescribed therapy (46.4%). 61.6% were sent to emergency department. 4.1% of patients returned to FP.

**Conclusions:** Once established the diagnosis, an initial assessment is required to determine the best treatment place. The FP is in a prime position to optimize the initial approach and follow-up of patients. The focus on the identification of risk factors and improving adherence to vaccination could play a crucial role.

**Keywords:** Community acquired pneumonia. Diagnosis. Treatment.

### COMBATING PROBLEMS RELATED TO ALCOHOL: INTEGRATED INTERVENTION PROJECT IN THE PAREDES DE COURA COUNTY

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**Introduction:** According to the WHO, in 2013, alcohol was a major factor in non-transmissible diseases, with an impressive impact on people's health. Portugal ranks second place in European countries with high levels of consumption. Despite the lack of recent data, indirect indicators (hepatic ailments and the following up of families in risk) make this problem a priority in the Alto Minho region. It is important to act early on and in an integrated way, severancing treatment and collateral damage approaches.

**Objectives:** To implement an integrated intervention project and fight problems related to alcohol in the Paredes de Coura County, Viana do Castelo.

**Methods:** All phases of the project are co-developed by City Hall, Schools, Health Center, Social Solidarity Institutions and IDT. The intervention will take place in five axis: Care giving (Family Health and realization of AUDIT, Implementation of the program "Me & Others" with the neighborhood School); Management of the Care (USF/UCC Circuit, preparation of Manuals and Procedures); Suitableness of the information systems, Formation and Communication and Revelation.

**Results:** Main results: Formation for teachers to implement the program "Me & Others" and for health professionals concerning brief interventions; Working team to combat problems related to alcohol; defined indicators. The contract negotiation for indicators is pending.

**Conclusions:** An integrated approach to the problems related to alcohol has begun, structured in a salutogenic paradigm and in abottom-up logic. Therefore, conditions to monitor this asset in public health has been launched.

**Keywords:** Problems related to alcohol. Integrated intervention model.

### NONSTEROIDAL ANTI-INFLAMMATORY DRUGS: USE IN HIGHER EDUCATION STUDENTS

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**Introduction:** Nonsteroidal anti-inflammatory drugs (NSAIDs) are one of the most consumed drugs worldwide, by different age groups.

**Objectives:** The present study aimed to characterize the NSAIDs consumption in students of Polytechnic Institute of Bragança (IPB). **Methods:** A descriptive and cross-sectional study was performed from September 2014 to June 2015, through application of a questionnaire to 563 students of IPB. The sample was composed by 67% female students and 33% male students with ages of  $21,9 \pm 4.1$  years and 62.3% consider their health as good.

**Results:** This study showed an high prevalence of NSAIDs consumption in students of IPB (93.3%). The drug most reported was ibuprofen (95.8%), following by acetylsalicylic acid (39.0%), diclofenac and nimesulide (36.4 e 16.8%, respectively). Pain and inflammation were main reasons for its consumption (76.4% and 55.8%, respectively) and the oral administration, the most used route of administration (99.4%). A high proportion of students assumes a correct use of NSAIDs, taking the drugs during or after a meal (89.0%) and during a period of time between one to five days (86.3%). It was reported a low rate of adverse events among students (95.0%) and the majority has considered the consumption of NSAID beneficial to health (59.6%).

**Conclusions:** The present study contributes to knowledge of the profile of use of this group of drugs in young adults.

**Keywords:** NSAIDs. Use. Higher Education students.

### PROBIOTICS AND SYMBIOTIC: WHAT IS THE PRESENT EVIDENCE AND APPLICABILITY?

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**Introduction:** The intestine contains extensive flora that includes several species of bacteria. The main intention of using probiotic and symbiotic is to help this intestinal flora in unbalanced situations or disease.

**Objectives:** To review the evidence associated with the use of probiotics and symbiotics.

**Methods:** A literature research was carried out in the appropriate databases of randomized, controlled clinical trials, systematic reviews and guidelines, published in the last decade, both in English and Portuguese.

**Results:** The benefits of probiotics may be divided into: nutritional; barrier, restoration and antidiarrheal effect; cholesterol reducer; stimulation of the immune system; reducing inflammatory/allergic reactions; anticarcinogenic effect. Studies have documented this effect in a range of gastrointestinal and extraintestinal disorders, including: inflammatory bowel disease, irritable bowel syndrome, vaginal infections; as an immune booster; part of the treatment for dysbiosis associated with antibiotics; potential anti-inflammatory; moderate visceral afferent hypersensitivity relieving intestinal symptoms; increase survival of preterm

infants; be related to atopic eczema and liver cirrhosis complications.

**Conclusions:** The role of intestinal bacterial flora remains a subject of debate. There is already evidence that this imbalance can have multiple manifestations. The exact probiotic mechanism of action has not been fully understood, but experts assume that these agents act as competitive inhibitors of pathogenic strains, replacing them. In general, there is strong clinical evidence that their use can benefit the health of the intestine and stimulate immune function.

**Keywords:** Probiotic. Symbiotic. Gut. Immunity.

### SCREENING PROGRAM OF COLORECTAL CARCINOMA: A PRACTICE REPORT OF A HEALTH UNIT FAMILY

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**Introduction:** According to the World Health Organization (WHO), colorectal carcinoma (CRC) is the 3<sup>rd</sup> cause of death from cancer worldwide, followed by lung and stomach cancer. In Portugal, the CRC is the cancer with greater impact in mortality and morbidity. The knowledge of its natural history, combined with the existence of curative treatment and early diagnosis increases overall survival which reveals the importance of screening programs in target populations.

**Objectives:** To show the practice and relevance of an economic program of the CRC screening.

**Methods:** The Screening Program of CRC in the central region of Portugal, consists in the application of the fecal occult blood test (FOBT), bi-annually, to patients between 50 and 70 years, with referral of patients whose test is positive to colonoscopy. Secretary selects the patients and make the appointment. On the day of consultation, the nurse meets with patients and teaches them about the methods to correctly collect the stool and how they should eat during those days. The family doctor explains the purpose of screening and performs a questionnaire through SiiMA<sup>®</sup> computer program. In the end, FOBT kit (Haemocult<sup>®</sup> Kit) is delivered.

**Results:** This program in 2015 allowed 51.7% of the patients to be screened. For the year 2016, it was contracted to 65% of the indicator. All positive results of screening have been referred for colonoscopy.

**Conclusions:** After cervical cancer, the CRC is potentially the cancer more susceptible of prevention. The growing participation of patients to screening, in part by the convenience of that procedure, may be reflected in a decrease in the incidence and mortality of CRC in the target group covered by screening.

**Keywords:** Secondary prevention. Colorectal carcinoma.

### EMOTIONS OF NURSES WITH THE CHILD END OF LIFE

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**Introduction:** The process of death and dying has always been the subject of much speculation and interest for the man since it involves feelings and emotions. However, it is in the hospital, and especially to the nurse who works with children, that this issue becomes more challenging as these professionals may have to face children at the end of their lives, in their everyday work. Costa and Lima (2005), recommended the subject of death in children to be included in the curricula and that hospitals use permanent

education as a strategy for promoting and changing attitudes and behaviors of professionals.

**Objectives:** Identify the factors that influence the nurse emotions when dealing with the child at the end of life. Identify what kind of emotions and emotional support nurses and caregivers have and require in the child's end of life process.

**Methods:** Descriptive study, quantitative and cross. A questionnaire to four hospitals in the inner edge nurses was applied in services that had direct contact with children (Pediatrics, Pediatric Emergency, Outpatient and Neonatology).

**Results:** The study revealed that nurses experience varied discomforting emotions more than comforting emotions.

**Conclusions:** Gender, age, religion, professional practice time, professional practice time in the field of pediatrics, professional category, the service which perform functions and the type of support, contrary to what we predicted, are not factors influencing the emotions of nurses dealing with the child at the end of life. As far as the support they need, they emphasize psychological support. We identified five dimensions of emotions called lack of hope; internal conflict; empathy; affections; mood.

**Keywords:** Emotions. Death. Pediatrics Nurse.

### CORRELATION BETWEEN ANTIDIABETIC MEDICATION ADHERENCE AND TYPE 2 DIABETES CONTROL IN AMBULATORY PATIENTS

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**Introduction:** Patients suffering diabetes mellitus have to medication to control their disease. Thus, patients' medication adherence can influence diabetes control.

**Objectives:** To determine the association between antidiabetic medication adherence and type 2 diabetes control in ambulatory patients, measured with a self-reported instrument.

**Methods:** A 3-month cross-sectional study was carried out in 10 urban pharmacies of Coimbra district. Patients older than 18 years, treated with non-insulin antidiabetic medication and diagnosed with type 2 diabetes for more than 12 months were invited to participate. Medication adherence was measured by using the 8-item Morisky Medication Adherence Scale (MMAS-8), establishing three levels of adherence: low (score < 6), medium (6 ≤ score < 8), and high (score = 8). The glycated haemoglobin (HbA1c) was measured with COBAS B 101, establishing the therapeutic target in 7%. Pearson correlations were performed between HbA1c values and MMAS-8 scores. HbA1c values obtained among the three adherence levels were compared by ANOVA with Bonferroni post-hoc test.

**Results:** The 154 patients included were 70.9 ± 9.74 years old and 54.5% were female. The mean HbA1c value was 6.6% (95%CI 6.5-6.8). A significant correlation (p = 0.008) was found between HbA1c values and MMAS-8 scores (Pearson r = -0.214). There were significant differences among patients' HbA1c values within the three adherence levels (p = 0.021), with HbA1c values of 6.9% (95%CI 6.3-7.4) for low adherence, 6.9% (95%CI 6.5-7.2) for medium adherence, and 6.4% (95%CI 6.3-6.6) for highly adherent.

**Conclusions:** Antidiabetic medication adherence evaluated by MMAS-8 is a predictor variable of therapeutic success in type 2 diabetic patients.

**Keywords:** Glycated haemoglobin. Medication adherence. Type 2 diabetes.

### CORRELATION BETWEEN BELIEFS ABOUT MEDICATION AND TYPE 2 DIABETES CONTROL IN AMBULATORY PATIENTS

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**Introduction:** Patients with diabetes have to take chronic medication to keep their disease under control. Patients' beliefs about medicines could influence diabetes control.

**Objectives:** To determine the association between beliefs about medication and control of type 2 diabetes in ambulatory patients.

**Methods:** A 3-month cross-sectional study was carried out in 10 urban pharmacies of Coimbra district. Patients older than 18 years, treated with non-insulin antidiabetic medication, and diagnosed with type 2 diabetes for more than 12 months were invited to participate. Beliefs about medication were measured by the Portuguese version of the Beliefs about Medicines Questionnaire (BMQ-Specific). The glycated haemoglobin (HbA1c) was measured with COBAS B 101. Patients were considered controlled with HbA1c 7% or lower. Pearson's correlations were performed between HbA1c values and the difference between BMQ Necessities and Concerns scores (BMQ-NC), the Necessity score (BMQ-N), and the Concern score (BMQ-C). BMQ-NC, BMQ-N and BMQ-C scores were compared for diabetic controlled and uncontrolled patients (t-test).

**Results:** The mean age of the 154 patients included was 70.9 ± 9.74 years and 54.5% were female. The mean HbA1c value was 6.6% (95%CI 6.5-6.8). The mean scores were: BMQ-NC = 2.5 (95%CI 1.7-3.3), BMQ-N = 21.6 (95%CI 21.1-22.1) and BMQ-C = 19.1 (95%CI 18.3-19.9). No correlation was found between HbA1c and BMQ-NC ( $p = 0.572$ ), neither with any of the domains (BMQ-N  $p = 0.882$  e BMQ-C  $p = 0.483$ ). No difference was found among controlled and uncontrolled patients in the BMQ-NC ( $p = 0.250$ ), BMQ-N ( $p = 0.637$ ) and BMQ-C ( $p = 0.122$ ) scores.

**Conclusions:** Beliefs about medication were not predictors of type 2 diabetes control as measured by HbA1c values.

**Keywords:** Beliefs about medicines. Glycated haemoglobin. Type 2 diabetes.

### CORRELATION BETWEEN PATIENT'S KNOWLEDGE ABOUT DIABETES AND TYPE 2 DIABETES CONTROL IN AMBULATORY PATIENTS

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**Introduction:** The influence of patients' knowledge is frequently mentioned as a predictor for disease control. Type 2 diabetes is a candidate condition to test this hypothesis.

**Objectives:** To identify the association of diabetic patients' knowledge about their disease with type 2 diabetes control in ambulatory patients.

**Methods:** A 3-month cross-sectional study was carried out in 10 urban pharmacies of Coimbra district. Patients older than 18 years,

treated with non-insulin antidiabetic medication and diagnosed with type 2 diabetes for more than 12 months were invited to participate. Diabetes' knowledge was measured with the Berbés Questionnaire. The glycated haemoglobin (HbA1c) was measured with COBAS B101. Patients were considered controlled if presented a HbA1c not higher than 7%. Correlations (Pearson's) were performed between HbA1c values and either Berbés final scores or the number of right answers. Berbés scores were compared within controlled and uncontrolled patients (t-test). HbA1c means obtained for each of the questionnaire items were analysed by ANOVA with Bonferroni post-hoc test.

**Results:** The 154 patients were 70.9 ± 9.74 years old and 54.5% were female. The mean HbA1c value was 6.6% (95%CI 6.5-6.8). The mean Berbés score was 16.0 (95%CI 15.4-16.7). The mean number of correct answers was 14.3 (DP = 2.5). The mean score did not show differences among controlled and uncontrolled patients ( $p = 0.124$ ). There was no correlation between HbA1c and Berbés scores ( $p = 0.127$ ) nor with the number of correct answers ( $p = 0.180$ ). There was no difference between HbA1c and the answers for each of the 18 questions.

**Conclusions:** Knowledge about diabetes, measured with Berbés Questionnaire, was not a predictor of type 2 diabetes control.

**Keywords:** Diabetes' knowledge Berbés Questionnaire. Glycated haemoglobin. Type 2 diabetes.

### EFFECTS OF MEDICAL TREATMENT ON CHRONIC HEPATITIS C PATIENTS

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**Introduction:** Hepatitis C is a major cause of chronic liver disease worldwide. Currently, it is estimated an overall prevalence between 2% to 3% of infected, representing between 123 million to 170 million people, with more than 350,000 deaths each year. It should consider the association of infection with progression to cirrhosis and hepatocellular carcinoma. Drug treatment, and clinical follow-up and the uncertain prognosis, generates adversities that destabilize the daily routine of patients compromising their quality of life. It will be important to understand the impact of this phenomenon for patients.

**Objectives:** To comprehend chronic hepatitis C patients' perceptions, meanings, and quality-of-life effects.

**Methods:** Qualitative research; interviews with 12 patients at a specialized outpatient clinic from February to July 2012. The cohort size was determined by theoretical saturation and the interviews were analyzed by means of content analysis.

**Results:** Data were organized into four categories: on medication, referenced fears, impact on sexuality, and coping with the new reality. The categorized data were discussed around the following themes: "Becoming sick" due to treatment and perceived aspects and Undergoing treatment and how to cope with it.

**Conclusions:** Patients' everyday lives and quality of life in general are affected especially by adverse side effects of hepatitis C medication and an assortment of feelings and uncertainties about the disease prognosis. Notwithstanding, most patients manage to find ways to cope with the treatment and complete it expecting a satisfactory outcome.

**Keywords:** Adherence to medication. Nursing. Chronic hepatitis C. Perceptions.

WITHDRAWN ABSTRACT

WITHDRAWN ABSTRACT

### COMMUNICATION SKILLS: AN IGNORED HEALTH INDICATOR IN UNIVERSITY SETTINGS?

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**Introduction:** According to the World Health Organization, health is “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” Consequently, one might argue that communication skills are essential to have health/be healthy, especially if one considers the social well-being dimension of health.

**Objectives:** To assess and compare the satisfaction university teachers and students attribute to their own communication skills.

**Methods:** This is a quantitative descriptive study with a non-probability convenience sample of 251 university students and 79 university teachers studying/working in Portugal. The evaluation protocol included a sociodemographic questionnaire and the Importance Scale of the QCC- Communication Skills Questionnaire (Meneses et al., 2009).

**Results:** Statistically significant differences were found between teachers and students in 2 of the QCC 26 items, i.e., in the satisfaction with their ability to ask questions ( $p = 0.03$ ) and to answer to questions ( $p = 0.002$ ). Teachers mean scores were higher (i.e., more satisfied) than students scores. Nevertheless, none of the scores were very high nor very different from each other (Mst = 7.02 vs Mt = 7.62; Mst = 7.14 vs Mt = 7.95, in a scale from 0-very unsatisfied to 10-very satisfied). Regarding other scores, students' mean values were sometimes higher than teachers'.

**Conclusions:** Since the ability to ask and answer to questions is very important in social interactions, and in healthcare settings (i.e., to adequately interact with healthcare providers), the present results suggest communication skills training may be a particularly useful way to promote university students' social (physical and mental) health.

**Keywords:** Communication skills. University students. Teachers.

WITHDRAWN ABSTRACT

### COMMUNICATION SKILLS: ARE THEY IMPORTANT FOR HIGH SCHOOLING PATIENTS' OPINIONS?

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**Introduction:** Currently, there is a strong emphasis on promoting the healthcare team's communication skills. Some, however, argue that these skills are not very valued by patients.

**Objectives:** To explore the relationship between the opinion patients have regarding the last healthcare professional they had a

consultation with as a professional and the importance they give to communication skills.

**Methods:** This is a quantitative descriptive study with a non-probability convenience sample of 251 university students and 79 university teachers studying/working in Portugal. The evaluation protocol included a sociodemographic questionnaire, an item of the QSCS-A - Satisfaction with Health Care Questionnaire for Outpatients (Meneses et al., 2010) and the Importance Scale of the QCC- Communication Skills Questionnaire (Meneses et al., 2009).

**Results:** Statistically significant and positive correlations were found between the global opinion of patients regarding the healthcare professional and 4 of the QCC 26 items, i.e., to ask for feedback in social relations ( $p = 0.02$ ), to give feedback in social relations ( $p = 0.02$ ), to maintain a conversation ( $p = 0.03$ ), and to say goodbye ( $p = 0.04$ ).  
**Conclusions:** Even though in the expected direction, the number and intensity of the statistically significant correlations question the value patients with high schooling give to the communication skills of their healthcare professionals.

**Keywords:** Communication skills. Healthcare. Schooling.

### THE PILL 'S EFFECT ON THE VESTIBULAR SYSTEM

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**Introduction:** Women go through monthly reproductive cycles, beginning at puberty and usually occur throughout their reproductive lives, concluding in menopause. Many women throughout their life take oral contraceptives without knowing the effects they cause.

**Objectives:** To assess the influence that the pill has in the vestibular system, through the trials: saccadic, pendular and caloric videonystagmography of menstruating were taken.

**Methods:** The sample consisted of 25 female subjects, 12 in the experimental group (women who take oral contraceptive) and 13 in the control group aged between 17 and 24 years. The data collection took place during the menstrual period for both groups through the videonystagmography equipment, brand Synapsys - VNG Ulmer, version C4-7.

**Results:** After analyzing the data, we found statistically significant differences in the relative preponderance of caloric test. Saccadic test and pendulum test showed no statistically significant differences between both groups.

**Conclusions:** Through this study it can be concluded that the group of women taking as an oral contraceptive the pill present in the caloric test a decrease in compared relative preponderance with the group of women using no oral contraceptive, this indicates that the pill may interfere with the peripheral vestibular system of the woman, but not with the central vestibular system.

**Keywords:** Vestibular system. Pill. Videonystagmography.

### ERYTHEMATOSUS SYSTEMIC LUPUS IN PORTUGAL: ADHERENCE AND APPROACH TO MEDICATION THERAPY

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**Introduction:** Erythematosus systemic lupus is a chronic inflammatory disease that affects about half a million Europeans, more fre-

quent in the southern countries and fertile women. The therapy adherence in this disease is not well known, particularly in Portugal.  
**Objectives:** To characterize the medication therapy of Lupus, estimate the prevalence of therapy adherence and associated factors in Portugal.

**Methods:** This exploratory, cross-sectional and correlational study was based on a questionnaire, with MAT scale (measure of adherence to therapy) validated for the Portuguese population (Delgado & Lima, 2001), applied to 276 members of Patients with Lupus Association, in Portugal. It was used descriptive statistics and chi-square test, with a significance level of 5%.

**Results:** The sample consisted mostly of females (96.0%), with an average age of 41 ( $\pm 11.46$ ) years old. Antimalarials, antiinflammatory and immunosuppressive drugs are the pharmacotherapeutic groups more used. The prevalence of therapy adherence was 80.2%. Factors associated with Lupus therapy nonadherence are side effects, do not feel improvement, not acceptance, disease in remission and do not feel the need to treat ( $p < 0.05$ ).

**Conclusions:** This study shows a considerable prevalence of Lupus therapy adherence, being several factors associated with nonadherence. It is important the intervention of health professionals to improve therapy adherence for disease control.

**Keywords:** Erythematosus systemic lupus. Therapy adherence.

### DIABETES MELLITUS: THERAPY ADHERENCE AND NEW THERAPEUTIC APPROACH WITH INCRETIN MIMETICS IN NORTHEAST PORTUGAL

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**Introduction:** Diabetes mellitus is a chronic disease characterizes by the absence of insulin production by the body or the inability of their effectively use. WHO estimated that 8.5% of adults had diabetes in 2014 and the prevalence of the disease has been rising.

**Objectives:** The study aimed to determine prevalence of diabetics, the frequency of glycemic control, identify change in eating habits and physical exercise, characterize the pharmacological therapy and verify the therapy adherence in diabetics of northeast Portugal.

**Methods:** A descriptive and cross-sectional study was performed by applying an interview to 202 adult diabetics of Trás-os-Montes region (Portugal), based on a questionnaire, with MAT scale (measure of adherence to therapy) validated for the Portuguese population (Delgado & Lima, 2001).

**Results:** The results showed 73.8% and 26.2% diabetics of type 1 and type 2, respectively. Most of the total diabetics (38.1%, 77) have controlled the glycemic once a day and 122 (60.4%) have modified eating habits (92.6% have reduced the sugar consumption and 53.3% have reduced the carbohydrates consumption). Additionally, 89.7% indicate the increased frequency of physical activity. Concerning their quality life, 44.6% consider it as moderate. The drugs more used were metformin (63) and insulin (52) and the use of incretin mimetics was low (13.9%, 28), with more expression of the association of metformin and vildagliptin (21). The prevalence of diabetics adherents to therapy was 92.6%.

**Conclusions:** The majority of diabetics adhered to therapy and the use of incretin mimetics remains with low significance.

**Keywords:** Diabetics. Therapy adherence. Drugs Therapy.

## 2. CARDIOVASCULAR HEALTH

### PATIENT'S KNOWLEDGE LEVEL ON PACEMAKERS

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**Introduction:** The implantation of cardiac pacemakers (PM) is used to treat rhythm disorders, with the main goal of increasing life expectancy. The resulting changes on physical, psychological, social and quality of life levels determine the importance of ascertaining the patient's knowledge regarding all aspects related to the PMs.

**Objectives:** To determine the level of knowledge that patients carrying a PM have about these cardiac devices.

**Methods:** Descriptive, relational and transversal study, carried out on a sample of 90 patients, who attended the PM Consultation at a hospital located in the central region of the country. The data collection was conducted through a questionnaire (sociodemographic characteristics, characterization of information regarding PM), self-administered to individuals attending the consultation at that time.

**Results:** Patients were on average of 75.01 years old, 67.8% of them live in small villages and the majority has a basic education level. 67.8% of the patients were unaware of what a PM is and 87.8% mentioned to have been provided with information on the device (62.2% by a "doctor" and 27.8% by a "nurse"). It is noteworthy that 39.2% of the patients reported that the quality of the information given was either "reasonable" or "very poor".

**Conclusions:** Like in other studies, the patients' low level of knowledge regarding PMs has been confirmed. The knowledge levels could be optimized with the establishment of a nursing consultation thus contributing to the empowerment of the patients in managing their chronic condition.

**Keywords:** Knowledge level. Pacemaker. Nursing Consultation.

### GENDER DIFFERENCES IN CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH TYPE 2 DIABETES

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**Introduction:** In the last decades substantial efforts have been made to improve the understanding of gender differences in cardiovascular disease and to reduce gender disparities in research, prevention and clinical care.

**Objectives:** This study aimed to analyze gender differences in modifiable cardiovascular risk factors in patients with type 2 diabetes (T2D).

**Methods:** Glycosylated hemoglobin (HbA1c), total cholesterol (TC), high-density lipoprotein (HDL), low-density lipoprotein (LDL), triglycerides (TG), systolic blood pressure (SBP), diastolic blood pressure (DBP) and body mass index (BMI) were measured in 96 individuals with T2D (48 women and 48 men; 66.23 ± 6.34 years; 10.55 ± 7.55 years of diabetes duration; non-smokers; polymedicated) candidates to Diabetes em Movimento® Vila Real, a community-based lifestyle intervention program developed in Portugal (NCT02631902).

**Results:** No differences were observed in age (65.98 ± 6.41 vs 66.48 ± 6.33 years; p = 0.703) and diabetes duration (10.38 ± 7.60 vs 10.71 ± 7.58 years; p = 0.835) between women and men. Significant differences were identified in TC (185.15 ± 40.10 vs 164.90 ± 28.39 mg/dL; p = 0.005), HDL (55.35 ± 12.73 vs 48.54 ± 9.84 mg/dL; p = 0.004), LDL (103.87 ± 35.93 vs 88.79 ± 25.60 mg/dL; p = 0.020) and SBP (141.72 ± 17.00 vs 152.41 ± 18.38 mmHg; p = 0.004) between women and men. No differences were observed in HbA1c (7.12 ± 1.13 vs 7.05 ± 1.33%; p = 0.767), TG (129.60 ± 60.94 vs 137.83 ± 106.89 mg/dL; p = 0.644), DBP (85.49 ± 7.97 vs 87.32 ± 9.60 mmHg; p = 0.311) and BMI (30.39 ± 3.76 vs 29.77 ± 3.76 kg/m<sup>2</sup>; p = 0.424), respectively.

**Conclusions:** Women presented worse TC and LDL levels, and better HDL and SBP levels than men. Cardiovascular disease prevention strategies should consider these differences.

**Keywords:** Gender. Type 2 diabetes. Cardiovascular risk.

### CHARACTERIZATION OF POTENTIAL DRUG-DRUG INTERACTIONS WITH VITAMIN K ANTAGONISTS AND ITS INFLUENCE ON BLOOD CLOTTING

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**Introduction:** Vitamin K antagonists are oral anticoagulants used in the prevention and treatment of thromboembolic events, but their effectiveness can be changed when co-administered with other drugs.

**Objectives:** Characterize potential drug-drug interactions likely to occur with vitamin K antagonists.

**Methods:** This observational and cross-sectional study included a sample of 67 patients who were under blood clotting control and therapeutic monitoring in a laboratory of Oporto, between February and March of 2016. An individual survey by questionnaire, was applied, whose data were analyzed by SPSS® program. Each potential drug interaction was analyzed using Lexi-interact® software, which features its clinical relevance clinical, according to severity, in A, B, C, D and X.

**Results:** Ninety four potential drug-drug interactions were detected, and 74.6% of patients had at least one. About 85.1% had clinical relevance C and D, highlighted as the most prevalent and most severe. The predominant pharmacotherapy class causing potential drug interactions was "HMG-CoA Reductase Inhibitors", with 24.5%, categorized with clinical relevance C. The most severe (D) were "Cardiac Therapy", "Antigout" "Antimicrobial" "Antiepileptics," "Antithrombotic" and natural products. However, there was no statistically significant association between the clinical relevance and the INR values (p = 0.168).

**Conclusions:** The absence of significant association may be due to the fact that: patients are pathologically stabilized and chronic medication is being co-administered, with a doses adjustment of anticoagulant therapy; or non-consideration of the diet, which may have lead the Health Professionals to warn and educate patients about the importance of conducting regular monitoring of blood clotting.

**Keywords:** Coagulation. Interactions. Vit K.



### 3. CHILD AND ADOLESCENT HEALTH

#### INTERPRETING DRAWINGS BY CHILDREN AND ADOLESCENTS UNDERGOING CANCER TREATMENT

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**Introduction:** Visual arts, especially drawing, are an easily accessible instrument, relevant in the context of paediatric oncology, as they are a communication facilitator between children or adolescents undergoing cancer treatment and their parents and the health care team. The interpretation of art works reveals emotional indicators that are sometimes not expressed verbally.

**Objectives:** Drawings by 3 to 17 years old children and adolescents undergoing cancer treatment were interpreted under three specific themes: self-portrait, their family and fear.

**Methods:** A profile sheet stating each child/adolescent's personal data, her/his diagnosed cancer, and details of some family background was created and used at the Portuguese Institute of Oncology Porto (IPO-P) and at the Brazilian Support Group for Children with Cancer (GACC, in Salvador da Bahia). Forty drawings by children of different ages were analysed: 20 drawings from 12 children of IPO-P and 20 drawings from 9 children of GACC. The symbolic imagery of visual expression was interpreted by relating each child's drawing to her/his personal life.

**Results:** During the activity, the children and adolescents interacted with each other and also with others persons. They showed signs of improved well-being, of joy and self-esteem as they were feeling their own work being valued. The drawings by children and adolescents from both institutions, IPO and GACC, have common and different characteristics.

**Conclusions:** The enjoyment of artistic expression in the context of Paediatric Oncology is essential as it provides a mediator, facilitator and inciter bases for these children and adolescents undergoing cancer treatment to develop an educational, emotional and physical framework promoting well-being.

**Keywords:** Interpreting drawings. Paediatric Oncology.

#### OVERWEIGHT AND OBESITY IN ADOLESCENTS - ANALYSIS OF ASSOCIATED FACTORS

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**Introduction:** Overweight and obesity, considered serious public health issues, have increased in epidemic proportions, particularly among children and adolescents. They are associated with a high risk of morbidity and mortality as well as the decrease of life expectancy.

**Objectives:** The aim of this cross-sectional study was to estimate the prevalence of pre-obesity and obesity among adolescents of the district of Viseu, Portugal, and associate with behavioral and psychological factors.

**Methods:** A total of 7,306 adolescents aged 11 to 18 years old were assessed. Determination of pre-obesity and obesity was obtained

by the Body Mass Index (BMI) according to the cut-off points of the International Obesity Task Force. The higher percentage of the sample is female (53.5%) with a mean age of  $14.94 \pm 1.78$  years and 63.7% live in rural areas. Data was collected through a self-administered questionnaire consisting of sociodemographic, behavioral and psychological (depressive symptoms) questions.

**Results:** The overall prevalence of pre-obesity and obesity were 48.6% and 2.8%, respectively, according to BMI. Overweight and obesity are associated with the male sex (OR = 1.24; 95%CI 1.14-1.36); both increase with age ( $p < 0.001$ ); with alcohol consumption ( $p < 0.001$ ); with smoking habits (OR = 1.70; 95%CI 1.45-2.00); with coffee consumption (OR = 1.53; 95%CI 1.39-1.69); with depressive symptoms (OR = 1.14; 95%CI 1.03-1.30); with tiredness during the day (OR = 1.20; 95%CI 1.07-1.33) and the presence of headaches (OR = 1.14; 95%CI 1.04-1.25).

**Conclusions:** The high prevalence of overweight and obesity was observed. In the present study. It is essential to promote health and prevent this public health problem thinking in promoting other health behaviors, including sleep hygiene.

**Keywords:** Obesity. Overweight. Adolescents. Depressive symptomatology. Health behaviors.

#### HELICOBACTER PYLORI INFECTION IN A COMMUNITY SAMPLE OF PORTUGUESE ADULTS - A PUBLIC HEALTH ISSUE

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**Introduction:** Helicobacter pylori (H. pylori) is a worldwide infection. The prevalence of infection by H. pylori, in several European countries, has varied between 31.7% and 93.6%. Knowledge about the main determinants of H. pylori infection among adults is essential to predict the impact on the epidemiology of other chronic diseases, especially gastric cancer, peptic ulcer disease and gastroesophageal reflux.

**Objectives:** To estimate the prevalence of infection with H. pylori and identify key sociodemographic factors associated with H. pylori in a sample of Portuguese adults.

**Methods:** We conducted an observational cross-sectional study. The community sample consisted of 166 adults of Viseu (56.6% female) with a mean age  $46.96 \pm 3.17$  years. A self-administered questionnaire was filled out by all participants. The adults were screened for H. pylori infection using the 13C-urea breath test. Prevalences were expressed in proportions and compared by the chi-square test. Crude odds ratio (OR) with 95% confidence intervals (CI) were used.

**Results:** The prevalence of H. pylori was 48.8%. The prevalence of H. pylori infection was associated with age ( $> 50$  years, OR = 1.62, 95%CI 1.10-2.99), scholarship level ( $< 9^{\text{th}}$  grade, OR = 1.26, 95%CI 1.02-1.71) and drinking water (water from a well, OR = 2.12, 95%CI 1.05-4.29). No association was found between the presence of H. pylori and gender, professional situation and health risk habits such as alcohol consumption and smoking.

**Conclusions:** We found a high prevalence of H. pylori infection among adults and associated with socio-demographic variables, suggesting that gastric pathology continues to be an important public health issue.

**Keywords:** H. pylori. Prevalence. Socio-demographic aspects. Adults.

## BREASTFEEDING DIFFICULTIES AFTER DISCHARGE IN NEWBORNS HOSPITALIZED IN INTENSIVE CARE UNITS

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**Introduction:** The success of breastfeeding in babies with special needs depends on the knowledge of their needs and the circumstances of their feeding. Despite these babies benefit so much of breast milk, they are more exposed to early weaning related with various difficulties.

**Objectives:** Identify maternal difficulties associated with the breastfeeding after discharge of intensive care units.

**Methods:** Quantitative, descriptive, analytical, cross-sectional study, conducted in a non-probabilistic sample of 100 mothers (mean age = 29.63 years, SD = 5.39), who stay with their newborn in intensive care Unit. We used a self-report questionnaire over experience of breastfeeding mothers (Sousa, 2014).

**Results:** From the newborn, 39.0% were premature and 41% had infectious risk. Of mothers, 96% breastfed their baby into the discharge of the Unit. Had difficulties with breastfeeding 53% of mothers, particularly related to breast engorgement (40%), nipple cracks (16%) and 92% recognized being supported by nurses. Older mothers and with higher education level, revealed have no difficulties with breastfeeding, but with no statistical significance, while the type of delivery (eutocic) ( $p = 0.042$ ) and baby's weight (overgrowth) ( $p = 0.016$ ) were associated significantly to the mother's breastfeeding difficulties.

**Conclusions:** The training and mother training for breastfeeding, especially in sick newborns is very difficult. Health professionals must adapt their practices to the situation of each baby, but above all the experiences and difficulties of each mother, identifying their expectations and needs support.

**Keywords:** Breastfeeding. Difficulties. Neonatal Intensive care.

## RESILIENCE AND SENSE THE HUMOR OF STUDENTS IN CLINICAL TEACHING

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**Framework:** Be resilient is to have the ability to face the adversities, transformations, disruptions and challenges, elaborating the situations and recovering face to the same.

**Objectives:** To identify the personal characteristics of nursing students in clinical training; to know the characteristics of academic nursing students; know the self-esteem and the humour in nursing students in clinical training; to identify the relationship between personal characteristics, academic characteristics, the self-esteem, the humour and the resiliency of nursing students in clinical training.

**Methods:** a quantitative described-correlational study. We used the questionnaire for data collection as: gender; age; the option of course; reasons for coming to the course; year of frequency; change of residence; cohabitation; global assessment of the resiliency; global Assessment of the self-esteem; Ladder of multi-dimensional evaluation of sense of humour ; and which measures to implement in order to promote resiliency in students in clinical training. The sample was composed by 97 nursing students.

**Results:** The sample consists mainly of students were female (77.3%), with a predominance of students aged between 18 and 23 years (76.3%). In this study we observed that the majority of the nursing students have a capacity for high resiliency (50.5%), only 1 presented low levels of resiliency and the remaining were

in average. The self-esteem and the humour relate to resiliency of students.

**Conclusions:** Majority of the nursing students have a capacity for high resiliency, this means that the majority has the ability to handle and overcome adversity, transforming negative experiences in learning and opportunity for change.

**Keywords:** Resilience. Students. Clinical teaching.

## TIME-TRENDS IN INFANT MORTALITY RATES IN THE SOUTHERN EUROPE

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**Introduction:** Infant Mortality Rate (IMR) has been considered an important health indicator in monitoring quality of health care.

**Objectives:** To examine trends in IMR in Southern Europe (SE) over the last two decades.

**Methods:** Number of live births and infant deaths reported for SE (Portugal, Italy, Greece and Spain) between 1990 and 2013 were abstracted from World Health Organization Database. Annual IMR per 1,000 live births was computed for each country and for SE as a whole. Joinpoint regression models were used to estimate average annual percent change (AAPC) in IMR and respective 95% Confidence Interval (95% CI) and to identify points in time when significant changes in trend occurred (joinpoints).

**Results:** Between 1990 and 2013, IMR significantly decreased from 9.2 to 3.4 in SE and the highest decrease was observed from 1992 to 1998 (AAPC = -6.1%; 95%CI: -6.5%; -5.8%). Significant decline in IMR was observed in all countries but the pattern was different across countries. IMR varied across countries between 11.5 and 8.3 and between 3.1 and 3.8 in 2013; highest IMR were observed in Portugal for 1990 and in Greece for 2013. Most notable decreases in IMR were observed from 1990 to 1995 in Portugal (AAPC = -8.4% 95%CI: -8.8; -8.1), from 1993 to 1997 in Italy (AAPC = -6.6% 95%CI: -7.8; -5.5) from 1998 to 2006 in Greece (AAPC = -6.8% 95%CI: -7.0; -6.5), and from 1993 to 1996 in Spain (AAPC = -7.3% 95%CI: -9.0; -5.6). Decreases in IMR were significant during all time period in Italy and Greece but in Portugal and Spain IMR became unchangeable after 2010-2011.

**Conclusions:** Decrease in IMR in countries of SE suggests steadily improvement in the quality of health care. However differences in the pattern of decrease across countries during the last years deserve particular attention.

**Keywords:** Time-trends. Infant mortality. Rates. Southern Europe.

## ADOLESCENTS' PERCEPTIONS ABOUT THEIR HOSPITALIZATION

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**Introduction:** The adolescence is a period of growth and development which health and wellbeing is predominant and this can be an explanation for the lack of specialized wards for adolescents.

**Objectives:** To analyse the adolescents' perception about the health care team; to know the adolescents' experiences regarding their hospitalization in the paediatric ward of the Matosinhos Local Health Unit (ULSM) and to know the adolescents' opinion on the ideal health care service/unit.

**Methods:** We conducted a qualitative, exploratory, descriptive and retrospective study with 10 adolescents between 10 and 18 years

old who had been hospitalized in the ULSM's Paediatric ward for at least 48 hours. Semi-structured interviews were performed and content analyses was used to treat data.

**Results:** Representations of the Health Team and Representations of the Service/Unit Organization emerged as themes. The adolescents highlighted the nurse/client interaction and in general were pleased with the rest of the health care team; the feelings/emotions and attitudes most frequently experienced by them were: loneliness, fear, sadness, boredom, longing, ambivalence of feelings, adaptation and concern; Emotional support in the hospital and the experience of hospitalization contributed to adolescents' psychosocial development; adolescents see cure or punishment as the reasons for the admission in hospital and they feel that there were organizational issues which influenced the experience of hospitalization.

**Conclusions:** Besides the negative impact of the adolescent hospitalization we can promote an enjoyable adolescent hospitalization experience through the nursing care provided and adjusted to this group and based in a deeper knowledge of what interferes with their hospitalisation.

**Keywords:** Adolescent. Hospitalization. Feelings. Emotions. Nurses.

### CHILDREN AT RISK, ATTACHMENT AND INSTITUTIONALIZATION: CONTRIBUTIONS TO THE SOCIO-EDUCATIONAL INTERVENTION

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**Introduction:** Institutionalized children exposed to early adverse experiences are a particularly vulnerable group with a high risk of developing health problems.

**Objectives:** i) to know the representations of attachment in institutionalized children; ii) to understand if there are differences of attachment, according to some sociodemographic variables; iii) outline socio-educational intervention strategies in the children's life's contexts.

**Methods:** This is an exploratory and cross-sectional study, using for this purpose, a non-probabilistic and convenience sample composed of 82 institutionalized children, aged between 8 and 17 years old. The gathering instruments were the Sociodemographic Questionnaire and the Inventory Attachment for Children and Adolescents.

**Results:** The results show that most children have secure attachment representations, followed by the avoidant attachment representations. We also found significant differences in the results of attachment, according to the gender (in avoidant attachment and ambivalent attachment) and in the institutionalization time (in the ambivalent attachment).

**Conclusions:** The results show promising lines of research, being our purpose to outline socio-educational intervention strategies for children in their pathways of life by promoting protective factors, especially the establishment of secure relationships, thus promoting better quality of life and well-being.

**Keywords:** Attachment. Risk. Institutionalization.

### RESILIENCE, PERCEPTION OF PARENTAL SUPPORT AND SOCIO-EDUCATIONAL INTERVENTION STRATEGIES

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**Introduction:** Resilience is a core variable in the context of studies on the psychosocial adjustment and school children and teenagers,

and should be considered in the context of strategies to promote their well-being and quality of life.

**Objectives:** To know the relationship between resilience, parental support and some sociodemographic variables; outline socio-educational intervention strategies in contexts of children's lives.

**Methods:** This is a non-experimental, correlational and cross-sectional study, having used a non-probabilistic convenience sample consisting of 150 children, aged between 10 and 16 years old, attending the 2<sup>nd</sup> and 3<sup>rd</sup> cycles of Basic Education. The gathering instruments were the Sociodemographic Questionnaire, Inventory Measuring State and Child Resilience (Martins, 2005) and Perception Parental Support Scale (Veiga, 2011).

**Results:** Results show that there are significant differences in the values of the current, past and overall resilience, between the age groups children, revealing that children aged between 10 and 11 years have higher results in resilience than young people aged between 14 and 16 years. We also observed significant differences in the current resilience, depending on the parents' marital status (higher when parents are married). We also observed positive and significant correlations between resilience and perception of parental support.

**Conclusions:** Results are in line with the scientific literature in the field that highlights the key role of resilience in school and psychosocial adjustment of children, and should be considered within the design of socio-educational intervention strategies.

**Keywords:** Resilience. Parental support. Attachment.

### INTRINSIC AND EXTRINSIC MOTIVATION TO BREASTFEED SCALE - PORTUGUESE VERSION: ANALYZE THE DIMENSIONS OF MOTIVATION

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**Introduction:** Breastfeeding (BF) should be decided by the pregnant, as early as possible. The fundamental prerequisite for the success of BF is the motivation (Sardo, 2016) and is considered the first step to this decision-making.

**Objectives:** To analyse the factors that influence the pregnancy motivation to breastfeed.

**Methods:** Quantitative, descriptive-correlational study, using intentional sample, 300 women, with 20 or more weeks of gestation. Data collection: questionnaire with sociodemographic, obstetric and situational variables, including Intrinsic and Extrinsic Motivation to Breastfeed Scale - Portuguese version (Wells, Thompson, & Kloebe-Tarver, 2002 adapted by Sardo, 2016) includes 4 dimensions. The study was approved by ethics committee, all participants signed an informed consent agreement and it was assured the confidentiality.

**Results:** 99% of pregnant women reported being motivated to breastfeed. 95.7% had high and moderate level of BF motivation (50.4%). 60.7% had moderate level relative to the extrinsic BF motivation and 86.3% high motivation level relative to the total intrinsic motivation (desire for self-control - 40%, baby's health - 99.4% and mother's health - 56%). From 13 factors studied just education ( $Ró = -0.216$ ,  $p < 0.001$ ), monthly household income ( $Ró = -0.131$ ,  $p < 0.023$ ), type of delivery, gestational age at 1st prenatal appointment ( $Ró = -0.151$ ,  $p = 0.009$ ) and BF training were statistically significant in relation to the scores of total motivation.

**Conclusions:** The pregnant motivation to BF was influenced by sociodemographic, obstetrical and situational factors. It is important, for health professionals, to identify the influence factors to the pregnant motivation to BF, so that they can support them in their decision and thus be more prolonged BF.

**Keywords:** Intrinsic and extrinsic motivation. Breastfeeding.

## BABY-LED WEANING: A VALID ALTERNATIVE TO TRADITIONAL INTRODUCTION TO COMPLEMENTARY FOOD?

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Childhood is a period of great vulnerability and early nutrition is considered to be crucial to prevent harmful health consequences such as chronic non-communicable diseases (obesity, diabetes and hypertension). Most European infants introduce solid foods earlier than six months of age as recommended by WHO. The solid foods most frequently introduced are fruit and cereals and the following foods vary depending on the country of residence. Websites, e-forums and blogs on complementary feeding are widely spread in the web. What recommend to families who follow alternative methods for introducing complementary foods? Baby-led weaning (BLW) is an approach to introducing solid food where the infant feeds themselves hand-held foods instead of being spoon-fed by an adult (e.g. purées via spoon). The infants are encouraged to self-feed appropriate finger foods, choose what, how much, and how quickly to eat and are given the freedom to explore new tastes and textures without the pressure to eat a set amount or a specific food. The BLW infant also shares family food and mealtimes and is offered milk (ideally breast milk) on demand until they self-wean. Prerequisites for BLW are: exclusive breastfeeding to six months and then beginning complementary foods; acquisition of the gross and oral motor skills required for successful and safe self-feeding; the practicalities of family meals and continued breastfeeding. Observational studies suggest that BLW may encourage improved eating patterns and lead to healthier lifestyle. BLW will not suit all infants and families, but it is probably achievable for most. Actual recommendations say that priority should be given to local and seasonal products by the sustainability component and economic promotion of small farms (organically grown food).

**Keywords:** Child health. Complementary food. Baby-led weaning.

## TODDLERS OBESITY: HEALTH CONCERN FOR NURSES

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**Introduction:** Children obesity has been rising all over the world and was a priority for the United Nations, in 2015. Portugal, is one of the countries with a higher number of children with overweight and obesity. Studying obesity in the toddlers' population will allow nurses to intervene earlier and specifically within this problem. The World Health Organization (WHO) report states that the global number of children and adolescents with obesity or overweight increased from 32 million in 1990 to 42 million in 2013 (WHO, 2013). In 2013, 14 from the 42 million worldwide children, aged below 5 years old considered obese or overweight, were European. Portugal is one of the five European countries with a higher children overweight rate (obesity included) (Rito, et al., 2008).

**Perspectives:** In Portugal, the National Health Plan 2020 refers that the control of incidence and prevalence of overweight and obesity is one of the main goals to achieve (DGS, 2015). Furthermore, the WHO defined recommendations, such as: to implement wider programmes that promote an healthy nutritional intake and to reduce sugar beverage in children and adolescents.

**Implications:** Children obesity is a major concern with several implications for life. An obese child has higher probability to develop

diseases and become an obese adult which will interfere with the quality of life and will increase costs on health.

**Conclusions:** Obesity is a multifactorial problem, therefore an effective and integrated solution is needed. Taken into account all health and social problems related with overweight and obesity is urgent to change the paradigm focused in treatment and rehabilitation for a paradigm focus on prevention where nurses can have a major contribution.

**Keywords:** Nurses. Obesity. Overweight. Toddlers. Nursing care.

## RENAL DISEASE CHILDREN - QUALITY OF LIFE

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**Introduction:** The increasing incidence of chronic diseases such as kidney disease, makes it difficult to appreciate a normal life due to the changes in lifestyle.

**Objectives:** To characterize the quality of life perceived by children with kidney disease who attend summer camps as well as to analyze the relationship between the sociodemographic and clinical variables.

**Methods:** Iberian descriptive, correlational and cross-sectional study, mixed nature: quantitative and qualitative. The sample is composed of 29 Spanish children and 13 Portuguese with chronic kidney disease who are on summer camps with aged between 7 and 17 years. We used the KINDL scale (Bullinger & Ravens-Sieberer, 1998a, 1998b), which includes 7 dimensions: Wellness Physical, Emotional Wellness, Self-Esteem, Family, Friends, School and Location Clinic. They added up 6 questions of sociodemographic and a notepad.

**Results:** The patients showed a positive perception of quality of life. "Self-esteem" dimension was the best perceived and "Emotional Well-being" the worst. Children with Spanish nationality perceived better quality of life. For the remaining variables, the differences were not statistically significant. The content analysis to the testimonies, emerged positive feelings, which allows us to infer that the summer camp was an activity that contributed to the socialization and improving the quality of life of children.

**Conclusions:** These data show that an individual monitoring would be beneficial, targeted to the specific needs of each child, by a multidisciplinary team. The holiday camps as formative and ludic are essential.

**Keywords:** Quality of life. Kidney disease. Camping.

## BODY IMAGE PERCEPTION IN ADOLESCENTS AND CONCERN WITH WEIGHT

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In a holistic conception of health, youth health is moderated by their self image and the perception that adolescents have of themselves is conditioned by social and cultural pressure, and low self-esteem is often observed, possibly caused by the way they perceive their own body, having as a consequence, an health profile with morbidities. Recognize the level of youth health assessing Body Image perception and their concern with weight. It is a descriptive, quantitative and transversal study. Based on a sampling error lower than 5% and a confidence level of 95%, the study was carried out on a sample of 600 adolescents aged between 12 and 18. A self-ad-

ministered questionnaire validated for adolescents was conducted by Di Pietro (2002). The sample is composed of 44% male and 56% female adolescents, with an age mean of 15.54. 61.2% of the boys and 83.6% of the girls stated to be concerned with their weight. The main reasons given for this concern were health associated with aesthetics (29.1% of boys and 38.5% of girls). The results show that 12.8% of boys and 23.5% of girls are dissatisfied with their body image. The study revealed that the variable gender is statistically moderating in relation to the variables: body image perception and concern with weight: female adolescents show a higher dissatisfaction with their body image (0.003) and a bigger concern with weight (0.000). The results point out towards the need for assessment/intervention in this population as body image represents a paramount issue in adolescence, with the body image self-perception being strongly associated with the biopsychosocial maturing process, which interferes with their level of health and personal and social development.

**Keywords:** Body image. Adolescents. Youth health.

### PARENTAL FEELINGS FACE TO HOSPITALIZATION OF THE CHILD

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**Introduction:** The hospitalization of a child carries with it major changes, either in the child's life or parent. Illness and hospitalization constitute a crisis situation for both the child and the family as it incorporates financial, psychological, relational and social changes. The purpose of this work and analyze the satisfaction and parents' perception on the importance of nursing care during hospitalization and feelings experienced by parents.

**Objectives:** To know the opinions and feelings of the parents in relation to the admission of the child in the service of Pediatrics at North of Portugal.

**Methods:** Integrated this study parents of children hospitalized in the pediatric inpatient at the Hospital Trás-os-Montes e Alto Douro, Vila Real, whose children were in the service to at least more than 48 hours, in total 33 escorts that replied to the questionnaire. For such a study we chose the type quantitative descriptive. We proceeded to collect data by conducting a questionnaire, and the results of it were drafted in the SPSS program through Quantitative model with exploratory qualitative approach.

**Results:** The age of the participants is between the 21 and 46 years - old, 75.8% of respondents were married, 78.8% of children was hospitalized in the first time. We conclude that the mother is who else accompanies the child in the hospital. We had positive feedback regarding the interaction parent-nurses since many parents stressed the good relationship with the nursing team (It reported that "Nurses" and "Nurses and "auxiliaries" were who else helped them, with 30.3% and 21.2% respectively). The feelings more mentioned were: anxiety -21 answers, sadness-20, fear-15 and hope with 15. The conditions offered to the parents were considered good for 60.6%.

**Keywords:** Nursing. Parenting. Feelings. Hospitalization of children.

### HEARING LOSS AND CHILDREN'S BALANCE

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**Introduction:** Body balance is essential for normal development and most of the child's daily activities. For this to happen smoothly,

there must be consistency between the three sensory systems: visual, proprioception and vestibular.

**Objectives:** To assess the body balance and vestibular system in children with severe to profound hearing, with and without hearing impairment and children without hearing loss.

**Methods:** For the collection of information Posturography Computerised (PC), Clinical Test of Sensory Integration and Balance (mCTSIB) and the one-leg support test were applied. It was held further Fukuda/Unterberger test, Subjective Visual Vertical (SVV) and applied research of spontaneous and decentered nystagmus. For this study, we used a sample constituted by 32 children, 18 with hearing disorders and 15 with normal hearing, aged 12 to 17 years.

**Results:** We found that no significant differences between children with hearing disorders and normal hearing in any of the tests. The results revealed no significant differences between children with hearing disorders and normal hearing in any of the tests. Although, when compared the children who practice sports twice or three times per week in both groups, it is found statistically relevant variations on mCTSIB test.

**Conclusions:** In this study children with severe to profound hearing loss started walking with the age to normal hearing children, do not have higher body instability. However, regular sports practice causes a higher body balance in normal hearing children compared with children with hearing loss.

**Keywords:** Children. Hearing loss. Body balance.

### ADOLESCENTS WITH CYSTIC FIBROSIS AND THEIR INFORMATION DESK: INTERNET, PARENTS OR HEALTH PROFESSIONALS?

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**Introduction:** The development of diagnostic and treatment options for cystic fibrosis has had a positive impact on children's survival rates but also led to the appearance of more disease-related problems. The children's response mechanisms and ability to adapt to this new situation are consistent with the personal physical, psychological, emotional and social development and to society status. In the adolescents with Cystic Fibrosis (CF), besides the age related developmental changes, several physical and psychosocial needs are identified, according to the disease characteristics.

**Objectives:** To identify the sources of information on cystic fibrosis searched for adolescents.

**Methods:** A qualitative study was performed, using semi-structured interviews for data collection. The sample comprised 16 adolescents with CF diagnosed for more than one year. Adolescents were aged between 11 and 23 years, living in the northern region of Portugal.

**Results:** The internet was the main tool used to search for disease-related information, in particular on symptoms, prognosis and treatments. Adolescents accessed information using a general web search tool, rather than a specific web site. Parents and health professionals, especially the practitioner, who accompany the adolescent since diagnosis, were also considered a very reliable source of information.

**Conclusions:** This study results showed that adolescents are interested on information about their health. Participants also refer to graphically sensitive images and information contents on prognosis and treatment options, likely to undermine the adherence to treatment. Nurses are professionals able to establish a closer connection with this population, thus their interventions should focus on providing guidance and relevant information.

**Keywords:** Adolescents. Cystic fibrosis. Information.

## THE PARENTS AND THE EXPERIENCES OF PAIN IN CHILDREN

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**Introduction:** The need to control the pain is as old as human existence. Despite higher Knowledge about the physiology of pain, taking care of child in pain is still a challenge for health professionals and parents. The biggest concern of parents is pain relief, however, their information about pharmacological measures are insufficient (Beckhauser et al, 2010).

**Objectives:** Characterize the meanings attributed by parents to pain experiences in children; Identify the measures used by parents to the child pain relief.

**Methods:** A qualitative, exploratory and phenomenological study, with a sample of sixteen caregivers of children aged between three and ten years who had been to the Pediatric Emergency Department hospital of the central zone in Portugal, between February and March of 2016. We made content analysis to "corpus" of all semi-structured interviews.

**Results:** Both with 44.1% musculoskeletal and otolaryngology pain are seen by parents as the motive to go to the urgency. The most significant types of pain which parents mentioned were the ones related to body postures and movements alterations with 31.5%. The pharmacological measures were reported by 69.3% of the interviewed and combination of both non-pharmacological and pharmacological had 25.2% of references. We also found that 50% of caregivers do not have enough information to administer medication to children with pain.

**Conclusions:** Stand out clues in order to understand the difficulties and meanings attributed to the experience of parents in care of children with pain. It is also necessary to improve the training of parents in the transition process of disease, increase the level of literacy of the pain, and emphasize the importance of the role of nurses in this field.

**Keywords:** Children. Caregivers. Pain in children.

## FOOD CONTEXT AND BODY MASS INDEX IN ADOLESCENTS

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**Introduction:** In the last decades, the incidence of overweight and obesity has increased significantly worldwide, and Portugal wasn't an exception. Nowadays the WHO places obesity among the ten major risk factors threatening health, considering the prevention of the obesity epidemic as a public health challenge priority in the twenty-first century.

**Objectives:** Analyse the existence of causality of the food context variables (frequency of eating breakfast, number of daily meals, frequency of food intake between meals), as determining factors in the body mass index of adolescents.

**Methods:** This study was observational and transversal, quantitative, non-experimental, descriptive and correlational, was conducted with 1,467 adolescents with a mean age of 14.01, mostly female sex (52.3%), living in rural areas (63.32%) in various districts of Portugal mainland, attending between the 5<sup>th</sup> and 12<sup>th</sup> grade of

public education, it is carried out an anthropometric assessment and stratification index of obesity based on the framework of the NCHS of CDC (2000).

**Results:** Low daily breakfast intake has an effect with statistical significance which goes in the sense that the fewer times they ingest breakfast the higher becomes their BMI ( $\chi^2 = 12.273$ ,  $p = 0.046$ ). Intake of only three meals a day is associated with a higher body mass index ( $\chi^2 = 17.062$ ,  $p = 0.009$ ). Ingesting rarely or never food between meals has an effect with statistical significance, which shows that the lower intake between meals the higher the body mass index will be ( $\chi^2 = 19.451$ ,  $p = 0.003$ ).

**Conclusions:** Inferences show that when monitoring the adolescent's development its indispensable to value risk determinants, being crucial to combat and preventing these if chosen to implement intervention programs focused on the family.

**Keywords:** Obesity. BMI. Adolescents. Eating habits.

## 4. EDUCATION FOR HEALTHY EATING BEHAVIORS

### EFFECTIVENESS OF THE MINOR PROGRAM SALT: SOPA.COME IN SCHOOL CANTEENS AND IN SOCIAL INSTITUTIONS OF THE AVEIRO REGION

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**Introduction:** The average salt intake by a Portuguese adult is about 10.7 g salt/day, greater than the double recommended (5 g salt/person/day), for the prevention of cardiovascular diseases. Therefore, the Department of Public Health of the centre region of Portugal has created the Program.

**Objectives:** Reduce the salt concentration for 0.5 g salt/100 of soup in school and social institutions canteens of the Aveiro Region.

**Methods:** Conducting a longitudinal correlational study in 261 schools/institutions, the methodological intervention consisted of a progressive decline of the salt in the soup, in collaboration with official institutions, food handlers and consumers. To determine the salt concentration, the soup samples were collected and sent to the Public Health Laboratory of Aveiro.

**Results:** After the intervention, the education and training of food handlers working in collective canteens have contributed to a reduction in the salt (before the intervention:  $x = 0.52$  g salt/100 g soup;  $SD = 0.15$ ; after the intervention:  $x = 0.48$  g salt/100g soup,  $SD = 0.15$ ), with a statistically significant differences ( $p = 0.002$ ). To reduce the salt in the soup it was made a gradual reduction and herbs were used to complement the lack of salt; it is noteworthy that there was a good acceptance of the stakeholders.

**Conclusions:** This Program has proved to be effective in reducing salt in soup of collective canteens. Therefore, it is expected the continuity of the Program to be able to reduce the salt in the soup up to 0.2 g salt/100 g soup and this reduction can be generalized for other kind of food.

**Keywords:** Salt reduction. Social canteens. School canteens.

## EFFECTIVENESS OF A PROJECT TO PROMOTE HEALTHY SNACKS FOR THE CHILDREN IN PRIMARY SCHOOL

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**Introduction:** In school-age child nutrition is very important. The family's role in food and nutrition education is unquestionably. The school can provide a context of formal learning complementary to the family in improving the quality of school lunches.

**Objectives:** Improve the food quality of the snacks for the children in primary school.

**Methods:** The evaluation focused on monitoring food quality of the snacks, which are categorized into: 0 - not brought snack; 1 - unhealthy snack; 2 - healthy snack (it has 2 of the 3 food groups and does not contain unhealthy foods); 3 - very healthy snack (consisting per 1 of the group of cereal, 1 of the group of fruits and 1 of the milk and derivatives group, and contains no unhealthy foods). The evaluation was done in two weeks (beginning and end) of the 1st and 3rd period, and a week in the middle of the 2nd period. In each week 3 ratings were made on: Monday, Wednesday and Friday.

**Results:** We found that the intervention carried out with parents, teachers and students throughout the school year, was effective in improving the quality of school lunches of children attending primary school ( $p = 0.000$ ). In the first evaluation moment, children had an average of a snack between unhealthy and healthy ( $x = 1.63$ ,  $SD = 0.62$ ) and at the end of the school year an average of a snack between healthy and very healthy ( $x = 2.4$ ,  $SD = 0.57$ ). There was a high index of satisfaction with the project by stakeholders.

**Conclusions:** The results suggest the need to implement continuous projects promoting healthy eating among children of primary school, as a way of promoting healthy behaviors in children and consequently in families.

**Keywords:** Food quality. School lunches. Primary school.

## SUCCESS FACTORS IN FOOD EDUCATION RESEARCH AND INTERVENTION PROGRAMS/PROJECTS WITH SCHOOL AGED CHILDREN

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**Introduction:** In school age years, an adequate diet is a determining factor for health promotion, preventing diseases associated with poor diet habits, such as obesity, one of the main challenges of public health in the 21<sup>st</sup> century. In this sense, WHO elects efficient food education (FE) programs, whose success is attributed to changes in the school environment that include curriculum, long-term intervention and educational community engagement.

**Objectives:** To analyse recent data of the FE research and the results by the implemented programs, as a support for intervention strategies with success potential.

**Methods:** Literature Review about FE's interventions with children and youth in school age (pre-school to Key Stage 3) that cover seven educational programs/projects running in Portugal since 2000 and six action-research projects developed in the same period in other instances.

**Results:** We found enhancement of eating behaviour in long term interventions, integrated (curriculum, parents engagement, students, community and surrounding environment), earlier ones ( $\leq 8$  years), with appeals to peers and adults modelling (teachers and

parents), with direct experience (sensorial experiences, preparing food...) and feeding information.

**Conclusions:** Strategies applied in FE must be intensive and target individual factors (increase the importance given to health and healthy lifestyle benefits); provide opportunities for children to taste new and healthy food and help them develop practical skills (planning/preparing of meals and reading labels); and change environment factors (family, teachers, health professionals and community engagement), exploring the influence of peer groups, and increasing the access/availability of healthy food.

**Keywords:** Food education. Children. Success factors.

## BODY IMAGE AND OVERWEIGHT IN ADULTS OBESE FEMALE - WHAT ABOUT PROMOTION HEALTH EDUCATION?

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Body image and self-concept are of unique importance; with body weight having an impact on peer's acceptance. In this sense, patients with higher BMI have more difficulty in their relations. In fact, the greater the dissatisfaction with their own body (especially in women) the lower is the frequency of sexual activity. A negative body image is often associated with refusal to live sexual experiences, which has as consequences decreased sense of subjective well-being in their lives. This research aimed to know the subjective perception of body image in obese and overweight women and study the association between BMI and body image. An exploratory and quantitative study was developed, based on a sample of 149 women aged between 18 and 65 years. Data was collected in various hospitals from northern and central Portugal having been used for this purpose, the Sexual Satisfaction Index (SSI) and Binge Eating Scale (BES). The results show that 46.6% of participants feel embarrassed about their appearance and weight. Of these, 31.1% feel disappointed and 15.5% feel a lot of shame and contempt, reasons why, these women avoid any social contacts. The perception of body image is all the more negative the greater the BMI. The results of this research, suggest Women with higher BMI seem to be subject to greater mental suffering, because they feel great discomfort in relation to their body. Feelings like shame and and difficulty in socialization are morbidities for subjective well-being. Considering the results and their implications, it suggests an investment in education for health promotion in general and in health food in particular.

**Keywords:** Body image. Overweight. Women. Sexual satisfaction. Portugal. Health education.

## H2Q - "HOME TO QUEIMA" COME AND GO SAFE: PREVENTION OF DRINK-DRIVING DURING ACADEMIC PARTIES

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**Introduction:** The relationship between alcohol consumption and the increased risk of road traffic accidents is well documented (Sanem et al, 2016). In Portugal, despite its significant decrease, driving under the influence of alcohol continues to be one of the major causes

for road traffic accidents. The national authorities consider young people to be a risk group (ENSR, 2013). In this sense, the H2Q project aims at raising awareness among young people toward the adoption of responsible driving behaviors, particularly after academic parties.

**Objectives:** To evaluate the impact of the H2Q project on young people's decision to drive under the influence of alcohol.

**Methods:** The study was conducted in Coimbra, after academic parties, between 4 and 8 am. A total of 55 potential drivers were asked to assess their blood alcohol content (BAC) in the parking lot, before driving. We used breathalyzers, and then developed a brief intervention about the effects of alcohol on driving skills, the legal limit and its implications, and drink-driving offences and penalties.

**Results:** Out of the 55 potential drivers who performed the breathalyzer test, 59.6% had a positive BAC result, and 38.5% had a BAC higher than the legal limit, ranging from 0.40 to 2.06 (severe, very severe, and criminal offenses). Since these results are not compatible with safe driving, a brief intervention was developed to change the potential drivers' intention to drive. All of them decided not to drive and designated another driver (who also performed the breathalyzer test), chose to walk or use public transport, or returned later to reassess their BAC.

**Conclusions:** The knowledge of the blood alcohol content and the development of brief interventions may contribute to change young people's decision to drive under the influence of alcohol.

**Keywords:** Alcohol. Prevention. Driving.

## 5. EDUCATION POLICIES ON SEXUALITY AND SEX EDUCATION

### EDUCATIONAL INTERVENTION PROGRAM FOR UNIVERSITY STUDENTS: ACCESSION PREDICTORS

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**Introduction:** Literature states that longitudinal studies where participation is not mandatory and participants have no immediate benefits are usually subject to compliance failures.

**Methods:** We looked at the predictors of adherence to an intervention program in reducing the risk of HIV infection. Inclusion criteria included being a 1<sup>st</sup>-year-student of the University of Coimbra and 18 to 24 years old. A questionnaire with indicators of UNAIDS was employed. The quantitative study included two stages: in the first one 551 young agreed to complete the questionnaire and participate; in the second stage the survey respondents and those who joined the programme were signalled. Respondents were 18 years old on average, 76.2% female, 63% were Health Sciences students and 69.2% sexually active.

**Results:** The model features 10 independent variables (age, sex, perception of risk, scientific area, time of first sexual intercourse, number of sexual partners over a lifetime and in the last 12 months, knowledge of transmission and prevention). Four independent variables had a statistically significant contribution (perception of risk, scientific area, early sex life and number of sexual partners in the last 12 months). The best adherence predictor was the age of sexual initiation, with odds of 3.63 (OR = 3.63; 95%CI 1.27-8.91), indicating

that students who began their sexual life are 3 times more likely to join a program. The odds ratios of 1.98 (OR = 1.98 ; 95%CI 1.27-2.87).

**Conclusions:** It seems to indicate that the information campaigns, awareness and prevention do not offer an effective model of awareness of the problem and risk perception to students that do not follow courses in health.

**Keywords:** predictors. programmes. HIV. students. odds ratio.

### AFFECTIVE SEXUALITY IN PEOPLE WITH CHANGES OF EATING BEHAVIOR (CEB) - CONTRIBUTION TO A SEXUAL EDUCATIONAL REFLECTION

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The initiation and frequency of sexual activity are indicators of the human beings development, and seem to present with some behavioral changes in people with changes of eating behavior (CEB), replacing the act of eating for sexual pleasure, hiding his sexual desires and escaping enjoy sexuality. This phenomenon should be addressed when considering youth education. Access the epidemiological perspective regarding the initiation and frequency of sexual activity in people with CEB and perceive if it can must or not must be considered in youth sex education programs policies. An exploratory study of quantitative character was developed in a sample of 218 patients of both genders (68.3% female and 31.7% male) aged between 18 and 65 years. Data were collected in several hospitals in the center and north of the country. The Data Collection Tools were the Sexual Satisfaction Index (ISS), (Pechorro et al, 2009) and the Binge Eating Scale (Freitas et al, 2001). In the whole sample were found 78 respondents without CEB and 140 respondents with CEB. Of these, it was verified that both sexual initiation is earlier as more severe CEB level: in moderate CEB is registered a mean of 19 years (SD = 4,161) and severe CEB is 17,7 years (SD = 2.287). As regards the frequency of sexual activity, there are differences: respondents without CEB assume a sexual frequency two to three times per week and with CEB, once or twice per week, independent of whether the CEB is moderate or severe. The phenomenon of CEB took evidence of moderating variable, regarding the initiation and frequency of sexual activity in people with and without CEB. CEB modifies life style development in general and sexual and affective life in particular, relevant fact to be included in youth sex education programs policies.

**Keywords:** Affective sexuality. Eating behavior. Sexual education.

### ADAPTATION AND VALIDATION OF HIV ANTIBODY TESTING ATTITUDE SCALE IN PORTUGUESE

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**Introduction:** The awareness of HIV positiveness is important for the health of the individual and of the community. The identification of HIV antibodies is possible both using conventional lab tests and quick result tests. In the Bibliography it was made clear that there are no instruments in Portuguese to assert the reactions to the HIV quick tests and it was therefore considered it would be useful to adapt and validate a scale in Portuguese, since the language is the official language of 7 different countries and spoken by more than 250 million people.



**Objectives:** The purpose is to validate a version in European Portuguese of the HIV Antibody Testing Attitude Scale.

**Methods:** The study refers to methodological research for the adaptation and validation of an instrument of attitude measurement. A translation and back-translation was prepared and a trial test was then carried out. A total of 317 students, lecturers and co-workers of a Portuguese University was interviewed. Ethical principles were taken into consideration. The pool was obtained in the seven components of the University campus.

**Results:** 3 trials of factorial testing of the main components of 5, 4 and 3 factors. It ended up in a solution of 3 factors that explains 50.82% of the variability. In the analysis of the inter-items correlation values of between -0.018 and 0.749 were observed. The internal consistence reveals an alpha Cronbach coefficient of 0.860 as a whole, and in between 0.865 and 0.659 in the 3 factors.

**Conclusions:** This version of the instrument shows that the psychometric properties allow its use in the Portuguese speaking countries.

**Keywords:** Attitude scale. Validation studies. HIV rapid test. HIV infection.

## HOMOPHOBIC BULLYING IN EDUCATIONAL CONTEXT A MATTER OF PUBLIC HEALTH

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This paper aimed to analyze the phenomenon homophobic bullying in the Latin-American context: Spain and Mexico, its prevalence, consequences and types of aggression. Through an analytical documentary research, it was found that, as international results, educational space is a privileged place for the occurrence of this phenomenon. The results indicate that prevails psychological violence and victimization, stronger in boys than girls; being, however, these behaviors undervalued by educational authorities responsible; there remains a lack of recognition of sexual diversity and homophobia in school spaces as demonstrate the results. The truth is that young people are still educated in an heterosexist and homophobic way. It defends itself at the importance of designing awareness programs for sexual citizenship, to establish protective measures for victims, and also to further investigate this public health issue.

**Keywords:** Bullying. Homophobia. Sexual diversity. Public Health. School.

## 6. ELDERLY HEALTH

### FALLS RISK IN ELDERLY INSTITUTIONALIZED

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**Introduction:** The institutionalized elderly have an increased risk of falling, compared to the non-institutionalized elderly. The issue

of falls should be seen as a serious public health problem, given its consequences and irreversible costs.

**Objectives:** The study aims to assess the risk of falls in institutionalized elderly and determine factors correlated with falls.

**Methods:** The sample is composed by 136 elderly individuals, ages ranging between 65 and 99 years old with a mean age of 85.98 years. Data was collected through an inquiry, which sought to gather clinical and demographic characteristics of the elderly, and learn about the history and circumstances of their falls. The Family Functioning scale was used, as well as the Self-care Liability Assessment Scale and lastly the POMA I (Tinetti Table).

**Results:** The results proved that most of the sample participants gave evidence of fall risk, since approximately 45.6% of the elderly has a high risk of falling, 16.2% a medium risk and 38.2% a low risk. The study also verified that gender and low level of qualifications influence the results, since the female participants as well as a low level of qualifications are related to an increased risk of fall. The same results were found in cognitive impairment, neurological and osteoarticular diseases and a decrease of visual and auditory acuity.

**Conclusions:** Elderly individuals who are more autonomous in walking, bathing and taking medication, are those with lesser fall risk.

**Keywords:** Elderly. Fall risk. Institutionalization. Functional aptitude and balance.

### PERSONAL INVESTMENT AND INDEPENDENCE FUNCTIONAL IN ELDERLY

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**Introduction:** The investment in personal life made by elders to get the best quality of life as well as to keep their functional autonomy is a very important factor that contributes to a successful aging process.

**Objectives:** To identify the perception of the elders about their investment in personal life, to assess the level of functional autonomy. To analyze associations between social/demographic psychosocial and clinical variables. To know the personal investment and functional autonomy.

**Methods:** A transversal, analytical and correlational study of quantitative nature and descriptive profile has been done, with a non-probabilistic sample, constituted by 103 elders from an Institution. To measure the variables a questionnaire has been applied including a clinical, social and demographic characterization, the Familiar Apgar Scale, the Barthel Index and the Personal Investment Scale.

**Results:** Our sample presents high levels of functional autonomy (40.8%) and investment in personal life (89.3%). The variables that are associated with functional autonomy in a significant way are the gender, the place of institutionalization and physical exercise. The ones that are associated with a personal investment are the marital status, the home place, the physical activity and the familiar functionality.

**Conclusions:** In spite of the high age average of our elders, they show much functionality and moderate investment in personal life, however, the variables significantly associated with these constructs are: being male gender, being married or living in union of fact, reside in the home itself, practice regular physical exercise and perceive functional families.

**Keywords:** Elderly. Autonomy. Active aging.

## SECONDARY PREVENTION AND METABOLIC CONTROL AFTER ACUTE MYOCARDIAL INFARCTION - WHICH OUR REALITY?

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**Introduction:** Cardiovascular diseases are the leading cause of death in Portugal. They are also responsible for high health expenditures by the recurring number of prolonged hospitalization and morbidity.

**Objectives:** To determine the adequacy of treatment of secondary prevention of post acute myocardial infarction (AMI) users; To evaluate the metabolic control of these users.

**Methods:** Observational, retrospective and descriptive study. Study period: February 2016. Population: individuals with the diagnosis of AMI belonging to 8 medical files from a family health unit (USF). Variables: demographic, treatment, blood pressure, Body Mass Index, HbA1c, total cholesterol, LDL cholesterol, HDL cholesterol, triglycerides, smoking habits. Data source: clinical process, Data Analysis: Excel®2011.

**Results:** Of the 15,490 users of the USF, 78 (0.5%) had a diagnosis of AMI. They had a mean age of 66.2 years ( $\pm$  13.3) and they were majority males (69.2%). The main identified comorbidities were: hypertension, 66.7%; dyslipidemia, 35.9%; obesity, 24.4%; DM2, 21.8%; smoking, 19.2%; stroke, 12.8%; atrial fibrillation, 10.3%; heart failure, 8.9% and gout, 5.1%. As for therapy for secondary prevention of AMI, it was adequate in 38.5% of users. As for the metabolic control there was: TA > 140/90 mmHg in 15.4% of users; HbA1c > 6.5% in 11.5%; Total cholesterol > 155 mg/dl in 60.3%; LDL cholesterol > 70 mg/dl in 67.8%; HDL < 45 mg/dl in 37.5% of women and < 40 mg/dl in 37% of men triglycerides > 150 mg/dl in 29.5% and BMI > 25 kg/m<sup>2</sup> in 60.3%; in such cases the metabolic control wasn't adequate.

**Conclusions:** The family doctor is, by the continuity of care and proximity to the user, the key element to initiate, coordinate and provide a long-term monitoring in the prevention of cardiovascular disease.

**Keywords:** AMI. Secondary prevention. Metabolic control.

## PROFESSIONAL'S PERSPECTIVES AMONG ELDERLY ADULTS HEALTH LITERACY BARRIERS

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**Introduction:** Research has shown that the quality of doctor-patient communication is critical to health care outcomes and medical adherence. Indeed the communication is a basic competence and a cornerstone in healthcare encounters (van Vliet & Epstein, 2014), however elderly adults don't have enough communications competences in the dialogue with their doctors.

**Objectives:** Our aim was to examine the professional's perspectives among elderly adults health literacy barriers.

**Methods:** For this qualitative exploratory study, semistructured interviews were conducted with a sample of 26 social and health professionals. Discussions about barriers of health literacy were analyzed using thematic analysis.

**Results:** From this study emerged five categories: (1) limitations in selecting the credible health information, (2) difficulties in understanding the medical terminology, (3) predominance of asymmetric communication, (4) difficulty understanding the most appropriate health informants, and (5) infoexclusion.

**Conclusions:** Overall, participants displayed awareness of potential problems related to health information. Findings from this study

point to a set of barriers of communication about health information between older adults and doctors. This study highlights the need for enhanced older communication skills. To address the problem is necessary designed an education intervention to promote elder proactivity and doctor communication skills in medical contexts.

**Keywords:** Health literacy. Barriers. Elderly.

## LITERACY AND EMPOWERMENT OF TYPE 2 DIABETICS ELDERLY

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**Introduction:** Despite diabetes mellitus (DM) has being considered a priority chronic disease, in recent years, the prevalence is increasing worldwide. This impels to the study and intervention focus in the promotion of health literacy and empowerment of the patient, which both are capable of extensive development.

**Objectives:** The aim of this study was to analyze the capacity of self-control, the knowledge and the Quality of Life (QoL), of people with type 2 diabetes, aged 65 or older, enrolled in four Family Health Units, belonging to a Regional Grouping Center.

**Methods:** An exploratory and descriptive-correlational study was applied to 137 sample subjects, that responded a sociodemographic and clinical characterization questionnaire and the validated versions for the Portuguese population of the DES-SF, DKT and the EQ-5D.

**Results:** The results point to: a high perception of capacity for self-management of DM, associated with a poor general knowledge about the disease, particularly in relation to food, HbA1c and complications of the disease, with mean  $\pm$  SD scores of  $3.52 \pm 0.69$  of DES-SF,  $54.34 \pm 17.72$  of DKT and  $0.63 \pm 0.30$  of EQ-5D. We also detected, a positive and significant correlation between the ability to control the DM, the knowledge and the QoL. The male participants, aged less than 75 years, with qualifications higher than basic education, duration of disease greater than 5 years and no DM complications had better scores on the three scales in the study relatively to the other groups. Although not always find statistically significant differences.

**Conclusions:** The review's conclusions point to peculiarities in the empowerment perception and knowledge that should be taken into account in individual therapy education processes and systematized groups.

**Keywords:** Empowerment. Knowledge. Quality of life. Individuals with type 2 diabetes. Elderly.

## RISK OF MALNUTRITION IN A SAMPLE OF COMMUNITY-DWELLING ELDERLY

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**Introduction:** Portuguese studies evidence situations of malnutrition risk among the elderly, with negative implications for the aging process. It's important to increase the diagnosis and to identify

variables that may mediate the process, in order to sustain socio-educational interventions.

**Objectives:** To identify situations of malnutrition or risk and contrast the nutritional status, according to gender, age, household, place of residence and physical activity practice (low, moderate and high) in a sample of Portuguese elderly.

**Methods:** 240 participants (67.5% female), into three age groups (62-69, 70-75 and 76-94 years), particularly come from rural areas (58.3%) and the interior of the country (70.4%). 27.5% live alone and only 14.2% have satisfactory levels (moderate or high) of physical activity (PA). Were used as instruments, the MNA (nutrition level), the Baecke (PA) and a characterization questionnaire.

**Results:** There is high risk of malnutrition (> 40% in most groups). Only the older (76-94), the males, those not living alone and those with better PA levels have lower percentages of risk, but  $\geq 37.5\%$ . The highest percentage of individuals at risk (46.9%) refers to those living alone. Also, this is the most undernourished group (7.8%), followed by the older people (6.9%). The independent variables, by themselves, don't discriminate the malnutrition risk.

**Conclusions:** The risk of malnutrition, corroborating other Portuguese studies, permeates all groups and reaches worrying levels, like a "condition" of the elderly. The results refer to the urgent and concerted need for multidisciplinary socioeducational intervention, directed to the elderly and carers, in order to reverse the negative impact on aging process and quality of life in this population.

**Keywords:** Community-dwelling elderly. Risk of malnutrition.

## OVERLOAD IN INFORMAL CAREGIVERS OF ELDERLY OVER 65 YEARS

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**Introduction:** Studies show that about 40% of individuals aged 65 and older need some kind of help to perform at least one task such as shopping, take care of finances, prepare meals and clean the house.

**Objectives:** Characterize the informal caregivers of people over 65 years in the community and relate some variables with overload.

**Methods:** Quantitative study, cross-sectional correlational in a northern region of Portugal. The sample was not intentional probabilistic formed in snowball by 1,342 people over 65 years of which 81 had caregivers. Data collection was conducted from December 2014 to February 2015, using a questionnaire consisting of sociodemographic questions and QUASCI-VR scale (Martins et al., 2014) that evaluates the effects on welfare in the medium and long deadlines by up caregiver.

**Results:** Sample consists of 91.4% of female caregivers, with an average age of 53.6 years, 75.3% are married. 92% have a family relationship with the person who care and 79% co-inhabit with him. Nursing is partial assistance in 48.1% of supervision and guidance in 30.9% and 13.6% replacement on tasks. There is a statistically significant difference between the level of education and subscale satisfaction with the role and the family  $p = 0.011$ . There is a correlation between the provision of care hours and the subscale emotional overload  $r = 0.317$   $p = 0.011$ . There is a negative correlation between education level and the sub-scale reactions to  $r = -0.251$  requirements  $p = 0.029$ .

**Conclusions:** The family are the main informal caregivers in our study there is a higher media overload in men. Although our results reflect a local reality these contributions to the characterization of informal caregivers and care of the elderly over 65 years in the community.

**Keywords:** Caregivers. Old age assistance. housing.

WITHDRAWN ABSTRACT

## LIFE QUALITY AND THE WELLNESS IN ELDERLY. STUDY CASE OF THE CASA DO MENINO JESUS

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This research aims to present an analysis on the absence of innovative social responses to elderly, taking into account the need for stimulation of this population segment. Our main goal is not only a theoretical approach about the issue of elderly, but also present a study on the potentialities of the Casa do Menino Jesus, our case study, can apply for funding of a multisensorial stimulation response for elderly. This paper is divided into three parts: theoretical framework and characterization of our social organization, according to an exploratory research, structuring a strategic plan of the organization, through field research, and as final result, to present a proposal for funding and implementation of an innovative social response, according to the underlying legislation to Portugal 2020. The sample is focused on the population of Mirandela municipality. To conclude, it is important to make this local approach, because of the increasing number elder people with dementia problems and specific needs of treatment and stimulation.

**Keywords:** 3<sup>rd</sup> Sector. Life quality. Strategic management. Social responses to elderly.

## ABUSE AND NEGLECT OF ELDERLY AND INDEPENDENCE IN INSTRUMENTAL AND BASIC ACTIVITIES OF DAILY LIVING

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**Introduction:** One of the known risk factors for abuse and neglect of the elderly is the decrease in functional capacity, contributing to self care dependency of instrumental activities of daily living and basic activities of daily living (OMS, 2015).

**Methods:** Cross-sectional study with non probabilistic sample of 333 elderly, performed in a hospital, homes and day centers for the elderly. The data collection protocol included socio-demographic data, Questions to elicit Elder Abuse (Carney, Kahan & Paris, 2003 adap. By Ferreira Alves & Sousa, 2005), scale of instrumental activities of daily living Lawton and Brody and Katz index to assess the level of independence in activities of daily living.

**Objectives:** To evaluate the association between abuse and neglect in the elderly, instrumental activities of daily living and level of independence in activities of daily living.

**Results:** Emotional abuse is significantly correlated with the level of independence in activities of daily living ( $p = 0.000$ ), older people with less independence tend to have higher levels of emotional abuse. The total abuse is significantly correlated with the levels of independence in activities of daily living ( $p = 0.002$ ), less independent elderly tend to suffer greater abuse and neglect. There were no statistically significant associations between abuse and neglect and instrumental activities of daily living.

**Conclusions:** The less independent elderly are more vulnerable to situations of abuse and neglect, being more exposed to emotional abuse. These results point to the need for health professionals/ nurses develop prevention interventions, including strategies to support carers and early screening in less independent elderly.

**Keywords:** Elder abuse. Negligence. Nursing care. Frail elderly.

## PREVALENCE OF SURGICAL WOUND INFECTION AFTER SURGERY FOR BREAST CANCER: SYSTEMATIC REVIEW

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**Introduction:** Breast cancer is one of the most common malignant pathology in European countries, as Portugal, where annual incidence is around 90 new cases per 100,000 women. Breast surgery is the usual treatment for this pathology, however such procedure can be complicated by the infection of surgical site.

**Objectives:** To know the prevalence and determinants of surgical wound infection after breast surgery.

**Methods:** We conducted a systematic review by searching of the Web of Science electronic database for articles published over the last six years in developed countries. Over three hundred citations were obtained and after excluding citations with reasons, five articles met our inclusion criteria and were included in the present review.

**Results:** Prevalence of surgical wound infection varied across studies between 0.1% and 12.5%. Bilateral mastectomy is associated with higher prevalence of wound infection than unilateral mastectomy (3.6% vs 3,3%), lumpectomy with immediate breast reconstruction (IBR) is related with higher frequency of wound infection

than surgery with no IBR (0,5% vs 0,1%), also, mastectomy with IBR is associated with higher prevalence of wound infection than mastectomy with no IBR (1,5% vs 0,3%) and breast surgery followed by axillary lymph node dissection is related with higher prevalence of wound infection than surgical procedures with no axillary lymph node dissection (2,82% vs 1,66%).

**Conclusions:** Nurses that provide post-operative care to women after breast surgery should be aware about risk of wound infection, particularly after more invasive procedures.

**Keywords:** Breast surgery. Surgical wound infection. Prevalence of infection. Post-operative complication.

## THERAPY ADHERENCE IN COMMUNITY ELDERLY FROM INNER AND COAST COUNCILS OF NORTHERN PORTUGAL

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**Introduction:** Global aging associated with chronic comorbidities leads to increased simultaneous use of drugs and complex drug therapies. Therapy adherence is essential to ensure the effectiveness of therapeutic and control of chronic diseases in elderly.

**Objectives:** To estimate the prevalence of therapy adherence and associated factors in community elderly from inner and coast councils of northern Portugal.

**Methods:** This cross-sectional and correlational study was based on a questionnaire, with MAT scale (measure of adherence to therapy) validated for the Portuguese population (Delgado & Lima, 2001), applied by interview to 384 elderly ( $\geq 65$  years) living in the community in northern Portugal councils of Esposende, Guimarães and Lamego. It was used descriptive statistics and Chi-Square test, with a significance level of 5%.

**Results:** The sample consisted mainly of females elderly (60,7%), with age mean of 75.8 years old, while 47.7% was between 65-74 years. On average, 4.99 different drugs are administered per day, being medicines that act on the circulatory system the most prescribed. The prevalence of therapy adherence was 86,6%. Elderly people who have help with medication, are those who most adhere to drug therapy ( $p = 0.035$ ).

**Conclusions:** This study shows a considerable prevalence of therapy adherence. Having help with medication seems to be associated with better therapy adherence.

**Keywords:** Community elderly. Elderly. Therapy adherence.

## ATTITUDES TOWARDS TO SEXUALITY AMONG OLDER PEOPLE: A QUALITATIVE RESEARCH

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**Introduction:** Sexuality is an important component of human being and contributes to the quality of life. Sexual activity depends on attitudes toward sexuality. Although this is an important issue, the research on attitudes toward sexuality among older people has been a neglected topic.

**Objectives:** To understand attitudes towards sexuality among older people and to assess the relationship between sociodemographic factors and such attitudes.

**Methods:** This cross-sectional study was conducted on 35 community-dwelling older individuals ( $\geq 65$  years old; 66% were men). Data collection was based on a questionnaire which includes three components: (1) Questions on sociodemographic characteristics; (2) A 13-item scale assessment of attitudes toward to sexuality (SAATS) scored from 0 to 52, being higher values related with positive attitudes; and (3) an open question “in your opinion what is sexuality?”.

**Results:** In this sample 40% of participants ( $n = 14$ ) reported that there is no sexuality among older people. For the whole sample, the mean score of SAATS and respective standard deviation ( $\pm$  SD) was 28.9 ( $\pm 6.63$ ). There were no differences in the mean score of SAATS by gender, but such score was lower among oldest people ( $p = 0.006$ ), among individuals reporting less schooling years ( $p = 0.001$ ) and among those with no companion ( $p = 0.012$ ). In regards to the qualitative analysis of the open question, the main answers obtained fall into the affective dimension, with the majority of participants reporting that sexuality is “love”, “respect” and “tenderness”.

**Conclusions:** Oldest people, those with lower education level and those with no companion presenting more negative attitudes towards to sexuality. Among older people sexuality is mainly based on the affective dimension.

**Keywords:** Sexuality. Attitudes. Older people.

## THE “INTERACTIVE EDUCATIONAL TECHNOLOGIES FOR FAMILY CARERS: KNOWLEDGE AND SKILLS DEVELOPMENT

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**Introduction:** In recent years, due to demographic change and the aging population, there are changes in the adopted policies paradigm, including the use of Information and Communication Technologies. The current scientific scenario points to an increasing use of educational platforms aimed at health education for citizens.

**Objectives:** The research described here is focused on the design and evaluation of an interactive educational technology and aims to support family caregivers who care for dependent persons.

**Methods:** After conducting an exploratory study of 12 family caregivers and another one with 14 nurses who helped to identify strategies and more relevant content to be included in the tool, we developed a quasi-experimental non-randomized study with a pre-post test design. To do this, we used a convenience sample of 65 family carers who care for dependents identified in two medical services of a hospital. To evaluate the effectiveness of interactive educational technology we proceed to the application of a set of instruments that assessed the knowledge and satisfaction with the use of technology.

**Results:** The analysis performed by comparing with the control group showed a statistically improvement in knowledge of the experimental group using the technology. In the control group, the knowledge did not vary in both moments of evaluation. The family carers made a very positive assessment of the use of technology, consider it useful, stimulating and easy to use, meeting the learning needs.

**Conclusions:** The implementation of educational technology for family caregivers in the clinical setting, proves the effectiveness and their contribution in the development of knowledge of family caregivers. This technology successfully met the technical quality and learning needs of caregivers, it is considered easy and stimulating.

**Keywords:** Caregivers. Nursing. Educational technology.

## CHARACTERIZATION OF MEDICATION USE AMONG THE ELDERLY OF NORTH PORTUGAL

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**Introduction:** Aging associated with chronic comorbidities leads to polypharmacy, but the complex therapies in elderly can lead to therapy non-adherence, increasing costs and several health risks.

**Objectives:** To characterize medication use and related factors among northern Portuguese elderly.

**Methods:** This cross-sectional population-based study was centered on a structured interview to 442 elderly ( $\geq 65$  years), non-probabilistic sample by convenience, at home and institutions in northern Portugal. It was considered as polymedicated seniors taking  $\geq 5$  drugs daily. Beers criteria (2012) were used to evaluate the potentially inappropriate medication use. It was used descriptive statistics and univariate and multivariate statistical analysis, with a significance level of 5%.

**Results:** The sample consisted mainly of females (56.6%), aged between 65 and 101 years (mean  $76.84 \pm 8.07$ ). The prevalence of medication use was 97.3%. Most elderly are polymedicated (54.1%), on average 5.15 different drugs are administered per day. The most commonly prescribed groups were: cardiovascular drugs (82.8%), central nervous system agents (54.2%) and drugs with an effect on the digestive tract (40.9%). According to the Beers criteria, 53.5% of seniors taking potentially inappropriate medication. Polypharmacy was positively associated with living in littoral sub-region ( $p < 0.001$ ), having a reasonable ( $p = 0.002$ ) or poor health self-perception ( $p < 0.001$ ), self-reported chronic diseases ( $p < 0.001$ ) and number of doctors ( $p = 0.003$ ).

**Conclusions:** Results shows a high proportion of medication use among the northern Portuguese elderly, including potentially inappropriate. The risk of polypharmacy is related to coastal region, perception of reasonably/poor health, chronic diseases and the number of doctors.

**Keywords:** Beers criteria. Elderly. Medication. Polypharmacy.

## 7. FAMILY HEALTH

### THE IMPORTANCE OF FAMILY IN NURSING PRACTICE

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**Introduction:** Family nursing is crucial because health and illness are family events<sup>1</sup>, so this issue matters in nursing care. Family health care nursing is an art and a science that has developed as a way of thinking about families and working with them.

**Objectives:** The aim of this study is to evaluate the importance of family in nursing care.

**Methods:** Cross-sectional study applied to the Portuguese nurses, through a survey of the importance of families in nursing care (IF-

CE-AE). The results were obtained using descriptive statistics. All the ethical principles were respected.

**Results:** The scale obtained for this sample had a Cronbach's alpha of 0.904. The study included 71 nurses aged between 22 to 58 years old (mean = 41.93, SD = 8.52). Most of them were married (75%), 66.2% were graduates and 31% were teachers. The majority (75%) worked in primary health care units. With regard to the agreement of the importance of families in providing nursing care, the answer in global terms ranged from "strongly disagree" to "completely agree". 75% of the results is above the answer "I agree". The different factors that subdivided the scale also had equal weight. The factor "family as a burden" was the one who got lower score.

**Conclusions:** The nurses in this study consider important the family involvement in the nursing care they provide.

**Keywords:** Family. Nursing care.

### INTERGENERATIONAL INFLUENCE IN NEWBORN CARE: A QUALITATIVE STUDY

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**Introduction:** The birth of a child requires the use of critical support resources to face the difficulties and to help parents adjust to the new situation. The family, which owns common sense knowledge, seems to play an important role in the care of newborns.

**Objectives:** To know which intergenerational family knowledge that interfere with newborn care and understand the meanings of the developed health practices.

**Methods:** The study was descriptive exploratory with a qualitative approach, carried out in three municipalities of Braga with 50 postpartum women. The data was collected through semi-structured interviews conducted six weeks after childbirth in the domicile of the postpartum women. The data was submitted to content analysis based on Bardin (2009).

**Results:** The interviewee 'speeches recognize that the women who participated in the study, whether from urban or rural areas, use a whole set of knowledge and family practices, which we may call home medicine, as complementary or alternative use to that preconized by health professionals health in connection to consultation. The information received by postpartum women particularly target the "care for the newborn," such as the first bath at home, the care of the umbilical stump or measures to minimize cramps. The received cares were essential to maintain the quality of life and mental health of the women, and to address, as appropriate, the new situation of being a mother, by increasing its confidence levels.

**Conclusions:** The results demonstrated the social and cultural role of the family in the care of the newborn in order to promote the health of mother and child. It would be important to include the family in the care throughout the pregnancy postpartum process.

**Keywords:** Care. Newborn. Family. Cultural diversity.

### FAMILY RESILIENCE IN THE CONTEXT OF DEPENDENCY

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**Introduction:** Resilience is a dynamic process that results in a positive adaptation in great adversity contexts. The study of family resilience arises given the importance of the individual's interac-

tion with the emotional and social environment, the study of family characteristics susceptible to contribute to family resilience.

**Objectives:** To know the family resilience level dependent; know the person familiar characteristics dependent that relate to their level of resilience; and know the characteristics of the dependence of the person that relate to family resilience level.

**Methods:** This is a quantitative and descriptive correlational study. Data were collected from a non-probabilistic sample of 36 accidental family caregivers of dependent person who resorted to outpatient medicine or have been admitted to medical services and surgery Hospital Cova da Beira, through form.

**Results:** We found that the relatives of dependent people mostly have low levels of resilience and medium and high level of self-esteem. Are predominantly females, aged under 56, children (as), nuclear families, retirees(the)/retired(as) and unemployed(as). Mostly, the person is totally dependent for more than 24 months and the dependence of the reason has to do with pathologies associated with human aging process. We found the existence of relationship between family type and level of resilience; between self-esteem and resilience level and between time dependence and family resilience level.

**Conclusions:** It is vital to health professionals, including nurses, encourage the family caregiver and compliment your care, be attentive to your needs and teach you how to take care of your family dependent.

**Keywords:** Resilience. Family. Dependency. Self esteem.

### PARENTING EVIDENCE-BASED PROGRAMS (EBP): A STUDY WITH PORTUGUESE PARENTS

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**Introduction:** It is apparent that improving parent and child relations should be a major goal of any parental EBP. In other words, parents who care and support their children and have a good relationship and involvement are more willing to invest time in monitoring and supervision them and communicating their expectations that their children.

**Objectives:** To examine the Strengthening Families Program (SFP) pre-posttest outcomes for Portuguese parents.

**Methods:** The outcomes were compared using SFP 6-11 Years data with Portuguese families (n = 41) using a quasi-experimental 2-repeated measures (pre-to posttest). Results on 5 parents outcomes were measured using the standardized SFP instruments and analysed using 2-repeated measures (pre-to posttest).

**Results:** 100% of the five outcomes variables have shown significant improvements (p < 0.05). The largest amount of positive change was found in parental supervision (d. = 0.62) and the smallest changes in parenting skills (d. = 0.38).

**Conclusions:** Evidence-based prevention approaches, such as SFP, should be supported because they have enduring impact on increased parenting outcomes.

**Keywords:** Parenting EBP. Portuguese parents. SFP.

### CHILDREN RIGHTS: PERSPECTIVES OF DIFFERENT GENERATIONS

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**Introduction:** The United Nations General Assembly adopted the Convention on the Rights of the Child- Magna letter for children

around the world- On November 20, 1989, and the next year, the document was made official as international law.

**Objectives:** The present investigation proposes to analyze and understand the perception of children and adults, ranging from different age groups age on the rights of children and their order of importance.

**Methods:** It is a quantitative study, of exploratory nature. Through a questionnaire of preferred order response, we selected ten rights random from Convention on the Rights of the Child UNICEF, where it was asked, lists that are one to ten, the rights more important, where 1 was the most significant and 10 the less significant. There were submitted 151 inquiries, in the age groups between six and sixteen years, referenced, in the stages of psychosocial development proposed by Erikson, from the 4<sup>th</sup> to the 7<sup>th</sup> age;

**Results:** it was found that in total (either for children or for adults), it was unanimous that growing up in a healthy family and to have a home it was the most important right. In relation to the least important item, it wasn't possible to take general conclusions being that the information gathered was very scatter through the different ages.

**Conclusions:** It is essential to give to know and remember the children's rights both to adults and for children, to open conscience on society, mainly on what it comes to children that are excluded from this essential rights. It is therefore of great importance, emphasize the universality of rights.

**Keywords:** Rights. Children's. Family.

## RESILIENCE OF FAMILIES WITH PATIENTS HOSPITALIZED

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The disease in a family member involves a transformation in the family concern and bringing suffering to all members. The onset of the disease, and subsequent hospitalization compromise the patient's stay in its natural environment, particularly in the family. Resilience is considered fundamental in the personal development and health. It refers to the process that results from the interaction of the individual with his family, social and cultural environment. Emerges from the confrontation with adversity and not trail in relation to it. The conducted study aimed to assess the resilience of families with hospitalized patients. This was a descriptive quantitative study, with a sample of 89 families of patients hospitalized in a medical service and a Continuing Care Unit. The instrument used for data collection was a questionnaire containing questions and scales in order to measure the functionality and the family's ability to cope with adversity. According to our study the relatives of hospitalized patients are mostly high resilience (52.8%) and average resilience (47.2%). None of the surveyed families had low levels of resilience. Considering the assessment of family functionality, we found that 77.5% of families are highly functional, 15.8% had mild dysfunction and 6.7% severe dysfunction. Considering the hospitalization as unexpected family crisis nurses need to be vigilant in order to stimulate resilience in these families that are support for the patient and themselves need to feel confident to help overcome this difficult time.

**Keywords:** Resilience. Hospitalization. Family functionality.

## EXPERIENCIES OF FAMILY CAREGIVER OF PERSON WITH SCHIZOPHRENIA

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**Introduction:** Schizophrenia is a mental illness characterized by alteration of contact with reality, hallucinations, delusions, abnormal thinking and changes in social and work functioning.

**Objectives:** To know and understand the experiences of families caregiver of person with schizophrenic.

**Methods:** Phenomenological study of qualitative approach, whose participants were members of families of Sever do Vouga Municipality, who have in the family a person with schizophrenia. For data collection we used a semistructured interview, in order to understand the family dynamics.

**Results:** Of experiences emerged as important aspects: knowledge of the disease, in order to better understand the behavior; the support network, family, social and health; changes in family dynamics, to adjust to the sick person's needs; the ability to care, not always present but especially worrying prospect of a future; the prejudice; change of interpersonal relationships; the isolation that families; the burden of caregiver emerging of constant care and prolonged in time.

**Conclusions:** The family caregivers (FC) sought to inquire about schizophrenia, once faced with changes in their family's behavior wrapped symptoms they did not dominate. After obtaining knowledge about the disease, they understand better what was happening with the sick person and thereby made more responsibility for care. The cases of physical violence by the patient had a negative impact on the family, passed through the family support network, health and social. The emotional and family overload are mentioned by familiar caregiver as surmountable using various coping strategies.

**Keywords:** Family. Nursing. Schizophrenia.

## PARENTING. DISABILITY AND SATISFACTION WITH SOCIAL SUPPORT

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**Introduction:** In the context of the major issues on adult people with disabilities, we found that there are few studies on family life and specifically on the potential and difficulties in the exercise of parenting, as well as the importance of social support in parenting tasks.

**Objectives:** To analyze the relationship between self-parenting efficacy and parental support at parents with disabilities; to outline family intervention strategies.

**Methods:** This is an exploratory and descriptive study, which used a non-probabilistic sample and convenience, composed of 30 parents with sensory disabilities. The gathering instruments were the Self-efficacy Parental Scale (Brites, 2010) and the Social Support Satisfaction Scale (Ribeiro, 2011).

**Results:** Regarding parental self-efficacy and its dimensions, we found that the results are lower compared to the results obtained in other studies with samples of parents without disabilities. With regard to satisfaction with social support, the values were high, particularly, in the dimension of satisfaction with family support. We also found positive and significant correlations between the overall results of parental self-efficacy and satisfaction with social support, as well as among most of the dimensions of the scales.

**Conclusions:** The analyzes presented suggest that this line of research on the issues of the right to a full family life deserves further deepening specifically know the barriers and outline socio-educational support strategies to facilitate the self-determination of people with disabilities. Despite the Convention on the Rights of People with Disabilities (2006), ratified by Portugal, enhance the right to a full family life, there is still a long way to go in this area.

**Keywords:** Disability. Parenting. Social support.

### CAREGIVERS OF PERSON WITH PRESSURE ULCER: THE PRESSURE BEYOND THE WOUND...

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**Introduction:** Being a caregiver causes changes in everyday life because of the need to learn how to take care and at the same time developing his/her adaptation process. This situation has an impact in quality of life and burden but also in individual and familiar dynamics. The pressure ulcers are chronic wounds that demand a special attention by the caregiver for ensuring a good healing process, as well as a specialized care.

**Objectives:** To analyze the variables that influence the quality of life and burden among these informal caregivers.

**Methods:** Descriptive-correlational and cross-sectional study. Data collection with SF-36 scale and Zarit Burden Interview, both validated in Portugal. All ethic aspects were assured. The present study has a sample of 145 informal caregivers. This corresponds to 74.2% of the total number of people attending pressure ulcer patients. The most recurrent profile of caregivers from our sample was: females between 45 and 64 years old, daughters of people with pressure ulcer that give care for more than 5 years. They present lower level of quality of life and 63.4% of them show burden. The quality of life is affected by: the amount of pressure ulcers the patient has; unemployment; amount of time as a caregiver; patient positioning's difficulty; treatment required by the type of wound. The burden increases proportionately with the amount of pressure ulcers that the patient has, with unemployment and inexistence of financial income, and with a lower quality of life perception.

**Conclusions:** The informal caregivers of people with pressure ulcer show lower quality of life and higher level of burden. Both feel (positive or negative) are influenced by the patient's pressure ulcer factors and their own demographic and professional status.

**Keywords:** Caregivers. Pressure ulcer. Quality of life. Burden.

### PARENTAL FUNCTIONING AND SOCIAL SUPPORT IN FAMILIES OF CHILDREN WITH AUTISM SPECTRUM DISORDERS

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**Introduction:** Research on the functions of social support in families of children with disabilities in the context of inclusive settings, emphasizes that this concept influence various dimensions of parental and family functioning.

**Objectives:** This study aims to analyze the influence of the perception of social support in the parental functioning and development trajectories of families in the context of adaptation to disability and incapacity.

**Methods:** It is a qualitative and comprehensive study of the phenomena. We formed a convenience sample of 10 caregivers of children with ASD. Data collection instrument was a semi-structured interview that covers socio-demographic aspects and other information related to the past, present and future of parental and family development.

**Results:** The analysis of parents discourses suggests a high parental involvement in educational and therapeutic processes, good levels of formal and informal social support, the use of coping strategies focused on solving the problems and positive perceptions on children and on parenting changes; despite these results, speeches indicate a high parental stress resulting from requirements and barriers in the management of daily life. Caregivers are linked to support institutions and reveal close relationships with other parents.

**Conclusions:** The perception of social support emerges as a relevant construct, which must be considered in the context of intervention with families of children with autism. In this sequence, it is proposed areas, measures and actions in the field of family intervention.

**Keywords:** Disability. Autism. Social support. Adjustment.

## 8. HEALTH AND CITIZENSHIP

### CARE HEALTH TO DEAF PERSON WHO USES THE SIGNS OF LANGUAGE IN THE PERSPECTIVE OF THE DEAF

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**Introduction:** Deaf people demand for health services under the Unified Health System - SUS and when accessing to these services, the deaf comes across communication barriers in the process of interaction with healthcare professionals. In the deaf community, the Brazilian Sign Language - Libras is of a visual-motor mode used as a means of communication and expression by communities of deaf people in Brazil, and therefore a linguistic system that coexists with Portuguese language.

**Methods:** A qualitative study of exploratory and descriptive approach that used to collect data, semi-structured interviews about professional communication versus patient in health services. There were nine deaf individuals who were subjects of this research and were fluent in Brazilian Sign Language in the age group 18-25 years. The ethical aspects were respected.

**Results:** For the deaf, communication barriers happen, and the use of technical as lip reading and writing is used by deaf and professionals, but are largely not made effective as in the deaf community as this is characterized as a second language.

**Conclusions:** Taking into consideration that the process of communication are effective means to facilitate access to information to health services, it only becomes effective once would include the specificities of each part of the population, in this case deafness. Therefore, the perception of these users in health care makes it necessary in their native language, which is sign language.

**Keywords:** Access to Health Services. Health communication.



## CHARACTERIZATION OF THE HEALTH SITUATION IN A NORTHERN REGION COMMUNITY (CONTINENTAL PORTUGAL)

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**Introduction:** When preparing a health diagnosis, the Specialist Community Nurse should identify the health needs of a group or a community (Regulation 128/2011). Health Care Planning consists in rationalizing scarce resources to achieve the established objectives, so that priority health problems can be reduced (Imperatori & Giraldes, 1993).

**Objectives:** To provide updated information on the health problems of a community.

**Methods:** This study is part of a Master's Degree Course. It had the duration of 9 weeks. A descriptive design was employed. Demographic, socioeconomic, environmental and impact indicators were analysed. Data concerning the mortality and morbidity will be presented. The data sources were: DGS, INE, ARS Norte and ACeS.

**Results:** According to the INE, in 2014 the resident population was 9,936 inhabitants. In 2015, the infant mortality was zero and the overall mortality was 11.5%. As far as the age-specific mortality rate is concerned, it was higher among individuals aged 75+, 64.7 (/1,000). In 2014, circulatory system diseases (31.3%) and malignant tumors (20.0%) were the diseases that contribute the most to the mortality rate. In terms of morbidity in the Primary Health Care (2014), lipid metabolism disorders (41.9%), hypertension (28.8%), depressive disorders (18.1%), overweight (11.8%) and obesity (10%) were the most listed causes of illness. Apart from the overweight percentage, all these values were higher than those presented by the ACeS, ARS and Continental Portugal.

**Conclusions:** Through these indicators we are able to identify the most common health problems in this community and, consequently, to define a Local Health Plan that targets health gains.

**Keywords:** Morbidity. Mortality and health diagnosis.

## KNOWLEDGE OF BASIC LIFE SUPPORT FOR CITIZENSHIP

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**Introduction:** The immediate start of basic life support (BLS) can increase survival in cases of PCR. Although the factors influencing the prognosis depend on the cause of the arrest, the speed and quality of BLS maneuvers are key (Shuster et al, 2010; Carrera et al, 2004). For these authors the effectiveness of resuscitation is proportional to the time elapsed between the PCR, the start of the BLS maneuvers and the competence of the person.

**Objectives:** To characterize under the socio-demographic point of view and assess your knowledge of SBV in employees of the Municipality of North Country.

**Methods:** Descriptive cross-sectional study. Data collection took place in 2016 through a questionnaire for sociodemographic and evaluation of knowledge about SBV. Savvy was obtained informed consent from participants and guaranteed procedures for voluntary participation and confidentiality of information.

**Results:** Participants in the study 106, mostly female 74 (69.8%), mean age of 44.0 (± 9.6) years. As for the knowledge of the se-

curity situation in the victim approach, only 37 (34.9%) answered correctly. The majority (100 to 94.3%) showed meet the European number Medical Emergency for help. With regard to knowledge: the sequence of resuscitation maneuvers relationship between chest compressions and ventilations and the procedure for implementing the compressions correctly answered 12 (11.3%), 15 (14.2%) and 9 (8.5%) respectively.

**Conclusions:** The suppression of blood flow causes brain damage and given that most participants showed knowledge gap to start resuscitation or CPR is essential to empower citizens to the start of the BLS maneuvers.

**Keywords:** Knowledge. Basic Cardiac Life Support.

## LIFE QUALITY AND THE WELLNESS OF LOCAL POPULATION AND THE SUSTAINABILITY OF SOCIAL ORGANIZATIONS. STUDY CASE OF A FOUNDATION

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This research aims to present an analysis on the absence of innovative social responses related with continuing care, taking into account the need to answer to all kind of social needs. Our main goal is not only a theoretical approach about the social challenges and social policies, but also present a study on the potentialities of the Foundation, our case study, can apply for funding of an UCC (Continuing Care Unit) in order to meet the needs of the local population on one hand, and on the other, in order to contribute to the self-sustainability of the Foundation. This paper is divided into three parts: theoretical framework and characterization of our social organization, according to an exploratory research, structuring a strategic plan of the organization, through field research, and as final result, to present a proposal for funding and implementation of an innovative UCC, according to the underlying legislation to Portugal 2020. The sample is focused on the population of Sátão municipality. To conclude, it is important to make this local approach, because of the increasing demand for this kind of caring services.

**Keywords:** 3<sup>rd</sup> Sector. Life quality. Strategic. Management. Innovative social responses.

## 9. HEALTH AND ENVIRONMENT

### INDOOR AIR QUALITY IN BARS AND RESTAURANTS

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**Introduction:** Given that the current population spend most of the time indoors, either at work, or at home, the existence of a good air quality is essential to the health and well-being of the population. Exposure to pollutants inside, considering the time remained in these areas leads to health problems. Thus, the IAQ comprises the concentration of pollutants that affect occupant comfort, environmental satisfaction, health and labor productivity.

**Objectives:** Assess the exposure to particles in the indoor air of catering and drinking establishments in Mortágua.

**Methods:** The study was analytical, level II, according to the type of observational study and prospective cohort. The aimed was to evaluate quantitatively the concentrations of several environmental pollutants such CO, CO<sub>2</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, CH<sub>2</sub>O, VOC, T° and Hr and compare the values with legislated values and also evaluate the health perception of workers in relation to their exposure to different pollutants. The target population were all the permanent employees at the establishments with a total of 10 employees and were also applied questionnaires to them.

**Results:** With this study can be seen that there are no statistically significant differences between the three schedules measurements ( $p > 0.05$ ), but there were statistically significant differences ( $p < 0.01$ ) in the values of atmospheric pollutants inside the establishments in relation to the values permitted by law: PM<sub>2.5</sub> ( $M = 103.98 \pm SD = 38.67$ ); PM<sub>10.0</sub> ( $M = 205.13 \pm SD = 145.83$ ); CH<sub>2</sub>O ( $M = 0.486 \pm SD = 0.202$ ).

**Conclusions:** The lack of adequate ventilation in the establishments and the reduced space of them, causes a not ideal IAQ for the health of both workers and users. Therefore it is necessary to control the sources of pollution and improve the spaces ventilation systems.

**Keywords:** Indoor air quality. Air quality. Physical-chemical environmental parameters. Environmental pollutants.

### AIR QUALITY IN SCHOOL ENVIRONMENTS - CASE STUDY: ELEMENTARY SCHOOLS LOCATED IN ÁGUEDA

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**Introduction:** Air quality is directly related to the health and well-being of individuals, becoming a factor of great concern. Schools belong to a group of buildings where it is crucial to ensure good indoor air quality (IAQ) as children are more likely to have/acquire certain diseases. Therefore, it is important that healthy working conditions are guaranteed not to compromise performance, well-being and health of students and professionals.

**Objectives:** The greatest concern and goal for this study was to evaluate IAQ among elementary schools located in Águeda and its surroundings.

**Methods:** The type of study was observational (cross-sectional). The type of sampling is a non-probabilistic one and the type of sampling technique is convenience. Temperature, relative humidity, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), particulate matter (PM), organic volatile compounds (OVC) and formaldehyde (CH<sub>2</sub>O) were the main environmental pollutants concerning this case study, measured inside classrooms and its surrounding areas. Individual perception and symptoms were evaluated through questionnaires.

**Results:** Environmental pollutants such as CO, CO<sub>2</sub> and VOC have shown below protection threshold measured whether in old or new schools located in the city center or its surroundings. On the other hand, from all the above, the average of concentration of PM<sub>2.5</sub>, PM<sub>10</sub> e CH<sub>2</sub>O is shown to be above the protection threshold. The sign/symptom that students complained more in schools with old type, was the crisis of sneezing, runny or stuffy nose. Of the 41 students who answered the question, 31.7% reported having this sign/symptom. On the other hand, in schools with the new type, the disease which had more positive cases was the sensitivity to odors, 20.9% of 43 students questioned.

**Conclusions:** Bringing to a conclusion, the most conditioner of IAQ is the lack of ventilation in indoor spaces, and to avoid that we can suggest to open more frequently the windows and to keep the spaces such as classrooms, cafeteria and indoor playground clean.

**Keywords:** Indoor air quality. Air quality. Physical-chemical environmental parameters. Public Health.

### INDOOR AIR QUALITY IN GYMS - A CASE STUDY IN THE COUNTY OF COIMBRA

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**Introduction:** The appearance of the Indoor Air Quality (IAQ) as a Science appear in the 70's due to the energy crisis with consequent construction of private buildings. This vision only gained worldwide relief because of the discovery that a decrease in rates of air exchange in this type of buildings was the main cause for air increased pollutant concentration in the indoor air.

**Objectives:** In this way the present study aimed to evaluate the IAQ regarding the applicable legislation in gyms.

**Methods:** The sample consisted of 3 gyms Coimbra and by 7 workers. In order to achieve this objective, there was an analytical assessment of both physical and chemical parameters and filling questionnaires by the workers. The present study is characterized by being of level II, observational and cross-sectional cohort.

**Results:** Certain parameters showed values higher than the limit threshold stipulated by law, such the case of PM<sub>10</sub>, VOC's and Relative Humidity, whose difference presents a risk to the health of the participants during their physical activity in gyms of the study. Among the parameters with a high significant impact on the health of occupants of gyms, it was the pollutant PM<sub>10</sub> ( $p = 0.004$ ) which demonstrated a greater discrepancy in which the values exceeded on average 33.027 ppm over the limit established by law, which was 50 ug/m<sup>3</sup>.

**Conclusions:** According to the data collected it was possible to verify the importance and relevance of such studies in the future to ensure a better quality of life for all. Regarding the obtained results of the evaluated parameters, it is possible to conclude that the PM 10 (Particulate Matter diameter of 10 mg/m<sup>3</sup>), the VOC's (Volatile Organic Compounds) and Relative Humidity presented risk values concerning workers health.

**Keywords:** Indoor air quality. Physical-chemical environmental parameters. Public Health.

### HOSPITAL WASTE MANAGEMENT IN FIRE BRIGADES

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**Introduction:** According to the Portuguese-Law no. 73/2011 of June 17<sup>th</sup>, hospital waste (HR) are the waste resulting from activities of providing health care to humans or animals in the areas of prevention, diagnosis, treatment, rehabilitation or research and education, as well as other activities involving invasive procedures such as acupuncture, piercings and tattoos. RH of management is a key issue in public health protection. Fire brigades, for the provision of the first health care, are places where there is a significant production of these waste.

**Objectives:** Firemen knowledge assessment in relation to HR, specifically about their separation by the four existing groups and the perception of risk associated with these.

**Methods:** This is a descriptive observational study, where the knowledge that the firefighter's corporations have regard to hospital waste was evaluated. The sample consisted of 74 firefighters. Non-probability sampling type and how technical it was for convenience.

**Results:** There was a marginally significant correlation between years of professional experience and knowledge of content on the separation of HR ( $r = 0.250$ ;  $p = 0.055$ ). However, there were no

significant differences in the level of knowledge about the separation of the HR function in the hierarchical structure of each firefighter took in your corporation (K-W = 6.895;  $p = 0.229$ ). Firefighters trained in HR separation showed better knowledge about good practices compared to other fire without training, although this difference was not significant ( $t = -0.502$ ;  $p = 0.618$ ).

**Conclusions:** It is concluded that there are malpractices in all questioned corporations, multiple failures are sensing-with regard to knowledge of health professionals from corporations in the field of HR.

**Keywords:** Hospital waste. Firefighters. Accidents. Screening. Environment.

### THE IMPACT OF PESTICIDES AT ACTIVITY CHOLINESTERASES IN APPLICATORS

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**Introduction:** Acetylcholinesterase (AChE) is main responsible for the end of acetylcholine action on cholinergic synapses. In the case of butyrylcholinesterase its function is to regulate the activity of acetylcholine in the control of rhythmic movements. Some cholinergic inhibitors are pesticides as organophosphates and carbamates. Their inhibition can lead that individuals suffer of intermediate syndrome.

**Objectives:** To study the changes in the cholinesterase activity in workers that handling pesticides.

**Methods:** Samples from 21 individuals were collected at 2 different stages: before application and during/after application of pesticides. The evaluation of AChE activity in serum was performed according to Ellman's method. The behavior of the participants were achieved by inquiries.

**Results:** The AChE activity in serum (U/L, mean  $\pm$  SD) were 112.64  $\pm$  61.48 in 1<sup>st</sup> phase and 33.34  $\pm$  21.35 in 2<sup>nd</sup> phase. The serum AChE activity between the two phases taking in account the mode of pesticides application showed a significant decrease in the 2<sup>nd</sup> stage, either in performing the application with a tractor ( $p < 0.0001$ ) or with hand spray ( $p = 0.043$ ). Applicators who have expressed changes about their well-being after the application of pesticides revealed decreased values in AChE compared with applicators that did not suffer changes, although this difference was not significant ( $p = 0.200$ ).

**Conclusions:** These results indicate that some applicators are not well protected against pesticides, being recommendable increase the intervention actions in order to reduce exposure to pesticides. In spite of the recognizing of pesticide exposure as a serious problem for public and occupational health by the applicators, some security measures still not applied.

**Keywords:** Agriculture. Cholinesterase. Pesticides.

### MANAGEMENT OF CHEMICAL RISKS IN PLANT PROTECTION APPLICATORS

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**Introduction:** Plant protection products constitute an indisputable tool in agricultural production, but its application requires expo-

sure to serious risk factors for workers, public health and environment. The aim of this study is the use of methodologies for the evaluation of these risks.

**State of the art:** The law N.º. 26/2013, from 11<sup>th</sup> April regulates the activities of distribution, sale and application of plant protection products professionals, transposing Directive no 2009/128/EC.

**Perspectives or guidelines:** We have conducted an implicit circuit approach to the risks to which they are exposed. It urges the implementation of methodologies for evaluating effective chemical risk and to enable the efficient use of Sheets Chemical Safety Information (MSDS).

**Theoretical and practical implementations:** We have performed a literature review, explaining about the link between REACH (Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals), CLP (Classification, Labelling and Packaging) and COSHH Essentials (Essentials Control of Substances Hazardous to Health), and the importance of implementing the plant protection applicators.

**Conclusions:** We concluded that, framing the CLP, REACH and COSHH, it is possible to implement a system of inventory of plant protection chemicals, identify hazards and assess chemical risks objectively and control their exposure, with steps that incorporate product data and specific work context data. It has the advantage of simplifying the application of the method, decreasing risks to workers, public health and environment, showing how limiting is the need to use the MSDS.

**Keywords:** Plant protection products. Applicators. Risks.

### USE OF PLANT PROTECTION PRODUCTS IN AGRICULTURE

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Agriculture is an activity practiced for thousands of years by humans for food production representing risks to the workers' health. These risks are present mainly due to the use of Plant Protection Products (PPP) that despite having benefits in getting food also entail disadvantages for their handlers and also for the environment. This study was conducted in several companies in the agricultural sector in the north and centre of Portugal and had the aimed to carry out an empirical evaluation of the use of PPP in agriculture. The investigation lasted eight months, starting in October 2015 and ending in May 2016. As the target population were considered all workers who used PF in their work duties for a total of 46 employees to whom questionnaires were administered to collect information on the practices adopted by the workers as regards the labour use of PPP. The application of this research has shown the good practices adopted by the workers who were questioned and which are reading the labels, use of equipment for individual safety and proceed the correct disposal of waste of empty containers of PPP. However it can be noted that there are still aspects that the workers have to improve awareness level about the risk they are exposed to when handling PPP since not all employees were careful to adopt these good agricultural practices. The results also demonstrate the need for further action by the supervisory bodies to ensure that the PPP applicators have all the required training certificate by law. It should also be created more awareness campaigns about the safety issues when these products are used like the importance of reading labels, use of appropriate equipment for individual safety for each product type and exposure, and properly route for the waste package.

**Keywords:** Plant protection products. Exposure. Health. Risk.

## ANTIFUNGAL ACTIVITY OF *CHAMOMILLA RECUTITA* L. AND *FOENICULUM VULGARE* MILL. AQUEOUS EXTRACTS IN COTTAGE CHEESE

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**Introduction:** The use of natural substances with fungicide, insecticide and herbicide properties is the focus of intensive research in order to develop sustainable foodstuff.

**Objectives:** To assess the inhibition effect of *Chamomilla recutita* and *Foeniculum vulgare* aqueous extracts, against yeasts and fungi directly in cottage cheese along storage at 4 °C (t<sub>0</sub>, after 7 days (t<sub>7</sub>) and after 14 (t<sub>14</sub>) days).

**Methods:** Cottage cheese was incorporated with aqueous extracts of *C. recutita* and *F. vulgare*. Yeasts and molds were grown in Dichloran Rose Bengal Chloramphenicol medium (Agar-DRBC). The antifungal activity was evaluated by the microdilution method in plate.

**Results:** After observation of the cottage cheese cultures in specific medium at t<sub>0</sub>, it can be stated that it was not verified any growth neither in control nor in the samples incorporated with the plant extracts. However, at t<sub>7</sub> and t<sub>14</sub> it was observed growth of yeasts and fungi in control, while the samples with *C. recutita* and *F. vulgare* revealed no growth of yeasts in Agar-DRBC. Thus, we note that both *C. recutita* and *F. vulgare* inhibited the growth of yeasts and fungi directly in the cottage cheese. Fungal colonies present in the cottage cheese (control) were identified and verified as being the yeast *Candida krusei* and filamentous fungus *Cladosporium herbarum*. *C. recutita* and *F. vulgare* showed antifungal activity against *C. krusei* (MIC = 50 mg/ml and 25 mg/ml, respectively) and *C. herbarum* (MIC = 100 mg/ml in both cases).

**Conclusions:** The two tested plant extracts were able to inhibit the growth of the mentioned yeast and fungi, being able to increase the shelf life of the cottage cheese.

**Keywords:** Chamomile. Fennel. Cottage cheese. Antifungal activity. Preservation effects.

## PRODUCTION OF INFRASOUND AND LOW FREQUENCY NOISE IN ROADWAYS AND RAILWAYS

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Historically, science has divided the acoustic spectrum in a very simplistic way, in infrasound, audible sound and ultrasound, considering as potentially dangerous acoustic phenomena the infrasound and audible sound. This study aimed assess which levels of Infrasound and Low Frequency Noise (ILFN) are produced in roadways and railways in Coimbra city and which are the physical, environmental and technical variables can influence the noise propagation. To achieve the aims, it was carried out a study on the nature: cross-cohort and on the type: descriptive and correlational (level II). It was considered as target-population existing roadways and railways in Coimbra city, where the sample design was defined non-probabilistic and sampling technique rational selection or typicality. The sample was constituted by 31 roads and railways. The data collec-

tion developed in two stages, consistent with the study purposes. For the first stage (assessment of the variables that influences the noise propagation) it was used the sound level meter Brüel&Kjær 2260 with the software BZ 7108 FFT and to the second phase (relation between ILFN and health problems inducers) was used the sound level meter with the software BZ 7210. The data collected were statically analyzed using the data processing software SPSS version 22.0. With the realization of this study we conclude that the low frequency noise produced in roadways and railways do not represent a single pattern, being subjected to the influence of several variables, should be assess by frequency and in the several time periods. It was also concluded that the risk of developing vibroacoustic disease is not limited to occupational exposure, so it must be faced has a public health problem.

**Keywords:** Infrasound. Low frequency noise. Railway.

## THE INFRASOUND AND LOW FREQUENCY NOISE AND ITS IMPACT ON HEALTH

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Industrialization and the mobilization of human effort have led to increased noise output across the range of sound frequencies, leading to a global problem of human welfare reduction. The low frequency noise is a common component of occupational and environmental noise, and that has received little attention. This study aimed to make a reflection about infrasound and low frequency noise (ILFN), in particular as regards the major sources and symptoms that can be perceived by the exposed population. The ILFN has not shared characteristics with larger spectrum of noise. This type of noise is considered the superpower of frequencies by: having less attenuation by walls and other structures; vibrating walls and objects; travel long distances with little loss of energy due to atmospheric attenuation and soil; protective devices are much less effective; capable of producing resonance in the human body; and, to some extent, physiological responses in humans compared to medium and high frequencies, such as those that result in the vibroacoustic disease. It can be affirmed that the ILFN are always present in the environment. This type of noise can come from many sources, including, amongst other, sea waves, air, rail and road traffic and wind turbines. People who live near ILFN sources may have severe symptoms such as sleep disorders, headaches, tinnitus, dizziness and lack of balance (as a result of changes in the vestibular level), nausea, panic attacks, palpitations, fatigue and difficulty concentrating, feelings of intolerability and disability, disorientation, intestinal spasms and resonances in internal organs (such as the abdomen and heart), cardiovascular problems and musculoskeletal system, among others.

**Keywords:** Infrasonds. Low frequency noise. Symptoms.

## OPINIONS OF NURSING STUDENTS RELATED TO DISASTER AND DISASTER PREPAREDNESS IN TURKEY

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**Objectives:** Identify nursing students' opinions related to disaster and disaster preparedness in Turkey.

**Design:** This was a descriptive and analytic study.

**Setting:** This study was conducted in Mugla, which is located west part of Turkey.

**Participants:** The sample of study was consisted of totally 432 nursing students (freshman: 102, second year: 81, third year: 143, fourth year: 106) who has studied in Mugla Sitki Kocman University Health Sciences Faculty Nursing Department.

**Measurements:** The questionnaire form was used for collecting data, which was formed by relevant literature. The data was collecting face to face methods in the class between April-June 2016.

**Results:** 23.6% of subjects were freshman, 24.5% forth class, 36.0% of them aged ranged from 17-20, 69.8% of them female, 98.3% unmarried, 7.5 percent of them graduated from Health Vocational School. 52.7% of them lived in the dormitory, 32.4 % of their family lived Aegean region and 14.6% of their family lived in South East Anatolia Region. 24.2 of participants reported that income is lower than expense, 11.5 percent of them worked any work. The participants described disaster as natural events (46.0%), reasons of human events (34.5%), affected to human as physical and social events (39.1%) and unprepared events (24.6%). And also they determined that types of disaster as earthquake, flood, tsunami, Chemical, Biological, Radiological and Nuclear (CBRN), fire; 98.3%, 95.5%, 91.3%, 47.1% and 62.6 %, respectively. 45.5% of them experienced the any types of disaster as earthquake (92.3%), flood (12.7%) and avalanche blast (0.1%). 14.2% of participants declared that they had disaster plan, and their family (12.5%) as well.

**Conclusions:** About half of the participants experienced any types of disaster, and did not adequately prepared for disasters, but are aware of the need for such preparation. They wanted to educate related to all types of disaster and role of nursing. Nursing curriculum should be included all types of disaster topics.

**Keywords:** Disaster. Nursing students. Preparedness. Opinion. Turkey.

### ANTIMICROBIAL AND ANTIBIOLIFIM ACTIVITIES OF NATURAL EXTRACTS IN CANDIDA ALBICANS AND STREPTOCOCCUS MUTANS

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**Introduction:** *Streptococcus mutans* and *Candida albicans* are among the most important microorganisms for the formation of cariogenic biofilms and induction of dental caries.

**Objectives:** Evaluation of the antimicrobial and antibiofilm activities of natural extracts (hydromethanolic extracts obtained from wild *Fragaria vesca* L. fruits, and decoctions obtained from *Foeniculum vulgare* Mill. and *Chamomilla recutita* L.), used individually or combined, in *Streptococcus mutans* and *Candida albicans*.

**Methods:** The minimum inhibitory concentration (MIC) was determined by following the microdilution method. Biofilm formation was detected by colorimetric method.

**Results:** All the tested natural products showed antimicrobial activity against both microorganisms. *C. recutita* extract gave the lowest MIC value (5 mg/mL) for both microorganisms. For *S. mutans*, the combined extracts showed higher MIC values than the extracts tested separately which could indicate antagonistic effects between the plant extracts. In the case of *C. albicans*, the mixtures of *F. vulgare* and *C. recutita* showed lower MIC values than the isolated extracts, however for *C. recutita* the opposite was observed. Regarding the capacity to inhibit the biofilm production, all the studied extracts showed percentages above 90% for *S. mutans* and above 50% for *C. albicans*. Similarly to the results of the antibacte-

rial activity, the mixtures presented worst performance than the isolated extracts for *S. mutans*; however, for *C. albicans* the mixtures presented better results than the extracts, with inhibitions higher than 70%.

**Conclusions:** The ability to inhibit the production of biofilm, and thus the development of dental caries, is very important for dental health industry for substitute chemical mouthwash with extracts.

**Keywords:** *Streptococcus mutans*. *Candida albicans*. Biofilm. Natural products. Antimicrobial activity.

### ENVIRONMENTAL NOISE VERSUS INFRASOUND AND LOW FREQUENCY NOISE: CASE STUDY OF A POPULATION EXPOSE TO WIND TURBINES

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With the development of the wind energy use also raises the need for protecting the population exposed in areas where are implemented wind turbines. The need to change concepts arises, because those devices, producers of energy considered “green” do not bring just benefits to population. The long-term exposure to different types of noise causes physiological and/or behavioral changes in individuals who are exposed. The noise called infrasonic (< 20 Hz) and low frequency (< 500 Hz) is not processed by the human ear, but both are equally or more harmful than the audible noise. The aimed of this study was to evaluate the impact of infrasounds, low frequency noise expose, and also environmental noise expose in a population living nearby of a wind turbines and compared it with reference values. Measurements were made in two groups (experimental and control), using the sound level meter CESVA, model SC420. The measurements were made in three points of the residence (bedroom, living room and kitchen) and the inhabitants were surveyed about the time spent at each point. With this data it was calculated the daily exposure value of people in each residence. The results reveal the existence of significant differences between the groups, have been found in the experimental group alarming values. It was concluded that prolonged permanency of the individuals to this type of noise causes negative effects on their health and in their daily lives, thus resulting in the urgent need for action.

**Keywords:** Wind turbines. Infrasounds. Low frequency noise.

### COMMUNITY/HEALTH SERVICES AND QUALITY OF LIFE: PERSPECTIVES OF COIMBRA'S ELDERLY PERSONS

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**Introduction:** The Age-Friendly Cities project was launched by the World Health Organization to address two contemporary issues of increasing relevance: urbanization and demographic ageing. The resulting Checklist of Essential Age-Friendly City Features, designed for a city's self-assessment, comprises eight areas of urban living associated with active ageing. Health and support services were considered a vital area to maintain health and independence in the community.

**Objectives:** Assess the “age-friendliness” of Coimbra’s community and health services; explore the relation between the perception of different dimensions of Coimbra’s urban setting and Quality of Life (QoL).

**Methods:** This quantitative and transversal study, included 215 elderly persons, aged between 60 and 90 years old ( $M = 71.03$ ;  $SD = 6.97$ ), residents of various Coimbra parishes. The sample is predominantly female (66%), married (56%), retired (86%) with a perception of sufficient health (46%). The instruments used were a socio-demographic questionnaire, an adaptation of the Checklist of Essential Features of Age-Friendly Cities (WHO, 2007) and the WHOQOL-Bref (Canavarró et al., 2007).

**Results:** The “Community and Health Services” domain obtained the highest satisfaction rates (44.5%) among the eight topics included in the Checklist. This domain had the highest correlation coefficient scores with General QoL ( $p < 0.01$ ), Psychological QoL ( $p < 0.05$ ) and Environment QoL ( $p < 0.01$ ).

**Conclusions:** The satisfaction with “Community and Health Services” flags a positive aspect of the city that can promote active ageing. However, it should be highlighted that additional improvements in this domain could translate into a further increase of QoL.

**Keywords:** Coimbra. Quality of life. Age-friendly city. Health and Community Services.

#### LIFESTYLE IMPACT ON SERUM LEVEL OF VITAMIN D AND PTH, IN ELDERLY

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**Introduction:** The aging process is responsible for the progressive decline of the elders’ general health. That could lead to dependency and consequent institutionalization. Bone metabolism involves serum calcium regulators, such as vitamin D and PTH. Both of these are the main regulators.

**Objectives:** Evaluate hormones that are involved in calcium regulation in institutionalized and not institutionalized elders.

**Methods:** We evaluated 50 elderly (25 institutionalized and 25 not institutionalized). We made an individual questionnaire about lifestyle, general health and autonomy and collected blood to measure the serum concentrations of iPTH and 25(OH)D using immunochemical methods.

**Results:** Not institutionalized elderly showed higher 25(OH)D serum levels, compared to the institutionalized ( $p$ -value  $< 0.05$ ). The serum concentration of 25(OH)D was inversely correlated with iPTH. Calcium supplementation is correlated with higher serum levels of 25(OH)D ( $p$ -value  $< 0.05$ ) and lower concentrations of iPTH ( $p$ -value  $< 0.05$ ). However, the free-living elderly who don’t take any type of vitamin supplementation, showed higher 25(OH)D ( $p$ -value  $< 0.05$ ) and lower iPTH levels ( $p$ -value  $< 0.05$ ), compared with the institutionalized group. The free-living elderly who practice three or more activities per day, had higher concentrations of 25(OH)D ( $p$ -value  $< 0.05$ ) and lower concentrations of iPTH ( $p$ -value  $< 0.05$ ), compared to the institutionalized.

**Conclusions:** It is crucial to recognize vitamin D deficiency as a public health problem and implement policies of vitamin D fortification. Sun exposure, vitamin supplementation for calcium metabolism, food enrichment and the adoption of an active lifestyle, should be taken into account, especially targeted to high-risk groups.

**Keywords:** 25-hydroxyvitamin D. 1.25-dihydroxyvitamin D. iPTH. Institutionalization.

#### EVALUATION OF RESPIRATORY FUNCTION AND AIR QUALITY NIGHTLIFE ESTABLISHMENTS

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**Introduction:** Air quality in nightlife establishments has been increasingly a subject of importance. There are several components that can be analyzed when measuring air and all of them have harmful effects on public health. The study in question has as a premise to check if its harmful effects found in nightlife environments, have direct or indirect influence on the air breathed, and whether this influence is conditioning or not the breathing of people that usually go to night places.

**Methods:** A prospective study was conducted on a sample of 40 individuals, aged over 18 years that regularly attend nightspots. For sample collection was carried out a baseline spirometry to observe the respiratory changes and measured the CO level in exhaled alveolar gas before and after frequenting the establishment under study, situated in Coimbra.

**Results:** In lung function tests, all subjects had values within normal limits. There were also collected data to provide information about the environmental parameters, which were present in nightlife space. Smokers evidenced an already high average value in the early evening, that is, without being exposed,  $16.50 \pm 12.103$  (before exposure-ppm). This value further increased to an average of  $26.30 \pm 14.514$  (after exposure-ppm). A similar pattern occurred in the group of non-smoking,  $2.40 \pm 1.903$  (before exposure) in early evening and after that  $5.85 \pm 0.416$  (after exposure), either in ppm or level of hemoglobin.

**Conclusions:** As for smokers, it is known that all of them, 20, effectively increase the carbon monoxide level. In the group of non-smokers, this was not true. The effects of these pollutants are known in public health and in this case, airway. It is known that carbon monoxide affects not only smokers but also non-smokers, then becoming extremely harmful to health.

**Keywords:** Air quality. PM 2.5. PM 10. Carbon monoxide. Tobacco.

#### PRESENCE OF TREMATODE FASCIOLA HEPATICA IN THE MUNICIPALITY OF LAJES OF FLOWERS ISLAND. RISK TO PUBLIC HEALTH

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**Introduction:** Liver fluke is an infectious disease caused by trematode *Fasciola hepatica*, which fundamentally parasite herbivorous animals, but also affects the human being, only occasionally and accidentally, through the ingestion of water or aquatic plants such as watercress containing encysted metacercariae.

**Methods:** The aim of this study was to discover if liver fluke was present in the population of the municipality of Lajes das Flores. To collect data was distributed to the local population a questionnaire about the knowledge and good consume practices and manipulation of watercress and were collected sample from watercress crops, containing the snail (vector of the disease, because it is miracidium carrier which has liver fluke) to evaluate if the watercress was infested.

**Results:** It has been found that the snail is in watercress crops, but after receiving the laboratory results, it was confirmed that it is not releasing the cercaria, since it was in hibernation.

**Conclusions:** After analyzing the results of the questionnaires. it was found that individuals who had lower education reveal worst

knowledge about the disease comparatively to individuals with higher education. The individuals who had knowledge about the disease harvested irrigated watercress by untreated water. Finally, the residence zone influences the adoption or not of good consumer practices and watercress manipulation.

**Keywords:** Fasciola hepatica. Snail. Watercress. Human being.

### PRESENCE OF FASCIOLA TREMATÓDE IN THE MUNICIPALITY OF LAJES DAS FLORES, AZORES. RISK ASSESSMENT OF ANIMAL INFECTION

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**Introduction:** The trematode Fasciola hepatica is a parasite of the phylum Platyhelminthes. The effects of the liver fluke are devastating both in health and at social-economic level. It has a worldwide distribution, mainly in temperate and tropical climates. The disease infects animals through ingestion of aquatic plants. On Flores island it was detected for the first time during the health inspection carried out in the slaughterhouse of Flores island. Slaughtered animals had liver lesions and the presence of Fasciola hepatica in the liver.

**Methods:** The study took place in the population of farmers in the municipality of Lajes das Flores, with the objective of determining the presence of Fasciola hepatica, and the identification of risk areas, percentage of rejected livers, awareness and study of the creation of practices stockbreeders of the municipality. Aquatic plants samples were harvested, with the snail (intermediate host) by parish, to identify metacercariae subsequently analyzed at the Laboratório Regional de Veterinária. To obtain more information from the farmers, a questionnaire was elaborated, based on their practices in relation to this issue and promote their awareness.

**Results:** With the obtained results, it was found that most people (62%) had no care to avoid placing the cattle in places of stagnant water, endangering the health of livestock. Most had knowledge of the affected areas, but did not prevent animal access to wetlands (31.8%). From September 2015 until May 2016, 94 livers were rejected in post mortem inspection, due to liver fluke.

**Conclusions:** Livestock farmers need to improve their practices and gain more knowledge, so that the situation of liver fasciolosis could be reversed.

**Keywords:** Fasciola hepatica. Bovine fasciolosis. Sampling.

### OCCUPATIONAL PARTICIPATION IN DOWNS SYNDROME: EFFECT OF STRENGTH AND HAND ANTHROPOMETRY MANUAL DEXTERITY

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**Introduction:** Individuals with trisomy 21 (T21) are described by presenting structural and functional irregularities of the nervous system, systemic, sensory and anatomical changes, but little information exists about the impact of these internal limitations in occupational participation. Besides incidence of this syndrome (1/800), prevalence (18% of all people with intellectual disabilities in institutions) and political discourse and legislation (Decree-Law No. 3/2008) our goal was to investigate the effect of muscular force

(MF) (dynamometer hydraulic Jamar) and anthropometric measures of the hand (hand analog caliper) manual dexterity (MD) (Box and Block Test) related with age group.

**Methods:** In this transversal study the following instruments were applied: Box and Block Test, Dutch Handedness Questionnaire, dynamometer hydraulic Jamar and hand analog caliper. We conducted a descriptive and inferential analysis ( $\alpha = 0.05$ ) in PASW Statistics 21. The sample was composed by 81 subjects, 39 (16 children and 23 adults) with a diagnosis of T21 and 42 (20 children and 22 adults) with Typical development (TD) between 6 and 58 years.

**Results:** TD group variability of MD was explained by MF, length, width, thickness and diameter variables in both hands, while in T21 group, the variability of MD was explained uniquely by diameter variable in the preferred hand. Furthermore, in TD group was found that younger is the sample, a greater number of variables explain the variability of MD.

**Conclusions:** The assessment and understanding of these skills and their behavior, enable stimulation programs delineation and improve performance on activities of daily living (ADL).

**Keywords:** Trisomy 21. Anthropometry. Manual dexterity.

## 10. HEALTH AND LIFE QUALITY

### FUNCTIONAL REHABILITATION OF THE UPPER LIMB IN WOMEN WITH MASTECTOMIES: SYSTEMATIC REVIEW OF THE LITERATURE

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**Introduction:** Breast cancer continues to be very harmful for the high incidence of co-morbidities. The contributions of rehabilitation on functional recovery of the upper limb are very important, but there is no consensus on the ideal exercise and the timing to start these programs.

**Objectives:** To evaluate the effectiveness of functional rehabilitation programs of upper limb, started in the immediate postoperative period, the woman undergoing unilateral radical mastectomy.

**Methods:** We conducted a systematic review of the literature, using the search engines: PubMed; The Cochrane Library; Institutional Repositories; Pedro. They used different combinations with the key words “rehabilitation”, “breast cancer”, “upper limb”, “modified radical mastectomy” and “postoperative complications” in Portuguese and English. The survey took place between December 2013 and February 2014, following the principles proposed by the Cochrane Handbook.

**Results:** We identified a total of 491 items, ending the study of the corpus to be composed of six primary trials (RCTs). These suggest statistically and clinically significant benefits for early intervention rehabilitation, helping to prevent post-surgical complications and rehabilitating women early for the activities of daily living.

**Conclusions:** The results of six studies allow us to conclude that a structured and systematic program generates benefits in MS functionality and consequently the quality of life for both the short and long term. Its effects are mainly focusing on the reduction of pain, prevention of lymphedema, the recovery of range of motion, also highlighting up the importance of precocity of improving quality of life of women.

**Keywords:** Neoplasm. Mastectomy. Rehabilitation nursing. Quality of life.

## MUSCULOSKELETAL INJURY PREVALENCE OF MUSICAL ARTS PROFESSIONALS

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**Introduction:** Musculoskeletal injuries related to the labour it is currently presented as a growing scourge and the music profession is a predisposing activity for harm to occur, requiring special attention of health professionals to identify and control risk factors.

**Objectives:** This study aimed to identify the prevalence of musculoskeletal disorders in professional practitioners chordophones pinched musicians and analyze their relationship with sociodemographic variables, health status and characteristics of instrumental practice.

**Methods:** This is a non-experimental, cross-sectional, descriptive and correlational and quantitative character study, which involved 70 Portuguese musicians practicing string instruments pinched, residents at Viseu, Oporto and Lisbon, aged between 18 and 55 years. It was conducted using a questionnaire assessing sociodemographic variables, clinical and related musical practice and evaluation of musculoskeletal disorders for which we used the “Nordic Musculoskeletal Questionnaire”.

**Results:** Of the musicians studied 70.0% reported feeling musculoskeletal disorders such as pain/tingling/numbness in the last 12 months and they occurred mainly in the wrists/hands (68.6%), shoulders (54.3%), neck and lower back (44.3%). We observed that there are several risk factors for musculoskeletal disorders such as older age, higher body mass index, consumption of alcoholic beverages, no physical activity, numerous shows, the adopted posture, heavier instruments and play without breaks.

**Conclusions:** Musculoskeletal disorders are present in many Portuguese musicians and that contribute individual characteristics, health status and the requirements of instrumental practice. So must create preventive action programs which encourage artistic life with quality.

**Keywords:** Musicians. Musculoskeletal injuries. Risk factors..

## HEALTH GAINS WITH THE INTERVENTION OF REHABILITATION NURSES IN PATIENTS WITH COPD

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**Introduction:** COPD is a disease with high chronic morbidity rate, loss of quality of life and mortality. It is thought that by 2030 COPD will be the third cause of mortality worldwide. The rehabilitation nursing plays a key role in maintaining the functional capacity of the patient with COPD, for its impact on their quality of life.

**Objectives:** The aim of this study is to evaluate the gains in QOL in patients with COPD who had intervention of rehabilitation nurse, compared to patients who did not have intervention of rehabilitation nurse.

**Methods:** To meet the objective set we have decided to conduct a study “Quasi experimental” with a quantitative approach. a sociodemographic questionnaire, to knowledge of the characteristics of the sample and the health quality assessment tool SF-36vs2 was applied. Data collection took place from May to July 2013.

**Results:** The sample consisted of 80 patients with COPD, of which 40 had intervention of rehabilitation nurse and 40 have no interven-

tion. The results of the study demonstrated that the group rehabilitation nurse intervention gains obtained in the two major components of the SF-36vs2, physical component ( $p = 0.002$ ) and mental ( $p = 0.003$ ). It was also found that with the rehabilitation nursing interventions, there were gains in physical function dimensions ( $p = 0.001$ ), bodily pain ( $p = 0.002$ ), general health ( $p = 0.001$ ), vitality ( $p = 0.001$ ), social function ( $p = 0.005$ ) and mental health ( $p = 0.002$ ).

**Conclusions:** The intervention of rehabilitation nurse improves the quality of life in patients with COPD, recording better perceptions of their health status, contributing to a more effective management of health care of these patients.

**Keywords:** Quality of life. COPD. Nurse rehabilitation.

## QUALITY OF LIFE IN HIGHER EDUCATION GRADUATES: THE EFFECTS OF ANEMPLOYMENT

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**Introduction:** Quality of life (QOL) is a well-developed conceptual construct (Drobnic, Beham & Prag, 2010). Anemployment is defined as the experience of work, throughout one’s career, alternating precarious work and unemployment (Araújo, Castro e Jordão, 2014).

**Objectives:** Using EUROFOUND’s view on QOL, which embodies the experience of European citizens, in this paper, which is part of a larger study, we present the anemployment effects in QOL of higher education (HE) Portuguese graduates.

**Methods:** Twenty HE graduates from different scientific areas participated in semi-structured interviews which aimed to collect anemployment experiences and its effects. Overall, participants are predominantly female (70%) and childless (70%), 10 are married/cohabiting and 10 are single and with an average age of 32.06 ( $\pm 5.57$ ). Participants had in average of 8.51 ( $\pm 4.96$ ) years of experience after graduation. Interviews were audiotaped, transcribed and coded in Nvivo Software, using qualitative data analysis.

**Results:** Anemployment affects QOL on three levels: Family, Well-Being and Work-Life Balance. The most coded category was Effects on Well-being [197 coding references (CR)], followed by Effects on family (91CR) and Work-life balance (7CR). Effects on well-being comprise 8 sub-categories, from which the most coded were: Worsening of mental health (106CR), Loss of Professional identity and feeling unuseful (38CR), Repentance of attending a degree (15CR), Stigma of being unemployed or a precarious worker (12CR) and Worsening of physical health (10CR).

**Conclusions:** Anemployment is affecting the QOL of HE graduates-whom have studied hard and expected to find stable employment. Therefore, is it imperative to rethink approaches to help graduates cope with anemployment effects on quality of life.

**Keywords:** Anemployment. Quality of life. Graduates. Career.

## FACTORS PREDICTING QUALITY OF LIFE OF PORTUGUESE PEOPLE WITH AND WITHOUT INTELLECTUAL DISABILITY

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**Introduction:** Improved knowledge of quality of life (QOL) construct can contribute to an enhanced understanding of people with



intellectual disability (ID). There is an emerging body of evidence regarding personal (e.g., gender, age, IQ, and adaptive behavior) and environmental (e.g., supports, residential setting, inclusion, employment status, interactions, and culture) that influence QOL. Identify factors predicting QOL of people with and without ID are vital to focus on how these elements can be used by stakeholders to enhance personal outcomes and focus on social-ecological understanding on disability.

**Objectives:** This research aims (a) to compare QOL of citizens with and without ID and (b) to analyze factors predicting QOL of those participants.

**Methods:** The sample included 1,929 participants, namely, 1,264 citizens with mild ( $n = 769$ ) and moderate ( $n = 495$ ) levels of ID, and 665 individuals without ID. QOL was assessed by the Escala Pessoal de Resultados, which showed adequate psychometric coefficients in the Portuguese context (Simões, Santos, & Biscaia, 2016).

**Results:** The results revealed a better QOL for individuals without ID. Furthermore, general population exposed higher scores in the health status and physical activity indicators. Additionally, both sets of characteristics (e.g., personal and environmental) were predictors of QOL of adults with and without ID. The findings highlighted that the health status was the highest predictor of QOL in both groups of participants.

**Conclusions:** The data provided us insight into how Portuguese policies and supports need to change, in order to better serve the needs of each person with ID and reduce the gaps among citizens.

**Keywords:** Quality of life. Predictors. Intellectual disability.

### THE PERCEPTION OF QUALITY OF LIFE IN PEOPLE WITH MULTIPLE SCLEROSIS: A STUDY ON THE HEALTH LOCAL UNIT OF THE ALTO MINHO

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**Introduction:** Multiple sclerosis (MS) is a chronic disease that affects the fibers of the central nervous system and may lead to severe neurological disability (Portuguese Society of Multiple Sclerosis, 2014). In turn, Quality of Life is understood as the individual perception about their position in life, in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (World Health Organization Quality of Life Assessment Group, 1994).

**Objectives:** This study aims to assess the QoL of people with MS, analyze their sociodemographic and clinical profile and the relationship between these variables and QoL.

**Methods:** It is a quantitative investigation and the data collection protocol consists of a sociodemographic form and the Medical Outcomes Study Questionnaire Short-Form 36 (SF-36) (MOS SF-36; Ferreira, 2000).

**Results:** In this work are involved 67 persons with MS of both genders (82% females) with a mean age of  $42 \pm$  standard deviation (SD) 11.7 years (between 20 and 71 years). The results show that the participants obtained higher scores of QoL is the Mental Health dimension ( $M = 58,96$ ) and lowest in Vitality dimension ( $M = 42,07$ ) of the MOS SF-36v2. People who reported fatigue and loss of balance had lower QoL levels, registering significant statistically differences in all dimensions of QoL, except for Physical Pain and General Health.

**Conclusions:** Considered globally the study results may be useful for a better understanding of people with MS accompanied in UL-

SAM, EPE and consequently contribute to the quality improvement of health practices. In fact, as a result of this work some improvement measures of quality of health/nursing care have been already implemented.

**Keywords:** Multiple sclerosis. Quality of life. Health. Person with multiple sclerosis.

### PHYSICAL EXERCISE AND QUALITY OF LIFE: A STUDY IN HIGHER EDUCATION (LEIRIA/PORTUGAL)

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**Introduction:** The World Health Organization recognizes physical activity as both one of the health promoting behaviours (WHO, 2011) and also improves ones quality of life.

**Objectives:** To evaluate the association between perception of quality of life and practice of physical exercise.

**Methods:** A total of 140 subjects of a convenience sample of employees and 2<sup>nd</sup> cycle students of the of the School of Education and Social Sciences from the Polytechnic Institute of Leiria during the school year 2014/2015 were studied as a part of larger research. The sample mean age were 32, 87 years old (min: 20, max: 62) and the majority of participants were female (83,3%). World Health Organization Quality of Life-BREF (WHOQOL-BREF) was used to evaluate quality of life as well as a questionnaire to assess sociodemographic variables and physical exercise variables.

**Results:** Significant differences were not found between practitioners and non-practitioners of physical activity regarding quality of life ( $p > 0.001$ ).

**Conclusions:** It is well known that physical activity improves ones quality of life (e.g.: Silva, Silva, Silva, Souza & Tomasi, 2010) however in this study the perception of quality of life and practice of physical exercise are not related. These unexpected results, if confirmed, encourage us to go further and understand which variables are engaged in this association.

**Keywords:** Physical exercise. Quality of life. Higher education.

### QUALITY OF LIFE OF THE CHILDREN AND ADOLESCENT WITH VISUAL IMPAIRMENT

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**Introduction:** Knowing that visual impairment (VI) is a problem that limits the people's lives, it can affect their quality of live (QOL). QOL is a concept that has been the target of interest within various areas of knowledge and its definition varies according to the same. However, it can be said that QOL is a multidimensional and hierarchical concept, which includes subjective and objective indicators.

**Objectives:** This study of exploratory, descriptive, and correlational nature, aims to explore the QOL perceptions of children and adolescents with VI, as well as the perceptions of their parents.

This research also aims to analyze QOL in the perspective of low vision and blindness, gender and age of the children and adolescents.

**Methods:** Data were collected from 18 children and adolescents with VI and their respective parents. QOL was assessed by the Kid-screen 52 (Gaspar & Matos, 2008).

**Results:** Findings highlighted that children and adolescents have a positive perception about their QOL, as well as parents about QOL of their children. There are statistical differences between the perceptions of children and adolescents versus parents. Although with little significant difference, the children's perceptions are higher than their parents. Given the type of VI, children and adolescents with low vision have higher QOL. Regarding to gender, the males have higher scores of QOL. In respect to age, children have a better QOL.

**Conclusions:** Given the small size of the sample, one cannot generalize the data. Nevertheless, results are important and allow us to know the QOL perceptions of the participants. The findings also provide relevant information to their own families, school, and particularly in terms of health services, in order to enhance QOL of this specific population.

**Keywords:** Quality of life. Perceptions. Visual impairment.

## SLEEP QUALITY AND STRESS LEVELS AMONG HIGHER EDUCATION STUDENTS

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**Introduction:** A good night sleep enables to achieve physical and mental wellbeing (Paiva, 2015). The preservation of sleep quality is paramount as who sleeps well has a high adaptation capacity to adverse circumstances such as stress and anxiety, amongst others. There is an impacting relationship between reduced sleeping hours and high levels of anxiety, depression and stress (Pinto et al., 2012).

**Objectives:** Measure the sleep quality and stress levels amongst higher education students.

**Methods:** Quantitative study with a descriptive-correlational and transversal design. A socio-demographic record, the Pittsburgh Sleep Quality Index (PSQI) from Ramalho (2008) and the Anxiety, Depression and Stress Scale (EADS-21) from Ribeiro, Honrado and Leal (2004) were applied. The sample included 358 students.

**Results:** 54% of the students present a bad sleep quality, go to bed on average at 1am, take about 19 minutes to fall asleep and sleep on average 7 hours effectively. Female students have a 48% higher probability of having bad sleep quality. Stress, anxiety and depression levels were considered disperse with stress presenting the higher average. The majority of the students that refer having a bad sleep quality present an average score of 6.57 on the stress scale being approximately double of the students that refer having a good sleep quality (3.35).

**Conclusions:** Stress, anxiety and depression are positively and with statistic significance correlated to the sleep quality index where a higher score means worse sleep quality.

**Keywords:** Sleep patterns. Students. Stress. Disturbances.

## SATISFACTION WITH THE PROFESSIONAL STATUS OF GRADUATES NURSES: SCALE VALIDATION

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**Introduction:** The Increasing number of Portuguese nurses' graduates, the reduction of employment opportunities in the country and the poor working conditions/wages cause many graduates in nurs-

ing to seek work elsewhere in the European Union. This study aims to analyze satisfaction with the employment situation of graduates in nursing.

**Objectives:** Characterize satisfaction with the professional status of graduated nurses.

**Methods:** This is a descriptive study with a sample of 141 graduated nurses between 2002 and 2014 in a Nursing School of the Northern Region of Portugal. It was created and validated the Satisfaction Scale with the Professional Situation of Nurses, based on the literature review. This is a Likert scale of the 1 at 5 points: 1 - very dissatisfied and 5 - very satisfied. The factor analysis with orthogonal rotation Varimax type at the scale consisting of 13 items shows good value of Kaiser-Meyer-Olkin (0.824) and high internal consistency ( $\alpha = 0.779$ ). The Scale has three dimensions: career, professional self-fulfillment and social representation of nursing.

**Results:** The career dimension has translated dissatisfaction ( $x = 1.93$ ,  $SD = 0.70$ ); professional self-realization reflects a tendency to a state of satisfaction ( $x = 3.58$ ,  $SD = 0.85$ ); and the social representation of nursing represents a degree of satisfaction that tends to very satisfied ( $x = 0.43$ ;  $SD = 0.9$ ).

**Conclusions:** The dissatisfaction of graduates with the professional career, more evident in items of remuneration and the current status of graduates, makes this a priority problem for Nursing. Thus, it is suggested the creation of intervention and research programs that deepen this problem in order to eliminate this negative perception of who initiates the nursing profession.

**Keywords:** Scale validation. Professional satisfaction. Nurse.

## IMMUNIZATION OF PATIENTS WITH COPD FROM TWO FAMILY HEALTH UNITS

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**Introduction:** Chronic Obstructive Pulmonary Disease (COPD) is a chronic respiratory disease characterized by a progressive and persistent airflow limitation. Exacerbations are associated with disease worsening and increased mortality. Influenza and pneumococcal vaccines are a preventive strategy for acute exacerbations of COPD. According to the Global Initiative for Chronic Obstructive Lung Disease and the Portuguese guidelines, these vaccines are recommended in all COPD stages.

**Objectives:** Characterize patients with COPD diagnosis from 2 family health units (FHU), according to anti-influenza vaccination levels for the 2015-2016 season and anti-pneumococcal vaccination levels.

**Methods:** Observational, descriptive, cross-sectional study; Population - patients from 2 FHU with COPD diagnosis; variables - gender, age, anti-influenza vaccination for the season 2015-2016, anti-pneumococcal vaccination; data source - digitally available clinical files; statistical analysis - Microsoft Excel.

**Results:** A total of 284 patients with COPD were evaluated, from which 58.1% were male. Ages ranged between 36 and 94 years old. In total, 156 patients were vaccinated with the anti-influenza vaccine (season 2015-2016) and 55 patients were vaccinated with the anti-pneumococcal vaccine. From the latter, 39 patients were vaccinated with the 23-valent pneumococcal vaccine and 27 patients were immunized with the 13-valent pneumococcal vaccine (11 patients were vaccinated with both vaccines).

**Conclusions:** More than half of the patients were vaccinated against influenza, but the anti-pneumococcal vaccination rate was very low. Although these results could be biased by the lack of access to patients medical files from the hospital, there is a big margin to improve immunization of patients with COPD.

**Keywords:** COPD. Exacerbations. Immunization.

## HEALTH BEHAVIORS, CUSTOMS AND LIFE STYLES: EPIDEMIOLOGICAL RISK INDICATORS (HEALTH STATUS AND DISEASE)

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**Introduction:** Societies today are undergoing constant transformation and every day individuals are exposed to determinants that can influence their well-being, health and quality of life. Health and disease determinants are developments or events that produce health modifications in a specific clinical situation.

**Objectives:** Identify and describe the determinants of health of the inhabitants in the municipality of Coimbra and understand the impact of the general perception of health.

**Methods:** The study type was observational, analytic and cross-sectional. The population being analysed was composed by the inhabitants of Coimbra's County, adult with 35 years old or more and residents in one of the 31 parishes of Coimbra.

**Results:** Analysing the anthropometric parameters, 14.75% of the inhabitants were obese and 45.38% were overweighted. Regarding lifestyles, 20.78% was smoking, 95.9% consumed 3 or more meals/day, 43.42% consumed alcohol, 67.2% slept between [7-8] hours/day and 72.3% were sedentary. Analyzing the health general perception, 56.04% classified it as "good" or "very good". We evaluated the exogenous predictors with highest impact on the health profile of the researched population, nowadays, and we concluded that older people, female, widow, practicing actively a religion, with low qualifications, living in MRA, unemployed, retired and employed but with precarious contracts presented the worse results of health status.

**Conclusions:** There is a need to reflect the reach of the current public policies and paradigms and the assistance practices on the health sector, so these can meet the new research scenarios on social epidemiology on the field of new ways of social organization and how these new ways impact the health and well-being of the populations.

**Keywords:** Health determinants. Lifestyles. Quality of life.

## EMPOWERING PEOPLE WITH DIABETES TYPE 2: HEALTH GAINS WITH A THERAPEUTIC EDUCATION PROGRAM

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**Introduction:** Diabetes is a serious public health problem, with increasing prevalence (OND,2015), challenging new approaches that focus on particular characteristics of people with this disease. This presentation is part of the intervention-oriented stage of the literacy assessment of diabetes type 2 individuals, funded by FCG that ran in the North region.

**Objectives:** to assess a therapeutic education program with type 2 diabetic individuals.

**Methods:** It is a quasi-experimental study, with a 38 members experimental group participating in a group therapeutic education program (six months) and a 35 individuals control group did not participating in any program of this nature. We evaluated knowledge, empowerment and quality of life (QoL), before and after, in both groups. For

this purpose, the following validated instruments for the Portuguese population have been used: Diabetes Empowerment Scale-Short Form (DES-SF), Diabetes Knowledge Tool (DKT) and EQ-5D-3L.

**Results:** In the experimental group we evidenced statistically significant relationships in what concerns empowerment ( $p < 0.001$ ), QoL ( $p < 0.001$ ), Body Mass Index ( $p < 0.030$ ), glycated hemoglobin ( $p < 0.001$ ) and abdominal perimeter ( $p < 0.001$ ). However, there were no statistical differences in relation to knowledge, in spite of an increase from  $54.37 \pm 0.19$  to  $61.41 \pm 0.36$ . In the control group there were no significant statistical differences in any of the variables.

**Conclusions:** The group therapeutic education program showed effectiveness regarding empowerment, quality of life and health gains. It is also evident the need to continue investing in new strategies that promote knowledge acquisition by individuals.

**Keywords:** Empowerment. Quality of life. Diabetes.

## SATISFACTION OF USERS WITH THE HEALTH COMMUNICATION

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**Introduction:** The Communication processes in health are structuring the relationship between health professionals and users and interactional quality. Is crucial to improve knowledge of communication dimensions in health organizations.

**Objectives:** Know the user satisfaction degree with the health communication; relate satisfaction with communication and socio-demographic aspects.

**Methods:** This is a quantitative, cross-sectional descriptive-correlational study. Was performed in a private hospital in the north of the country in 2015 in a random sample of 204 users. We used the questionnaire "Avaliação da satisfação do utente na comunicação com os profissionais de saúde", Designed and validated for the Portuguese population (Santos, Moreira & Pimenta, 2013).

**Results:** The reporting population is mostly 59.8% female, residing in urban areas 67.6% and the mean age was  $43.58 \pm 15.83$  years, ranging from 19 to 83 years. There is a diversity of academic qualifications, in which 23.5% has the 1<sup>st</sup> cycle and 23% higher education. Cronbach's alpha coefficient was 0.871. The dimension of satisfaction with highest average was "Empathy" (0.646) and the lowest "Troubleshooting" (0.177). There were no statistically significant differences in satisfaction related to gender, educational attainment and age.

**Conclusions:** Overall satisfaction in communication with staff was positive measures to improve the dimensions "Material Support" and "Troubleshooting" are necessary.

**Keywords:** Satisfaction with communication. Communication and health.

## HEALTH EDUCATION NEEDS IN PEOPLE LIVING WITH HIV/AIDS

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**Introduction:** People living with HIV/AIDS (PLWHA) have the need for their doubts and life experiences be understood and accepted

by professionals, in particular on the treatment and care conditions with the disease, and an indispensable need for the adhesion process and the continuity of health monitoring.

**Objectives:** To identify the educational needs of PLWHA.

**Methods:** Qualitative study developed in the Specialized Care Services (SAE) to PLWHA in the city of Ribeirão Preto, Brazil. Data were collected from May to August 2015 through semi-structured interview, applied to 26 patients with HIV/AIDS in monitoring. The interviews were recorded and later transcribed for analysis. Were used the thematic analysis method proposed by Bardin.

**Results:** Respondents demonstrated knowledge about the disease, but they lack information about the topics: benefits of drug treatment and side effects; new methods preventives; body care and its benefits (nutrition, physical activity, leisure, sexuality); opportunistic diseases and their rights (reproductive, labor and confidentiality of the disease).

**Conclusions:** There were the different educational needs of PLWHA. We emphasize the importance of continuity of studies on the subject, as the authors emphasize the need for greater investment in information and communication actions and review of the strategies that have been developed, focused on this subject, allowing the individual to greater ownership of knowledge to himself self-care and to improve their quality of life.

**Keywords:** HIV. Health education. Nursing.

### QUALITY OF LIFE IN INSTITUTIONALIZED ELDERLY UNDERGOING AN ACTIVE AGING PROGRAM

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**Introduction:** Living with quality is a growing concern of the old population. There is an increasing institutionalization of the elderly, and it is in this context that active aging programs assume relevance, allowing the elderly the contact with experiences that allow them to age with quality of life, by maintaining their autonomy and promoting their physical, mental and emotional well-being. This study aims to assess the quality of life of institutionalized elderly undergoing to an active aging program.

**Methods:** We have developed a semi-experimental study that considers the quantitative methodology in which the following instruments were used to measure the quality of life: Eurohis-Qol-8 (Pereira, Melo, Gameiro, & Canavarro, 2011) and Whoqol-Old (Vilar et al., 2010), to which sociodemographic and clinical questions were added. Assessments were made in two different moments, before and after the intervention program, in a sample of 37 institutionalized elderly.

**Results:** Concerning the assessment of quality of life related to health (Eurohis-Qol-8), significant higher scores were obtained in the second moment ( $p = 0.004$ ). Regarding the quality of life related to the elderly significant better scores were also obtained in the second assessment ( $p = 0.001$ ).

**Conclusions:** The results obtained allow us to conclude that using either of the measuring scales of Eurohis-Qol-8 or Whoqol-old, there is a perceived improvement in quality of life in those using the active aging program. Thus, institutionalized elderly must be the main target in the design and implementation of active aging programs.

**Keywords:** Quality of life. Aging. Active aging.

### FACTORS RELATED TO HOSPITALIZATION OF PEOPLE LIVING WITH HIV/AIDS IN BRAZIL'S INTERIOR

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**Introduction:** With the introduction of antiretroviral drugs was obtained increased survival, decreased hospitalizations and complications associated with the disease; yet observed persistent cases of hospitalization.

**Objectives:** To analyze the variables which are associated with hospitalizations of people living with HIV/AIDS.

**Methods:** Transversal study conducted in the interior of Brazil in the years 2014 and 2015. Study participants were users of a specialized clinic for people living with HIV/AIDS. Individuals over 18 years old who were taking antiretroviral therapy and attended the clinic were invited. The gathering was carried out through individual interviews. The data were organized in Excel 2010 and processed in SPSS 23.0. We used the chi-square test adopting 1 significance level of  $p < 0.05$ . All ethical aspects were contemplated.

**Results:** Of the 258 service users, 78 (30.2%) had been hospitalized for complications of the disease; 47 (60.3%) were men; 30 (38.5%) were over 50 years old; 44 (56.4%) had attended 5 full school years; 45 (57.7%) earned less than the minimum wage; 52 (66.7%) started treatment soon after diagnosis; 66 (84.6%) were taking two pills a day; 60 (76.9%) had no adverse effects; 60 (76.9%) had no comorbidities and 51 (65.4%) did not use drugs. The variable "occupation" was the only one that showed significance with hospitalization ( $p = 0.007$ ).

**Conclusions:** This study drew attention to the number of men over 50 years old with low education and low wages, which were hospitalized for complications of HIV; however the variable hospitalization was only statistically significant with the association with the variable occupation.

**Keywords:** HIV. Hospitalization. AIDS.

### DRUG CONSUMPTION BY PEOPLE LIVING WITH HIV/AIDS IN THE INTERIOR OF MINAS GERAIS- BRAZIL

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**Introduction:** Drug use is a global problem that affects the immune system, especially if associated with the use of antiretroviral drugs, and the possibility of increasing transmission of HIV among drug users.

**Objectives:** To identify the variables related to drug use by people living with HIV/AIDS.

**Methods:** Transversal study conducted in the interior of Brazil, in the years 2014 and 2015. Study participants were users of a specialized clinic for people living with HIV/AIDS. Individuals over 18 years old who were taking antiretroviral therapy and attended the clinic were invited. The gathering was carried out through individual interviews; the data were organized in Excel 2010 and processed in SPSS 23.0. All ethical aspects were contemplated.

**Results:** The study included 258 members, of whom 74 (28.7%) reported to use any type of drug, being 41 (15.9%) alcohol, 26 (10.1%) marijuana, 7 (2.7%) cocaine, 9 (3.5%) crack, 23 (8.9%) cigarette and 2 (0.8%) heroin. Among those who used drugs, 47 (33.4%) were men, 31 (36.9%) 20-39 years old, 36 (28.6%) up to 5 years of school, 36 (37.9%) more than a minimum wage per month. 41 (27.7%) had

a sexual partner in the last 12 months and 18 (20.2%) always used condoms in their relations, 52 (65.3%) had HIV diagnosis for more than 10 years, 42 (56.8%) had not discontinued the treatment, 47 (26.1%) had not been hospitalized for complications of HIV and 68 (91.9%) had no comorbidities.

**Conclusions:** The use of drugs was associated with income ( $p = 0.008$ ), practican religion ( $p = 0.001$ ), male condom use ( $p = 0.045$ ), interruption of antiretroviral therapy ( $p = 0.002$ ) and comorbidities ( $p = 0.012$ ).

**Keywords:** AIDS. HIV. Illicit drugs.

### FACTORS RELATED TO THE INTERRUPTION OF ANTIRETROVIRAL THERAPY FOR PEOPLE LIVING WITH HIV/AIDS - BRAZIL

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**Introduction:** Antiretroviral enabled increased survival, decreased hospitalizations and complications associated with the disease; yet even the treatment being free and positively impacting the individual's quality of life, we observe persistent cases of non-compliance. **Objectives:** To identify and analyze the variables which were associated with stoppage of antiretroviral therapy for people living with HIV/AIDS.

**Methods:** Transversal study ran in 2014 and 2015 with the users of a specialized clinic for PLWHA. Individuals older than 18 years old were invited. The gathering was carried out through individual interviews. The data were organized in Excel 2010 and processed in SPSS 23.0. We used the chi-square test, adopting a significance level of  $p < 0.05$ . All ethical aspects were contemplated.

**Results:** The study included 258 users of which 29.5% had already stopped the use of ART. The association of these variables with the interruption of antiretroviral therapy was statistically significant with age ( $p = 0.001$ ), education ( $p = 0.038$ ), practicing religion ( $p = 0.002$ ), living with a relative with HIV ( $p = 0.039$ ), CD4count ( $p = 0.000$ ), viral load ( $p = 0.000$ ), adverse events ( $p = 0.000$ ), assistance in activities of daily living ( $p = 0.006$ ) and drug use ( $p = 0.002$ ).

**Conclusions:** Despite hasn't been prevalent, the profile of users who stopped treatment were 20-39 years old, 0-5 years of schooling, evangelical, without contact with a relative with HIV, with CD4 above 350 cells per mm<sup>3</sup>/blood, detectable viral load, which didn't have adverse effects, didn't require assistance to activities of daily life and didn't use drugs.

**Keywords:** Social stigma. Social support. HIV. Antiretroviral.

### FACTORS RELATED STIGMATIZATION AND SOCIAL SUPPORT OF PEOPLE LIVING WITH HIV/AIDS IN THE INTERIOR OF MINAS GERAIS

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**Introduction:** Stigma is the act of prejudging, giving discredit to the other who is different, which can lead to feelings of guilt and shame on the individual, which may affect its relationships and social support received.

**Objectives:** To analyze the factors related to stigma and social support to people living with HIV/AIDS.

**Methods:** Transversal study conducted in 2014 and 2015. Study participants were users of a specialized clinic for people living with HIV/AIDS. Individuals older than 18 years were invited. The gathering was made through individual interviews using semi-structured questionnaire; the data was organized in Excel 2010 and processed in SPSS 23.0. Was used association tests and the correlation coefficient. Was adopted  $p < 0.05$  significance level. All ethical aspects were contemplated.

**Results:** By association, there was a statistically significant difference between the total score of stigmatization with variable exposure to HIV ( $p = 0.021$ ), comorbidities ( $p = 0.015$ ); and between the total score of social support to the occupation variable ( $p = 0.016$ ), sexual orientation ( $p = 0.014$ ), partner diagnostic status ( $p = 0.023$ ), hospitalization ( $p = 0.002$ ), comorbidities ( $p = 0.001$ ) and drug use ( $p = 0.024$ ). In the correlation of scales, there was a statistically significant difference ( $p = 0.003$ ) with -0.185 correlation coefficient.

**Conclusions:** The variables that were associated with stigma and social support were exposure to HIV, comorbidities, occupation, sexual orientation, partner diagnostic situation, hospitalization and drug use. The made correlation presented itself inverted, and although significant, it presented absent or very weak strength. Descriptor: social support; social stigma; HIV.

**Keywords:** Social stigma. Social support. HIV. Antiretroviral.

### WOMEN UNDERGOING BREAST CANCER SURGERY - IMPORTANCE OF REHABILITATION NURSING INTERVENTION

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**Introduction:** Breast cancer has a significant psychological impact affecting women in various dimensions, including body image, interpersonal relationships, daily life and professional activities. The magnitude of this problem was the starting point to develop this research.

**Objectives:** To understand the importance of implementing a rehabilitation program for women subjected to axillary dissection for breast cancer.

**Methods:** A qualitative study. The study sample comprised 10 women undergoing mastectomy and axillary lymph node dissection. Data collection occurred from April to June 2012 in two phases, one before and one after rehabilitation nursing intervention (health education on lymphedema risk reduction measures, rehabilitation exercises, scar massage and arm) once a week for a month period. For data collection, we used a semi-structured interview.

**Results:** Through the analysis performed the following categories emerged, knowledge of complications of treatment, knowledge about precautions to take after axillary dissection, limitations after the sessions.

**Conclusions:** Women breast cancer surgery entails a complexity of physical and psychological consequences. With the intervention of rehabilitation nurses there was an increase in knowledge, of these women, about complications resulting from the surgery and lymphedema prevention measures, improvement in the development of activities of daily living and the range of motion of the ipsilateral limb to surgery, decrease of tissue adhesions and comfort. The intervention of Rehabilitation nurses contributed to the increase in health gains by decreasing hospitalizations and improving the daily lives of these women and the consequent benefit their quality of life.

**Keywords:** Nurse. Rehabilitation. Women with breast cancer. Quality of life.

## THE INTERVENTION OF SECURITY TOWARDS THE WELL-BEING OF AGING COMMUNITIES

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**Introduction:** Community policing have been suggested to be a helpful tool to improve the well-being and quality of the community and the elderly. For this reason, this study aims to define the importance of the integration between security measures by police forces and health policies focusing in the well-being of an elderly Portuguese population.

**Objectives:** To assess the relationship between if community policing and health policies is possible, attesting the adequacy of health policies, concerning the decrease of violence, and consequently the increase of well-being.

**Methods:** In this exploratory study, with a non-probability convenience sample, the approach used, to examine the relation mentioned, was the analysis of community police introduction and levels of violence against the elderly. To perform the test is used a correlation coefficient, along with it a univariate analysis is applied.

**Results:** The positive evolution of community policing, in recent years, has been followed by a positive evolution of violence decrease. The correlation evidences a weak and inverse relation between variables ( $r_{xy} = 0.15$ ;  $p\text{-value} = 0.05$ ).

**Conclusions:** The results seem to show a weak interdependence of the aforementioned variables, meaning that there's is little support that community policing has positive effects on elderly security. Even if the evidence is scarce, there should be an interdisciplinary approach to violence (sociology, criminology, public policy, economics, public health) (Rosenberg & Fenley, 1991), as to ensure an improvement to safety and well-being.

**Keywords:** Aging. Violence. Community policing. Well-being.

## THE HEALTH AND WELL-BEING OF NURSING STUDENTS IN CLINICAL PRACTICE. WHAT PREVENTS IT? WHAT PROMOTES IT?

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**Introduction:** The training of nursing students in clinical practice, is characterized by educational experiences, subject to various emotional stresses, sometimes making them extremely vulnerable. However not all students use the same strategies, identifying also what promotes their learning, thus minimizing the meaning and the negative effects of clinical practice in their health and well-being.

**Objectives:** To analyze the perception that nursing students have about the determinants of their health status and well-being in clinical practice.

**Methods:** Exploratory research of qualitative approach, held on 20 nursing students of the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> years in clinical practice. The data was collected through in-depth interviews. The content analysis was performed using the computer program Nvivo 10.

**Results:** Reveal the complexity of the teaching/learning process in clinical practice, identifying determinants that limit and/or promote health and well-being of students contributing to their motivation, self-confidence and learning. All students value the presence of the following dimensions: humanization in learning experiences; interactions developed with all interveners; competence of the clinical supervisor; adaptation of theoretical knowledge; professional socialization.

**Conclusions:** Although all students evidence these dimensions as fundamental to learn in clinical practice, the study results are dichotomous and ambivalent. Students from 2<sup>nd</sup> and 3<sup>rd</sup> years refer a low perception of them, that become source of concern and uncertainty in clinical learning, limiting their health condition and well-being. Students of the 4<sup>th</sup> year show higher awareness of those dimensions, which then become a source of motivation during learning, and ultimately promoting their health and well-being.

**Keywords:** Nursing student. Practice. Health and well-being.

## INDIVIDUAL INTRINSIC FACTORS THAT INFLUENCED SELF-MANAGEMENT: PATTERNS OF VULNERABILITY AND RESILIENCE

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**Introduction:** Chronic ill persons often had poor control of disease and regimen and many times this is the major cause for re-hospitalizations.

**Objectives:** In this study, we want to know what individual intrinsic factors influenced self-management to create a care model based in the best way to help individual behaviour change.

**Methods:** A longitudinal multiple case-study was designed to follow patients with chronic diseases, and who had five or more re-admissions in the hospital during the twenty-one months previous to the selection. Data were obtained from the analysis of documentation and by the interaction with twenty two participants in their contexts, through participant observation and interviews. The data were analysed according to the method proposed by Strauss and Corbin, to generate a Grounded Theory.

**Results:** Several categories emerged from data related to two central themes: Individual attitudes and health behaviour. These categories - Locus of control, self-determination, decision-making, attitude face disease, attitude face regimen, self-efficacy and interaction with health professionals - allowed identifying four theoretical patterns that we call self-management style: responsible, independent, formally guided and negligent.

**Conclusions:** The knowledge of intrinsic factors related with self-management style enable health professionals anticipate and prevent some individual difficulties in disease and regimen management, adopting tailored interventions with different intentionality and intensity according vulnerability or resilience of each one.

**Keywords:** Chronic diseases. Self-management. Grounded theory. Vulnerability. Resilience.

## VALUES OF LIFE AND PEER EDUCATION IN PORTUGAL AND CAPE VERDE

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**Introduction:** Peer Education is a double empowerment strategy that is used in health education, which can benefit both the peer educator and the target person. Usually these educators are integrated in volunteer projects so we consider important to know their values of life and priorities in different roles associated with be volunteer in peer education.

**Methods:** The research focused intentionally on 396 students of higher education in Portugal and Cape Verde. We combine qualitative and quantitative methods for collecting the data by self-report questionnaire.

**Objectives:** We explored the relationship between the importance attributable to values of life and socio-demographic characteristics, lifestyles, sense of internal coherence and self-esteem.

**Results:** We believe it is globally considered the motivation for volunteering from the recognition of the validity and importance of the project and by identifying values that were associated with it, such as “Responsibility” and “Caring for others and family”. The highest scorer’s life values were the “Responsibility” and “Concern to others and family”, for both groups (Portugal and Cape Verde).

**Conclusions:** The results of this research show the added value of including in the training of peer educator’s reflections about life values as a strategy for greater self-reliance, resilience and personal and social responsibility. It can also enable more meaningful reflections so that they feel more confident in interventions in the field. This research was a preparatory study, within the framework of the PEER course, to design and validate training paths more focused educators in self-reflection and life values.

**Keywords:** Life values. Volunteering. Peer education.

### LIFE QUALITY IN THE WORK CONTEXT OF NURSING TEACHERS

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**Introduction:** The development of new organization and work management models, with increasing use of information and communication technologies combined with comprehensive dynamics of globalization and economic restructuring, allows the dimension of work to take a leading place in the worker’s quality of life related to the organization of time, obtaining economic resources and identity of personality construction as structural elements of life. To respond to the dimensions of quality of life in the workplace of nursing teachers, we outlined the following

**Objectives:** To evaluate the QOL (Quality of Life) and the QWL (Quality of Working Life), relate to QV with sociodemographic variables and characteristics organizational and correlating the dimensions of QOL and QWL.

**Methods:** Cross-sectional study, quantitative, observational, descriptive and correlational level II. Sample of 183 nursing teachers in Portugal with data collection carried out by self-report questionnaire, using Quality of life scales.

**Results:** In all dimensions, teachers have a positive perception of QOL (> 50). With an average value observed for the overall scale (overall QOL and general health perception) of 70.29, with a standard deviation of 15.28, the median was 75. What enables us to say the teachers.

**Conclusions:** Teachers perceive a positive QOL. The “stress at work” is where teachers are less satisfied with their QWL. If there is a greater perception of QWL by most teachers, larger is also their overall QOL, which means that there is a significant relationship between the quality of life related to the work on teachers and their overall quality of life in all dimensions evaluated.

**Keywords:** Teachers. Nursing. Work. Quality of life.

### QUALITY OF LIFE OF PEOPLE WITH DIABETIC FOOT ULCERS: INTEGRATIVE LITERATURE REVIEW

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**Introduction:** Diabetic foot ulcer is one of the most concerning complications of the diabetes mellitus, causing severe alterations on quality of life of people with this type of wound. To improve patient care, we need to understand this impact.

**Objectives:** To identify alterations on quality of life domains due to the presence of the diabetic foot ulcer and to analyse the influence of clinical aspects on quality of life domains.

**Methods:** An integrative literature review was conducted, using a literature search in the following databases: Scopus, Web of Science, B-on, PubMed, Science Direct, SciELO and Wiley Online Library and integrated the articles published between 2006 and 2015. The article selection process was performed in the following phases: title reading; abstract reading; integral reading of the article and assessment of their quality. In each phase was applied inclusion and exclusion criteria. It was selected for our final sample, a total of 8 articles.

**Results:** The diabetic foot ulcer causes pain, limits mobility and the execution of activities of daily living, it has a negative impact in the psychological health, generates negative feelings, it limits social contacts and worsens the general health. A highest degree of ulcer, the presence of obesity and other co-morbidities are associated with a poorer quality of life.

**Conclusions:** Patients with diabetic foot ulcer assess their quality of life less poorer than people without this chronic wound. The physical domain has more evident impact. The rest of the domains are negatively affected. It was observed that the clinical aspects influences quality of life.

**Keywords:** Quality of life. Diabetic foot. Foot ulcer.

### RESILIENCE FOR HOSPITAL QUALITY OF LIFE PROMOTION IN ONCOLOGICAL CHILDREN AND ADOLESCENTS’ INFORMAL CAREGIVERS

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**Introduction:** A child’s oncological disease brings about changes in the family structure and consequently in the caregiver, who is responsible for his/her assistance and care. The worries with his/her well-being and emotional balance emerge in second place.

**Objectives:** This study’s goal is identify the resilience strategies the informal caregiver of children and adolescents with oncological disease look for in the quality of life in hospital context.

**Methods:** Quantitative and qualitative study with data triangulation consisting of the following instruments: Socio-demographic questionnaire and a semi-structured interview are used. Five caregivers were interviewed.

**Results:** Content analysis showed the most common strategies used to overcome the disease in a positive and constructive way and what caregivers miss more in their hospital, making it possible to assemble some of the main axels which allowed the elaboration of a paper of good practices for caregivers.

**Conclusions:** In order to foster this positive focus, the existence of a plan that enhances the emotional empowerment of primary caregiver through the promotion of physical, psychological and spiritual well-being and entrepreneurship activities during the period of hospitalization of their child/adolescent, is the proposal which is listed after the methodological analysis performed.

**Keywords:** Pediatric oncology. Family quality of life. Caregivers. Resilience. Mental health.

### QUALITY OF LIFE IN NURSING

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**Introduction:** The concept of quality of life in nursing has a place of great importance in health organizations. The quality

of health services is also measured by the satisfaction of professionals.

**Objectives:** To evaluate the quality of life of nurses in three hospital units ULSNE.

**Methods:** The sample consisted of 124 nurses in three hospital units ULSNE. The questionnaire consists of the SF12 scale (Ferreira, 1992) and is composed of 12 items that make up eight dimensions. They are aggregated into two components, physical and mental designated by MSF and MSM. It is a descriptive, exploratory study with a quantitative approach. Sampling is not probabilistic.

**Results:** We found that there are statistically significant differences in MSF with regard to age, professional category and contractual arrangements. In MSM observed statistically significant differences with regard to marital status and profession.

**Conclusions:** The identification of these relations is very important in health organizations. Facilitates decision making and therefore the provision of better health care.

**Keywords:** Quality of life. nurse.

## 11. HEALTH AND MINORITIES

### THE ACCESS TO HEALTHCARE SERVICES BY THE UKRANIAN IMMIGRANTS - FACTORS THAT PLAY A PART

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**Introduction:** The constant presence of immigrants in Portugal and the coexistence of diverse cultures impose changes in the behavior of healthcare professionals in relation to access to health care services.

**Objectives:** Determining the factors influencing the demand for health care by Ukrainian immigrants in the metropolitan area of Porto.

**Methods:** Exploratory and descriptive study of both quantitative and qualitative nature. The information was gathered by questionnaires from a convenience sample of 212 Ukrainians immigrants residing in the metropolitan region of Porto and eleven interviews.

**Results:** There were detected difficulties in accessing healthcare arising from the language barrier and/or different interpretations along with the disarticulation between the various support services for immigrants, ineffective communication, cultural barriers, beliefs, difficulty in combining schedules, costs of treatment, lack of rights as an immigrant, illegal situation and consequent fear of discrimination. The lack of information, particularly concerning the access to healthcare for undocumented immigrants and the fear of having their condition told out to the authorities causes them to avoid attending healthcare services, resorting to other alternative services where the - lack of - documentation is not a determinant factor.

**Conclusions:** The necessity to train and to create awareness between all the professional that deal with immigrants, and also all healthcare professional. It is suggested to perform longitudinal studies for transcultural approaches with immigrants of different ethnic groups with different cultures and values, in order to improve the cultural competency of healthcare professionals.

**Keywords:** Ukrainian immigrants. Access to Healthcare care. Cultural diversity and transcultural nursing. Human Rights.

### SCABIES IN A LOCAL ROMA COMMUNITY, A PROBLEM OR AN OPPORTUNITY? A CASE STUDY

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**Introduction:** In general, the Roma Community in Portugal is a population who is living a profound social exclusion process that results in poor housing conditions, health and sanitation, low literacy rates, marginalization at work, incidence of some diseases, stereotypes and social cultural segregation. Many communities live without water, sewages and electricity, which make personal hygiene and housing conditions inadequate leading to scabiose.

**Objectives:** To show how to approach a parasitic disease in a specific community: a local Roma Community.

**Methods:** This is a qualitative case study of research-action. Strategically it involved many institutions: the school (which signaled the problem), the local authorities, the social institutions and the health center, to resolve a parasitic problem of high spread (scabies) in a specific community, with no water at home.

**Results:** With this community we have negotiated wash and dry personal clothing and bedding using industrial machines at high temperatures and the realization of baths with antiparasitic application in 6 of 7 families (30 people agreed to participate) in the locker room of a local football club. One family refused to participate. Scabies ceased to exist, but the community itself requested the continuation of professional football club baths, which have maintained a weekly periodicity. The next step will be to work hygiene in house.

**Conclusions:** The results show that a collaborative work between the health center and the local Roma community has proved very effective in eliminating scabies. We believe that this work will enhance improvements in personal hygiene and housing. Therefore this will be an opportunity to improving the lifestyles of this kind of communities, respecting their cultural values.

**Keywords:** Scabies. Roma community. Personal hygiene.

### APPLICABILITY OF THE TRANSCULTURAL NURSE - MODEL BY JOSEPHA CAMPINHA-BACOTE

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**Introduction:** Respect for cultural differences, habits and customs leads us to reflect on interculturality in nursing care, increasingly visible through migratory processes due to global contingencies. Campinha-Bacote understood this need, and developed her work in the field of cultural competence of health professionals. The Model of Cultural Competence Process is an ongoing process in which the professional tries to work effectively within the cultural context of the customer (individual, family, community) and covers five cultural constructions (ASKED): Awareness, Skill, Knowledge, Encounters, and Desire. This model allows nurses to examine their own cultural skills through self-examination questions about consciousness, the ability, and cultural knowledge: What do I know about the other? What is my interest in the interaction? Do I intend to become culturally competent? (Campinha-Bacote, 2011).

**Objectives:** To reflect on the practical applicability of the Model of Cultural Competence Process in nursing care.

**New perspectives:** To consider the direct relationship between the level of competence of care providers and the ability to provide culturally sensitive health care. Theoretical and practical implica-



tions: It is impossible to provide quality care without knowing what is “normal/abnormal” and the perception of disease (experiences and experiences) of people cared for, their culture.

**Conclusions:** The ethnocentric points of view and inadequate training of health professionals appear as barriers to cross-cultural care, emerging with the desire to want to learn more and be able to recognize the other as a person in possession of untold wealth that is their culture.

**Keywords:** Transculturality. Cultural Competence. Nursing.

## ADDRESSING THE HEALTH NEEDS OF THE IMMIGRANTS LIVING IN THE COUNCIL OF SÃO BRÁS DE ALPORTEL

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The recent history of Portugal reveals major changes in the migration paradigm, making Portugal a multi-ethnic and multicultural country. The growth of international migration in modern societies has determined a progressive increase in cultural diversity. Therefore new challenges arised when assessing the needs and providing services to residents with different cultural backgrounds. To address the cultural diversity it is required adaptability and awareness from the health services, moreover in a context of economic crisis like the current one. In the current state of knowledge policies and strategies must be sensitive to cultural diversity and adapted to different contexts that come with the migratory phenomenon, in order to have an effective response to the health needs of the immigrants. The main goal of this study is to address the health needs of the immigrants living in the council of São Brás de Alportel. This is a quantitative descriptive and cross-sectional study with a snowball sampling of 89 immigrants living in the council of São Bras de Alportel. To perform the data collection it was used a questionnaire, whereas SPSS software (version 21) was used for data analysis. This study resulted in the identification of several health problems of immigrants, such as: 54% have problems in terms of accessibility to health care; 51% suffer from hypertension, diabetes or dyslipidaemia; 41% have a sedentary lifestyle and 33% are pre-obese. The results highlight the imperative need to change health policies and strategies, in order to reduce inequalities of accessibility to health care and to promote healthy lifestyles for immigrants.

**Keywords:** Immigrants. Diversity. Health needs. Accessibility.

## 12. HEALTH AND NUTRITION

### PERCEPTION OF HEALTH BENEFITS OF DIETARY FIBRE AMONG THE PORTUGUESE POPULATION

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**Introduction:** Dietary fiber (DF) has been part of human diet since ever, and its benefits for the human health have been well estab-

lished and scientifically confirmed. Among these stand improved gastrointestinal functions, prevent cholesterol, diabetes or CVD.

**Objectives:** To study the level of knowledge of people residing in Portugal about the health effects related to an adequate ingestion of DF.

**Methods:** This is a descriptive cross-sectional study carried out on a non-probabilistic sample of 382 adults residing in Portugal. The questionnaire included a section about the socio-demographic characteristics (age, gender, level of education and living environment) and another about the relation between dietary fiber and possible beneficial effects to treat and prevent diseases. The data was treated using the SPSS software (V22).

**Results:** The results allowed concluding that people were differently informed about the effects of DF in preventing and/or treating different diseases, being constipation the most recognized, followed in decreasing order by obesity, bowel cancer, cholesterol, cardiovascular diseases, diabetes and breast cancer. The results also showed that significant differences were encountered between age groups for most of the diseases evaluated, but not between genders, levels of education or living environments.

**Conclusions:** Generally, it was concluded that the participants in this study were relatively well informed about the roles of DF in preventing and/or treating various diseases.

**Keywords:** Fiber. Health. Diabetes. Cancer. Obesity. Constipation.

### MEASURING NUTRITION LITERACY ON A PORTUGUESE POPULATION

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**Introduction:** Nutrition plays a role in the prevention and treatment of chronic diseases. In order to promote healthy eating habits, and consequently reduce obesity and associated diseases, it is important that the population possesses an adequate knowledge on food and nutrition.

**Objectives:** To measure the nutrition knowledge of a Portuguese population, residing in the Lisbon area.

**Methods:** This is a descriptive and analytical study of 101 volunteers living in the Lisbon area, with ages ranging from 18 to 74 years old. The assessment of nutrition knowledge was achieved through the application of an adapted version of the Nutritional Knowledge Questionnaire. Statistical analysis was performed using the computer software PSPP, version 0.8.5. From the sum of the scores given for each variable, an average of correct answers was calculated and used as a basis for the creation of a categorized nutrition score.

**Results:** From the 101 volunteers inquired, 59 were female (58.4%) and 42 were male (41.6%). Most of the tested subjects were 18 to 24 years old (42.6%). The issues which revealed a lesser knowledge were those related to the topic fats. For example, only 27 (26.3%) of the subjects recognized dairy foods as containing saturated fats. Moreover, about 70% of the population knew the number of recommended daily fruit portions. Using the scale of literacy in nutrition (scores between 0 to 105), created for the Portuguese population, it was verified that 49.5% of the sample gave between 63 to 87 correct answers, showing a medium level of literacy in nutrition.

**Conclusions:** This study allowed not only to know the nutrition literacy of a Portuguese population but also to create a Portuguese nutrition literacy scale which can be applied to all the population after validation.

**Keywords:** Nutrition literacy. Scale. Food. Portugal.

## EVALUATION OF JUICE FRUITS AND NON-CARBONATED SOFT DRINKS CONSUMPTION IN UNIVERSITY STUDENTS

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**Introduction:** The knowledge in the health area may not influence students' lifestyles, because these students do not always present healthier lifestyles, including the dietary practices, because they consume high amounts of non-healthy food.

**Objectives:** The purpose of this study is to evaluate if there are any differences in the consumption of fruit juices and non-carbonated soft drinks between the students of dietetics and nutrition, health sciences and other educational areas.

**Methods:** This study is an observational study with a sample of 256 volunteer university students, which intended to evaluate the fruit juices and non-carbonated soft drinks consumption through the application of a questionnaire based on Food Frequency Questionnaire of the unit of Nutritional Epidemiology of the Hygiene and Epidemiology Department of the Faculty of Medicine, University of Porto.

**Results:** The students of dietetics and nutrition are the students that consume less often and fewer fruit juices, non-carbonated soft drinks and non-carbonated light soft drinks. Students of health sciences and other educational areas show an average frequency and amount of consumption of these drinks quite similar, with no statistically significant differences.

**Conclusions:** The results showed that students with knowledge in health area may not put into practice their academic knowledge. However, students of nutrition show a lower intake of juices and non-carbonated soft drinks, which may indicate that these students take into account their eating behaviour concerning these drinks.

**Keywords:** Juices. Soft drinks. University students.

## CHARACTERIZATION OF FOOD CONSUMPTION, PHYSICAL ACTIVITY PATTERNS, AND EVALUATION OF SATISFACTION WITH BODY IMAGE

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**Introduction:** Adolescence predisposes to an inadequate dietary pattern and a decline in levels of physical activity, which negatively influences the adolescent nutritional status. Satisfaction with body image, despite being an individual judgment, varies according to the weight.

**Objectives:** Characterize the food consumption, physical activity patterns and evaluate satisfaction with body image of adolescents with overweight and obesity.

**Methods:** We conducted a cross-sectional observational analytical study in which data were collected through the measurement of weight and height, and by completing two questionnaires. To evaluate the nutritional status consulted the percentile curves of Body Mass Index (BMI) of the World Health Organization (WHO) that it related the weight and height with age and gender. Integrated this study 30 adolescents aged 10 to 18 who attend Nutritional and Dietetics consultations. Data were analyzed using SPSS version 20.0.

**Results:** 23.3% were overweight and 76.7%, were obese, with a mean age of 12.7 years  $\pm$  2.18. The consumption of foods high in simple sugars and saturated fat is higher in the obese group, verifying statistically significant differences in fruit nectar consumption ( $p = 0.011 < 0.05$ ) and soda ( $p = 0.038 < 0.05$ ). Teens spend most time in sedentary behaviors. The two weight groups reveal dissat-

isfaction with body image, with statistically significant differences ( $p = 0.014 < 0.05$ ) between the class ages.

**Conclusions:** Food consumption and physical activity patterns of adolescents deviates from the recommendations and dissatisfaction with body image is transverse to the two weight classes. It would be pertinent to realize more studies related to this subject.

**Keywords:** Adolescence. Nutrition. Physical activity. Body image.

## FAT-FREE MASS DETERMINANTS IN MIDDLE-AGE AND OLDER PATIENTS WITH TYPE 2 DIABETES

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**Introduction:** Insulin resistance, high blood glucose levels and aging are associated with several impairments in the neuromuscular system and changes in intrinsic muscle properties, leading to a decline in muscle mass, strength and aerobic capacities, metabolic rate, and functional capacity.

**Objectives:** The purpose of this study was to analyze the determinants of fat-free mass (FFM) in middle-aged and older patients with type 2 diabetes.

**Methods:** This was a cross sectional study where demographic (gender, age and diabetes duration), anthropometric (weight, height, body mass index and waist circumference), metabolic (glycated hemoglobin [HbA1c]) and physical fitness (Seated Medicine Ball Throw Test [SMBTT, upper limbs] and 30 second Chair Stand Test [30SCST, lower limbs]) variables were gathered in a linear regression model to predict FFM.

**Results:** FFM showed significant correlations with weight ( $r = 0.707$ ;  $p < 0.001$ ), height ( $r = 0.852$ ;  $p < 0.001$ ), waist circumference ( $r = 0.338$ ;  $p = 0.001$ ), SMBTT ( $r = 0.775$ ;  $p < 0.001$ ), and significant differences between genders ( $p < 0.001$ ). There were not found significant correlations between FFM and age ( $r = -0.120$ ;  $p = 0.249$ ), diabetes duration ( $r = 0.061$ ;  $p = 0.557$ ), HbA1c ( $r = 0.087$ ;  $p = 0.400$ ), body mass index ( $r = 0.123$ ;  $p = 0.233$ ), and the 30SCST ( $r = 0.115$ ;  $p = 0.275$ ). The regression model was capable of predicting 94% of FFM ( $R^2 = 0.940$ ;  $R^2_a = 0.938$ ). The most preponderant variable was gender ( $\beta = 0.578$ ), followed by anthropometric characteristics ( $\beta = 0.397$ ) and SMBTT ( $\beta = 0.174$ ).

**Conclusions:** Being female gender, having less weight, height and waist circumference, and worst performance in SMBTT are factors that may predict lower FFM and consequently higher sarcopenia levels.

**Keywords:** Fat-free mass. Type 2 diabetes. Sarcopenia.

## FOOD SUPPLEMENTS AND RELATED SUBSTANCES CONSUMPTION IN GYM USERS OF BRAGANÇA AND BELO HORIZONTE

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**Introduction:** Food supplements and related substances (FSO) are used for decades to increase the performance of exercise practitioners and achieving sporting advantage. The major concerns in FSO consumption are the gaps related to the production, commercialization and counseling of these substances.

**Objectives:** The present study aimed to characterize the consumption of FSO in gym users, according to sociodemographic and personal variables and sport practices.

**Methods:** A cross-sectional, descriptive and correlational study was performed through application of a questionnaire to 340 individuals users gyms of Belo Horizonte, Brazil and Bragança, Portugal.

**Results:** Globally, 42.1% were or are consumers of FSO, and of these, 36.8% consumes FSO more than two years. Is noted a higher consumption in Belo Horizonte (53.3%) compared to Bragança (38.4%) city where the consumers are younger. Gender appears as a variable with a statistically significant influence (p-value < 0.001) in both cities, where the men leads the consumption of FSO, representing 67.9% and 59.0% in Belo Horizonte and Bragança, respectively. Overall, bodybuilders have a higher percentage of consumption of FSO (52.8%), comparing to other practiced modalities and the main objectives of the use of FSO are the fast recovery between training sessions (31.6%), followed by increased muscle mass (29.4%). Proteins were the substances most used in Bragança (76.0%) while in Belo Horizonte the energy drinks were the most reported (79.2%). It is noteworthy that one third of respondents have received no counseling before taking FSO and 41.7% indicates not aware of any consequence of FSO long-term use.

**Conclusions:** The study highlights the high percentage of FSO consumption in order to improve the physical performance.

**Keywords:** Food supplements. Consumption. Gym users.

### BEING A VEGETARIAN: A SYSTEMATIC REVIEW ON THE EFFECTS OF VEGETARIANISM ON MENTAL HEALTH

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**Introduction:** Vegetarianism is becoming an increasingly popular choice which can be defined as a belief or practice of eating foods obtained mostly from the vegetable kingdom. Most research focus on physical health and there is a dearth of literature about its effects on mental health.

**Objectives:** The aim of this paper is to do a systematic review of vegetarianism effects on mental health.

**Methods:** Search was conducted using ISI-Web of Science database, with key-words 'effects' or 'impacts' or 'consequences' or 'benefits', 'mental health' and 'vegetarianism' or 'vegetarian' and refined by scientific area 'psychology'. Empirical papers (all years and countries) which reported vegetarianism effects on mental health were included. We excluded theoretical and purchased papers, as well as articles written in German, Corean and Mandarin. So, initially, 38 publications were retrieved but only 21% were included in the review.

**Results:** Four categories of vegetarianism effects on mental health emerged: i) eating disorders (e.g. more restrictive behaviors; less obesity); ii) socioemotional and personality (e.g. higher empathy; more internal conflicts; openness to change); iii) well-being and life style (e.g. healthy habits; higher physical and psychological well-being); iv) ethics and environment (e.g. more ethical concerns; lower carbon footprint).

**Conclusions:** Overall, there are very few studies in this field. The polysemy around the subject is enormous: vegetarian, semi-vegetarian, flexitarian, vegan and so on, which difficults its study. The main conclusions of this research points us to the emergence of effects that flow into a 'vegetarian identity', involving life-style, beliefs, psychosocial aspects and options beyond food selection, which compels us to further studies.

**Keywords:** Vegetarianism. Mental health. Systematic review.

### ORTHOREXIA NERVOSA: ARE THE NUTRITION STUDENTS MORE LIKELY TO DEVELOP IT?

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**Introduction:** Orthorexia nervosa (ON), first described by Bratman in 1997, is an obsessive pathological behaviour characterized by a strong preoccupation with healthy eating and the avoidance of foods or ingredients considered unhealthy by the subject, that in fact are leading to malnutrition and/or impairment of daily functioning.

**Objectives:** To investigate whether students of Dietetics and Nutrition are more likely to develop ON compared to students from other degrees of health.

**Methods:** This is a cross-sectional observational study with a sample of 368 students attending the various degrees of Coimbra Health School. We proceeded to the anthropometric (weight and height); checking the existence of possible behaviours suggestive ON (ORTHO-15 test) and also the distortion of body image (scale Stunkard silhouettes). Statistical analysis was performed with SPSS 22.0 software.

**Results:** Of the 368 students, 85.1% were female and only 14.9% of males, with a mean age of 20.21 ± 2.04 years. We found that, there was more expression behaviours suggestive of ON in second year (39.4%) and in degree of "Nutrition and Dietetics" (22.7%). Similarly, students who exhibit this type of behaviour were those who reported having a "normal" weight (79.9%), practiced exercise "occasionally" (54.0%), did not smoke (76.4%) "rarely" consumed alcohol (39.0%) do not follow an alternative type of diet (93.9%), and only 35.1% were found to have distorted body image.

**Conclusions:** Through the results it can be concluded that in fact the Nutrition students are more likely to develop these behaviours, compared to students of other degrees. However, more studies will be needed to build more solid conclusions, since, in Portugal, there is no scientific evidences relating to this topic.

**Keywords:** Orthorexia nervosa. Nutrition students. ORTHO-15.

### JUVENILE FEEDING BEHAVIOR: COMPARISON BETWEEN URBAN AND RURAL AREAS

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**Introduction:** Nutrition plays a crucial role throughout the life of the human being. Since the 70s, the prevalence of obesity has tripled in younger population, thus, nutritional assessment is essential as the nutritional status may be reflected in the child's health and future adult. Lifestyle, availability and cost of food, socio-economic, psychological and sensory factors, mostly influence the food standard.

**Objectives:** Evaluate a population of adolescent between 12 and 15 years, comparing two groups (urban and rural) and detect possible stat-weight and socioeconomic deviations.

**Methods:** This is a observational and descriptive study with a sample of 94 students, 50 from Escola E.B 2,3 da Guia and 44 students

from Escola Secundária c/3<sup>o</sup> CEB Dr. Joaquim de Carvalho. Anthropometric assessment, eating habits and personal data were collected through surveys. Statistic analysis was carried out using the IBM SPSS Statistics - version 23.0.

**Results:** In general there were significant differences in parents' profession classification, energy consumption (kcal/day), distribution of macronutrients, consumption of some foods, particularly fast-food ( $p < 0.05$ ). Revealed the existence of about 26% with overweight or obese.

**Conclusions:** There is a need of further intervention in this age group, promoting healthy lifestyles, particularly with the focus to nutrition and physical activity that will enable to achieve appropriate stat-weight values and contribute to the acquisition of healthy eating habits.

**Keywords:** Eating habits. Urban areas. Countryside. Young.

### ASSOCIATION BETWEEN THE NUTRITIONAL RISK WITH SEX, FOOD INTAKE AND FUNCTIONAL CAPACITY IN INSTITUTIONALIZED ELDERLY

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**Introduction:** Malnutrition is defined as the state of insufficient ingestion, absorption or use of energy and nutrients and its prevalence is high in institutionalized elderly.

**Objectives:** This study aims to evaluate the nutritional risk of institutionalized elderly and its relationship with sex, food intake, polypharmacy, level of dependence, number of chronic diseases, years of institutionalization and age.

**Methods:** Nutritional risk was assessed using the Mini Nutritional Assessment (long form). Food intake was assessed with the Food Frequency Questionnaire and 24-hour food intake record. Functional capacity was evaluated through the adapted Barthel Index.

**Results:** Mean of age 83.32 (SD = 9.07),  $n = 55$ . Most of the elderly (63.6%) were at risk of malnutrition. The female sex presented an overall bigger risk of malnutrition (78.8%) ( $p = 0.002$ ), as well as the more dependent elderly ( $p < 0.001$ ), while all of the independents were well nourished. The individuals on a texture modified diet presented a bigger risk of malnutrition ( $p = 0.004$ ), with special attention to those on a liquid diet which were all malnourished. The individuals at risk and malnourished had a significantly diminished consumption of energy and protein, in comparison with the well nourished peers.

**Conclusions:** The malnourished elderly ingested less energy and protein, had a texture modified diet and were more dependent. A nutritional intervention performed by a nutritionist is mandatory in this population.

**Keywords:** Nutritional risk. Elderly. Malnutrition.

### INCOME LEVEL AND NUTRITION-RELATED KNOWLEDGE IN PATIENTS WITH TYPE 2 DIABETES

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**Introduction:** Income level is known to affect the health of individuals and communities. Epidemiologic data has demonstrated

that diet quality follow a socioeconomic slope. Nutrition-related knowledge is a basic condition to make healthy food choices and to have a good quality diet and therefore to control type 2 diabetes and other chronic diseases.

**Objectives:** This study aimed to assess nutrition-related knowledge in middle-age and older patients with type 2 diabetes in different levels of personal monthly net income.

**Methods:** Nutrition-related knowledge was assessed using the Portuguese reduced version of the Nutritional Knowledge Questionnaire (Parmenter & Wardle, 1999) in 46 individuals with type 2 diabetes (29 women and 17 men;  $62.96 \pm 7.15$  years of age;  $5.17 \pm 3.74$  years of diabetes duration) candidates to Diabetes em Movimento<sup>®</sup> Vila Real, a community-based lifestyle intervention program developed in Portugal (NCT02631902). This version of the questionnaire consists of three sections (dietary recommendations [DR, 0-6 points]; sources of nutrients [SN, 0-34 points]; and diet-disease relationship [DDR, 0-16 points]), totaling a maximum score of 56 points. Personal monthly net income was categorized in three levels: until 500€ ( $n = 22$ ); between 500 and 1,000€ ( $n = 14$ ); and more than 1,000€ ( $n = 10$ ).

**Results:** No significant differences between income levels were observed on total score ( $F = 1.126$ ;  $p = 0.334$ ), DR ( $F = 0.217$ ;  $p = 0.806$ ), SN ( $F = 1.265$ ;  $p = 0.292$ ) and DDR ( $F = 0.659$ ;  $p = 0.523$ ).

**Conclusions:** In this sample of patients data does not support a relation between personal monthly net income and nutrition-related knowledge.

**Keywords:** Nutrition-related knowledge. Income level.

### AN INTERVENTION ON EATING HABITS OF CHILDREN OF A GROUP OF SCHOOLS IN PORTALEGRE

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**Introduction:** Children's diet at the school groups Jose Regio and Bonfim were analyzed, and intervention study was carried out.

**Objectives:** To improve the quality of diet and health status of children in the school groups Jose Regio and Bonfim.

**Methods:** Anthropometry and diet information of children and teenagers between 6 up to 17 years were collected in three distinct periods: 2009; 2012 and 2015. In the interim period, the "Healthy Eating Project" was implemented within the classroom, school and community, for the school groups Jose Regio and Bonfim.

**Results:** After the intervention "Healthy Eating Project", there was an increase in consumption of legumes, vegetables and water and a reduction of high-energy/high-sugar foods: soft drinks, cakes and "fast-food". In addition to the diet changes, there was a decrease in abdominal obesity values of 12.3% in the Jose Regio Schools Group and 9.2% in the Bonfim Schools Group.

**Conclusions:** We propose similar initiatives to change the diet of children and young people.

**Keywords:** Waist circumference. Obesity. Eating habits.

### SNACK OR NOT TO SNACK? - AN ASSESSMENT CONTRIBUTION

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**Introduction:** Eating between meals lost the reputation of being a bad habit and began to be a healthy practice that keeps

metabolism up and sustain energy. However, currently concept of snack is associated with frequency and amount but not with food nutritional value. Unhealthy and low nutritional or high nutrient content and fibers quality foods are both considered snacks. This fact associated with the epidemics of obesity and type 2 diabetes, imposes a question “snack or not to snack: are we doing the right choice?”.

**Objectives:** Portuguese reality was studied in order to draw attention to the benefits/risk of snacking behavior.

**Methods:** An evaluation survey has been carried out based on snacking knowledge and behavior. It has been target at Portuguese people over 18 years. Data were statistically analyzed and association between variables was measured.

**Results:** Survey was answered by 704 persons being 681 data validated; 79.1% female and 20.9% male. Sex differences were found for snack definition, while women associated it with timing and amount, men associated it with satiety. Regarding snacking behavior the majority of women opted for snacking whereas men preferred not to do it. An optimistic result was that snacking people are in those who identified better and healthy snack options revealing a high nutritional literacy.

**Conclusions:** In order to reach a systematic information dissemination as a form of publicizing snacking good practices, it is mandatory to clarify snack definition. It was also possible to infer the need to include vegetables as a healthy option for a break between meals. Therefore, we believe that the findings of this survey have great public health importance not only for Portugal, but also for benefit those who have a busier lifestyle.

**Keywords:** Snacking. Snack literacy. Snack options. Satiety. Meals replace.

**Results:** The GEXERCISE-SCHOOL obtained results statistically significant ( $p \leq 0.05$ ) and more favorable, in the Systolic and Diastolic Blood Pressure and all spirometric values assessed, compared to GSEDETERARY. In relation to smoking habits was found that non-smokers achieved a statistically different results and more favorable in the evaluated variables. We also found a negative correlation between the consumption of tobacco and spirometric values, ie, it appears that a higher tobacco consumption, as lower spirometric values.

**Conclusions:** The supervised exercise practice appears to contribute to the improvement of some physiological parameters, providing increased functionality and decreasing the appetite for cardiovascular and respiratory diseases. In turn tobacco use appears to result in injury, negatively influencing health status.

**Keywords:** Physical activity. Physiological parameters. Smoking. Sedentary lifestyle.

### CLASSROOM TEACHERS' PERCEPTION ABOUT PHYSICAL EDUCATION AND PHYSICAL ACTIVITY: A TYPOLOGY

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**Introduction:** According to the socioecological model teachers may act as facilitators or barriers in a school physical activity (PA) program.

**Objectives:** The purpose of this study was to characterize classroom teachers' perceptions about Physical Education (PE).

**Methods:** 297 teachers answered a questionnaire about PE past experience, status, aims, and academic benefits of PA. The Multiple Correspondence Analysis was used aiming to identify teachers' profiles.

**Results:** Dimension 1 combines the view that the PA affects academic achievement (AA) with the idea that PE must be optional or compulsory, but non-examinable. In dimension 2 the biggest difference is between a standard that refers to a relatively neutral position in relation to PA (PE as important for promotion of healthy lifestyles associated with the idea that PA does not affect AA, and PE should be compulsory but non-examinable), as opposed to positions, either in favour (PA benefits AA and PE should be compulsory and examinable) or against PA (PE should be optional). The joint analysis of the two dimensions allowed to identify three distinct patterns of teacher's perceptions which made possible to build a typology, regardless the cluster they belong to. Considering their personal experience teachers make a misjudgment of PE in schools they attended specially in cluster 3. As for the relation between PA and AA, most teachers say that the PA benefits AA (65% in cluster 1; 96% in cluster 2). In cluster 3, 70% of the teachers say that PA impairs AA.

**Conclusions:** These results support the importance of the earliest good experiences in PE, in generating positive attitudes towards PE. PE teachers should explain to other teachers that PA does not affect academic performance, and that PA prevents deviant behaviours.

**Keywords:** Cluster analysis. Perception. Physical activity. Classroom teachers.

## 13. HEALTH AND PHYSICAL ACTIVITY

### SMOKING AND PHYSICAL ACTIVITY: INFLUENCE ON PHYSIOLOGICAL PARAMETERS WITH IMPACT ON HEALTH STATE OF HIGH SCHOOL STUDENTS

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**Introduction:** Cigarette smoking and physical activity (PA) are two determinants variables to health.

**Objectives:** This study has as main objective to verify the influence of PA and tobacco consumption at the level of physiological parameters with an impact on health status of sedentary individuals and with differentiated exercise practice, in students of higher education. We also intend to correlate these measured indicators.

**Methods:** Sample with 132 students divided into 3 groups: GEXERCISE-SCHOOL-58 students practitioners of supervised exercise (academic and extracurricular); GSCHOOL-44 students practitioners of supervised exercise (school); GSEDETERARY-30 sedentary students. To characterize the sample, we applied an adaptation of the questionnaire Telama et al. (1997). It was Evaluated the spirometry values (PEF; FEV1; FVC) and blood pressure. We have used the Mann-Whitney test, ANOVA (LSD); Pearson and Spearman correlation test.

## PREVALENCE AND CORRELATES OF ACTIVE COMMUTING AMONG PORTUGUESE ADOLESCENTS CONSIDERING THE HOME-TO-SCHOOL DISTANCE

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**Introduction:** Active commuting to and from school (ACS), defined as the use of active means such as walking and cycling, is an important contributor of youth health. However, the prevalence of youth ACS is low.

**Objectives:** To analyse the prevalence and potential correlates of ACS among adolescents that lived near (< 2 miles) and far (≥ 2 miles) from school.

**Methods:** Participants were 391 adolescents (189 boys; 14-18 years). A questionnaire assessed active (walk and cycling) and passive (car, bus, motorcycle) commuting behaviours, potential correlates and perceived barriers of ACS. Between-group comparisons were performed by ANCOVA (using school as covariate) and chi-square tests.

**Results:** About 2/3 of adolescents lived near school. For the 'near group', walking to and from school (47.8% and 55.5%) was more common than cycling (< 1%). Public transports was most used to commute to and from school (42.0% and 53.8%) by the 'far group', followed by car (36.1% and 18.5%). Having a family with a low SES ( $p = 0.05$ ) and 9 years of education ( $p = 0.001$ ) was associated with living near the school. Comparing to the 'far group', those who lived near were younger ( $p < 0.001$ ), had a low SES [ $p = 0.05$ ], reported more time in ACS ( $p < 0.001$ ). Those who lived far had significantly higher ratings on 10 of 17 specific barriers of ACS, such as 'stuff to carry', 'dangerous crossings', 'no bike lanes' and 'don't enjoy walking/biking'.

**Conclusions:** There is much room for ACS improvement among Portuguese adolescents that lived near and far from the school. Interventions promoting bicycle use and addressing multiple perceived barriers, such as those related to traffic safety, have the potential to increase ACS.

**Keywords:** Active transportation. Psychosocial. Barriers.

## PERCEIVED ENVIRONMENTAL BARRIERS TO PHYSICAL ACTIVITY AMONG PHYSICALLY ACTIVE AND INACTIVE ADOLESCENTS

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**Introduction:** Most adolescents are not engaging in recommended levels of physical activity (PA) to benefit their health and a steep

decrease in PA occurs during adolescence. A better understanding of the environmental influences on youth PA is needed.

**Objectives:** To examine the perceptions of physically active and inactive adolescents about environmental barriers at the neighborhood level.

**Methods:** 460 adolescents from the 9<sup>th</sup> grade (236 boys; 14.7 ± 1.0 years) and 319 adolescents from the 12<sup>th</sup> (168 boys; 17.7 ± 0.9 years) answered to a questionnaire about PA (formal, informal, school sport) and neighborhood barriers to PA. Qui-square tests were used to analyze if the classification of PA (active: practice daily PA vs inactive: do not practice daily PA) was independent of the neighborhood barriers to PA, by taking into account school grade.

**Results:** The majority of adolescents from the 9<sup>th</sup> (69.3%) and 12<sup>th</sup> grade (74.9%) had a physically inactive lifestyle. More 9<sup>th</sup> grade inactive adolescents rated significantly ( $p < 0.005$ ) the barriers "no choice of activities" (24.7% vs 16.3%), "no other children there" (28.8% vs 18.1%) and "it is not safe because of crime" (29.3% vs 19.3) when compared to their active peers. For the 12<sup>th</sup> grade active adolescents, a higher proportion ( $p < 0.005$ ) mentioned to have been "a victim of crime in their neighborhood" (18.8%). Regardless of age and lifestyle, more than 1/3 of adolescents agreed that there were "no equipment" in their neighborhood.

**Conclusions:** Inactive and younger adolescents perceived more neighborhood barriers to PA. Providing a higher choice of PA activities and equipment, having other adolescents and friends around, and assure safety might help to prevent the decline and improve adolescents PA levels.

**Keywords:** Neighborhood. Physical activity. Correlates. Youth.

## LEISURE-TIME ACTIVITIES REPRESENTATIONS CLUSTERS AND PHYSICAL ACTIVITY LEVELS OF ADOLESCENTS

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**Introduction:** To improve adolescent lifestyles and health, an understanding of leisure-time representations and activity patterns is needed to provide information for targeting interventions.

**Objectives:** To identify leisure-time activities (LTA) representations clusters and analyse their physical activity (PA) levels.

**Methods:** A total of 387 adolescents (217 girls; 17,1 ± 1 years) answered to a questionnaire about informal and formal PA and the importance attributed to LTA. Using factor analysis and cluster analysis, five different groups of valuing LTA were formulated. Kruskal-Wallis was used to compare PA among groups.

**Results:** Cluster 1 (no sociable; 8.4% of all students) was characterized by valuing school and home activities but not social relationships. Cluster 2 (eclectics; 36.6%) attributed a high importance to all components of LTA. Cluster 3 (artists; 23.0%) valued music and recreation activities, but attributed low importance to other LTA. Cluster 4 (sporty; 16.4%) considered that sport and social relationships were important but not music. Cluster 5 (non sporty; 15.6%) valued music, sedentary screen and school activities, and attributed low importance to sport. All groups present low levels of PA. No differences were found between clusters regarding informal PA. Comparing to other groups, the "non sporty" presented significant lower levels of formal PA ( $M = 0.4$  Sessions/Week). The "sporty" adolescents had higher levels of formal PA ( $M = 2.4$  S/W) differing

significantly from other clusters, but not from the “no sociable” ( $M = 1.5$  S/W).

**Conclusions:** Complex clusters were identified based on adolescents representations of LTA. The understanding of what adolescents value and do can be crucial to promote PA during leisure-time, but other PA correlates need to be considered.

**Keywords:** Cluster analysis. Leisure activities. Physical activity. Youth.

### CHILDREN AND PARENTS - RELATIONSHIP BETWEEN CHILDREN ACTIVITY AND THE PERCEPTION OF THEIR PARENTS' ACTIVITY

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**Introduction:** Identifying psychological influences related with children's physical activity (PA) is important to understand individual differences in PA participation. PA is influenced by many factors and at a social level the perception of the parent's PA levels is fundamental during childhood.

**Objectives:** This study sought to examine the relationship of children's PA participation and the perception they have of their parents' participation in PA.

**Methods:** Participants were 415 (251 boys, 164 girls) aged 10-12 years ( $10.6 \pm 0.7$ ) from 5 Lisbon's schools randomly selected. Data was collected using a questionnaire used on international research project on children's lifestyles. A two-way ANOVA was used to determine main effects and interactions effects of children's perceptions of their parents' PA participation on children PA participation.

**Results:** On average boys spent  $4.2 \pm 2.8$  hours/week in PA and girls  $3.1 \pm 2.3$  hours/week. Boys and girls with both active parents were more involved with PA ( $4.21 \pm 3.1$ ) than those whose parents were inactive ( $3.4 \pm 2.1$ ). No significant interaction for children's perception of their father and mother PA participation (boys,  $p = 0.92$ ; girls,  $p = 0.95$ ). For girls, non significant differences were observed neither for the perception regarding fathers' ( $p = 0.18$ ) and mothers' ( $p = 0.24$ ) PA participation. However, a significant difference was found between boys who perceived that fathers were active and those who said their father were inactive ( $F(1,239) = 4.96$ ,  $p = 0.03$ ).

**Conclusions:** Children's participation in PA is not significantly related to their perception of parental involvement, with the exception of boys who perceived their fathers as actives. However, despite not having found significant differences, we could observe a tendency that points to a relation between the perceptions that parents are active with the amount of PA practiced by children.

**Keywords:** Sport. Physical activity. Family.

### WELL-BEING AND PHYSICAL ACTIVITY IN HEALTHY YOUNG ADULTS

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**Introduction:** Recent studies show a positive relationship between physical activity and well-being, although mediated by other variables. The most negative self-reported well-being is in the age group of 18-25 years.

**Objectives:** To characterize, contrast and compare physical activity levels and well-being of Portuguese young adults from the Centre region, exploring the relevance of other variables.

**Methods:** Participants were 125 young adults of both genders, between 18-25 years. To measure well-being, we used SWLS (life satisfaction) and PANAS (negative and positive affect). The IPAQ assessed physical activity and a characterization questionnaire evaluated satisfaction with the image and lifestyle.

**Results:** Physical activity correlated more strongly with SWLS ( $r = 0.234$ ,  $p < 0.05$ ), lifestyle ( $r = 0.185$ ,  $p < 0.05$ ) and gender ( $r = 0.129$ ,  $p < 0.05$ ). SWLS was positively associated with satisfaction with the image ( $r = 0.524$ ,  $p < 0.01$ ), lifestyle ( $r = 0.214$ ,  $p < 0.05$ ) and positive affect ( $r = 0.544$ ,  $p < 0.05$ ) and negatively with age ( $r = -0.290$ ,  $p < 0.01$ ). Analysis by gender showed positive associations in women between physical activity and lifestyle ( $r = 0.429$ ,  $p < 0.01$ ) and SWLS with satisfaction with the image ( $r = 0.636$ ,  $p < 0.01$ ), lifestyle ( $r = 0.422$ ,  $r < 0.05$ ) and positive affect ( $r = 0.685$ ,  $p < 0.05$ ). In men, only physical activity was associated with positive affect.

**Conclusions:** The results support other studies regarding the relationship between physical activity and well-being as well as the mediating role of variables, such as lifestyle, although more evident in women. The strategies to implement in order to change young adult's behavior, cannot fail to take into account the differential effect of these factors. The multidisciplinary must be the key for any community intervention.

**Keywords:** Physical activity. well-being. young adults.

### OPTIMIZING THE PERFORMANCE OF ELITE ATHLETES: EFFECTIVENESS OF A MINDFULNESS PROGRAMS IN SPORTS

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**Introduction:** The difference between success and failure has become increasingly smaller in sport. A “third wave” approach in sport psychology has been recently used for the first time to increase the performance level of elite athletes with very well defined programs. Mindfulness based interventions (MBI) have demonstrated effectiveness in reducing negative psychological consequences, improving psychological coping, and reducing re-injury anxiety.

**Objectives:** The purpose of this systematic review was to summarize the empirical findings of effectiveness of the implementation of mindfulness based programs to enhance performance on elite-athletes.

**Methods:** Literature review was conducted based on scientific publications and was retrieved from the PUBMED, MEDLINE, PsycINFO, Cochrane, ISI-Web of Science databases searched from 1985 to 2015. The main references cited in reviews were also included to ensure that no relevant studies were excluded. The main search terms were mindfulness, sport performance, stress reduction, flow state, self-compassion, and Acceptance Commitment Therapy (ACT), in different combinations as needed. All articles were coded for their design, type of control, study population, and outcome measures.

**Results:** The literature review allowed documenting advantages in participating in the Mindfulness based programs with increase of attributes related to mindfulness, higher levels of self-compassion, acceptance flow state, sport performance, a lower overall index of psychopathological symptoms and physiological response to stress, less suppression of thoughts.

**Conclusions:** Study findings yielded could suggest that mindful-based interventions can be helpful to enhance performance in sport.

**Keywords:** Mindfulness (MBI). Elite athletes. Sport context.

### MOTHERS CAN PREDICT FAMILY SUPPORT FOR CHILDREN'S PHYSICAL ACTIVITY

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**Introduction:** Family plays an important role on the encouragement for children's physical activity (PA). Studies have been looking at parental gender differences and particularly highlighted the mother's role.

**Objectives:** The aim was to analyse family risk factors, parental behaviours and gender differences that can predict parental support for children's PA.

**Methods:** The sample consisted of 696 Portuguese families (parents 947, children 696) from 4 elementary schools in Porto. Children's anthropometry and PA levels were measured, using a portable stadiometer (SECA 214), weighing scales (Tanita MC180 MA) and accelerometers ActiGraph GTX3. Parents self-reported their weight and PA levels. Family facilities, family behaviours and parental support were assessed by questionnaires. Linear Regressions were used.

**Results:** For parental PA support, showed that "Discouraging TV viewing" ( $\beta = 0.10$ ,  $p \leq 0.00$ ), "perception of child weight" ( $\beta = 0.15$ ,  $p \leq 0.12$ ) and "concern for child weight" ( $\beta = 0.06$ ,  $p \leq 0.05$ ) were positively associated with parental support ( $R^2 = 0.09$ ,  $p \leq 0.00$ ). Model adjusted for mothers' covariates (PA levels, risk factors, Body Mass Index and Socio Economic Status (SES)) all of these variables became positively associated with parental support ( $R^2 = 0.14$ ,  $p \leq 0.00$ ). Active mothers were more supportive for children's PA than inactive mothers ( $\beta = 0.13$ ,  $p \leq 0.02$ ). Mothers with more risk factors were also more supportive than mothers without risk ( $\beta = 0.08$ ,  $p \leq 0.03$ ), as well as those with lower SES ( $\beta = -0.11$ ,  $p \leq 0.01$ ). The model was tested with Fathers' covariates but none of the variables were statistically significant.

**Conclusions:** Mother's characteristics are more important predictors of parental support for children's PA, whereas fathers' characteristics are less influential.

**Keywords:** Parental support. Physical activity. Mother.

### COSTS OF A COMMUNITY-BASED EXERCISE PROGRAM FOR PATIENTS WITH TYPE 2 DIABETES: CASE STUDY OF DIABETES EM MOVIMENTO®

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**Introduction:** Type 2 diabetes (T2D) is one of the most challenging public health problems of our society. Regular exercise practice is a cornerstone of T2D treatment and control in addition to healthy nutrition and pharmacological strategies, with benefits in glycemic control, cardiovascular risk and quality of life of these patients. Economic analysis of exercise interventions are critical to the development of policies and sustainable strategies in the area of health promotion.

**Objectives:** This study aimed to assess the costs of a community-based exercise program for patients with T2D.

**Methods:** We analysed and quantified the costs of Diabetes em Movimento®, a community-based exercise program designed for patients with T2D developed in Portugal (ISRCTN09240628). This program is held three sessions per week (90 min per session) during nine months, in groups of 30 participants. A total of 60 participants were considered for this work. We calculated only the direct costs of the promoting institution: 324 hours of renting a local sports hall and hiring an exercise professional and a nurse in public functions conditions; sports equipment (dumbbells, gymnastics balls, etc.); vital signs monitoring equipment (blood pressure, heart rate and glycemia); logistical (disposable and non-disposable) equipment (chairs, sound system, stationery, storage boxes, etc.); and technical training. Calculations dated may 2016.

**Results:** The program (60 participants; 9 months) presented a total cost of 9,938.70€ (1,104.30€/month; 165.64€/patient; 46.01€/session; and 18.40€/patient/month).

**Conclusions:** Exercise intervention programs in community settings seems to have an affordable cost comparing to other treatment strategies for type 2 diabetes, like pharmacological interventions.

**Keywords:** Economic analysis. Physical activity programs.

### ASSOCIATION BETWEEN NUTRITION, PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOURS IN PORTUGUESE CHILDREN

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**Introduction:** The causes of obesity are multifactorial. Nevertheless, always assume an imbalance between the energy consumed and the energy expended. Therefore, the children physical activity (PA), the sedentary behaviours (SB), diet and eating behaviours seem to be important factors in weight increase. This study analysed the association between nutrition, PA and SB of normal weight, overweight and obese children.

**Methods:** A total of 246 children (7-11 ys) were recruited from an urban school. Eating behaviour was assessed through the Child Eating Behaviour Questionnaire and food intake by the Semi-Quantitative Food Frequency Questionnaire. PA and SB were measured by accelerometers (5 days) and by Adolescent Sedentary Activity Questionnaire. Normal weight, overweight and obesity status were determined according BMI z-score age and sex-specific cut-offs.

**Results:** The obese children had lower vigorous PA. Regarding SB, no differences were found between normal weight, overweight and obese children. Furthermore, significant differences were found in eating behaviour between obese children, especially when compared to normal weight. The type of food consumed was similar among all children. Moreover, significant associations were found between the consumption of higher energy density foods, vigorous PA and screen time.

**Conclusions:** Our findings indicate similarities in SB and diet of children regardless of their BMI, highlighting the importance of increasing PA intensity. A possible sub-report in overweight and obese children food assessment appears to be a confounding factor of the results, suggesting the need of developing more objective methods for this variable assessment. The eating behaviour seems to be a possible key factor in childhood obesity prevention.

**Keywords:** Children. Eating behaviour. Diet. Physical activity. Sedentary behaviour.



WITHDRAWN ABSTRACT

### THE INFLUENCE OF MOTOR IMAGERY IN BALANCE OF INDIVIDUALS WITH DISABILITIES

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**Introduction:** Imagery is a cognitive process that can play an important role on the planning and execution of different movements or actions.

**Objectives:** The main purpose of this study is to ascertain whether the application of Motor Imagery together with normal practice improves balance skills in disabled individuals.

**Methods:** This is a quasi-experimental study with a non-probability convenience sample of 39 subjects of both genders with disabilities, with a mean age of 48 (SD = 12). Subjects were randomly divided in two groups: a control group (N = 19) and an experimental one (N = 20). The study procedures were applied on nine different tasks of the Psychomotor Battery of balance skills (BPM) (Fonseca, 2010). This instrument was applied in two stages, at the beginning of the study (pretest) and at the end of the 4 weeks (posttest). Both groups performed the tasks twice a week for a month. Motor Imagery sessions

were added on in the experimental group. Participants on the experimental group were asked to mentally imagine themselves recreating tasks they had performed earlier on the initial assessment. For the analysis of the results, descriptive and inferential statistics were used. The Shapiro-Wilk test was applied to the normality distribution of data and Mann-Whitney to independent samples.

**Results:** The results showed the subjects improve in the mean of all balance tasks but the statistical difference in the 9 tasks performed was not significant ( $p > 0.05$ ) between the groups.

**Conclusions:** These results, shows that motor imagery when used together with physical repetition of the movement imagined can improve balance skills in disabled individuals, but these results don't show scientific evidence that this improve was result of the application of Motor Imagery sessions.

**Keywords:** Imagery. Motor imagery. Balance skills. Disable.

### (POSTER) THE INFLUENCE OF PHYSICAL EXERCISE IN THE SELF-CONCEPT OF CHILDREN WITH CEREBRAL PALSY

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**Introduction:** Cerebral palsy is a syndrome that results from a brain injury that affects the brain, which is still in development, leading to changes in the movement and posture (Alves, Cadete & Figueiredo, 2004). Physical activity helps people with disabilities to become active contributing to social integration and enhancing their strengths (Ferreira, 1993). Aidar, Carneiro, Silva Reis, Garrido & Vieira (2006) found that water activities contribute to motor gains and social functions.

**Objectives:** To evaluate the influence of a motor intervention program, in the aquatic environment, in the self-concept of children with cerebral palsy.

**Methods:** The sample consisted of 2 children with cerebral palsy - spastic diplegia, one girl with nine years of age and another boy with 11 years of age. The two children were subjected to a motor intervention program in the aquatic environment. The intervention took place over eight weeks, with two weekly sessions of 45 minutes each. An evaluation was performed before and after the intervention program through the Self-Perception Profile for Children Susan Harter (1986).

**Results:** It was found that the girl maintained the same score in the scholastic competence, social acceptance and behavioral aspects, and the discrepancy between the actual scores and what the girl would like it to be decreased. The scores on the athletic ability and physical increased slightly. The boy dropped the discrepancy between the different areas. The athletic competence was the domain that showed the most progress.

**Conclusions:** The results showed that a motor intervention program, in the aquatic environment, allowed for a greater stimulation of the child, causing him/her to achieve better performance levels, thus improving himself/herself.

**Keywords:** Physical activity. Self-concept and cerebral palsy.

### EFFECTS OF A MOTOR INTERVENTION PROGRAM FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS

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**Introduction:** Autism Spectrum Disorders (ASD) consist of neuro-developmental disorders leading to deficits in communication and

socialization, repetitive behaviors and restricted interests (Worley & Matson, 2012). Physical exercise practiced regularly becomes a positive factor for health and is associated with psychological well-being (Hassmén, Koivula & Uutela, 2000). It can also be an excellent way to improve motor limitations presented by individuals with ASD.

**Objectives:** To evaluate the effect of a motor intervention program, based on trampolines exercises in children with ASD.

**Methods:** 25 children with ASD and with an average age of 6.92 participated in this study. Two groups were created: the experimental group (n = 14) and control group (n = 11). The first was subject to a motor intervention program, 45 minutes per week for 20 weeks. The two study groups were evaluated in three stages through the Autism Treatment Evaluation Checklist (ATEC; Rimland & Edelson, 1999). This instrument is a form consisting of four subtests and aims to evaluate a treatment, having been completed by the parent.

**Results:** The results showed significant differences between the two groups, experimental and control, in all subtests: communication/language (0.002); sociability (0.002); sensory/cognitive perception (0.000); and health (0.027). The total score of the test also showed significant differences between the two groups (0.000).

**Conclusions:** With this study it possible to concluded that a motor intervention program proved to be a major factor in the group of children with ASD, particularly with regards to communication, sociability, sensory/cognitive perception and health.

**Keywords:** Physical activity. Health and autism.

### ACTIVE LIFESTYLE: COMPARATIVE STUDY OF PHYSICAL ACTIVITY LEVEL AMONG HIGHER EDUCATION STUDENTS

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**Introduction:** Physical activity is an important issue for epidemiology related to prevention of chronic diseases and health.

**Objectives:** The aim of our study was to analyze the level of physical activity among higher education students that lived in rural and urban environment until adult age.

**Methods:** Participated in the study 132 students of both sexes (47 female, 85 male). The average age of the sample was 21.81 years (SD = 3.78) and individuals were divided into two groups (Group 1- those who lived in rural areas; Group 2- lived in an urban environment). To characterize the sample an adaptation off the questionnaire Telama et al. (1997) was applied. The Physical Activity Scale (Aadahl & Jorgensen, 2003) Portuguese version (Santos & Simões, 2009) was applied to evaluate the physical activity level. For the study analysis descriptive and inferential statistics were used. The Kolmogorov-Smirnov test was applied to the normality distribution of total amount of physical activity, because the sample is greater than 30, but for items we used non-parametric tests. So we used parametric tests (t Student for independent samples) for the total scale and non-parametric test (U Mann-Whitney and Wilcoxon) for items.

**Results:** The results show that although there are average differences, urban group better, there are no significant differences between groups. In the items also there are no significant differences, with urban group higher average in items A, B, G, H.

**Conclusions:** These results, show that the type of environment lived until adult age doesn't seem to reveal significant differences in an active lifestyle.

**Keywords:** Lifestyles. Rural. Urban. Physical activity.

### THE INFLUENCE OF PHYSICAL EXERCISE ON FUNCTIONAL FITNESS IN INSTITUTIONALIZED ELDERLY

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**Introduction:** In the last decades, the relationship between physical activity and health in elderly has been well documented. The regular practice of physical activity, from the development programs of physical exercises adapted to the capacity of elderly contribute to dignified ageing and quality of life.

**Objectives:** The aim of this study is to verify if a physical exercise program improve physical fitness between the practice group and the non-practice group on institutionalized elderly's.

**Methods:** This is a quasi-experimental study with a non probability convenience sample of twenty five institutionalized elderly (group of practice = seventeen; group non-practice = eight). The evaluation protocol was 7 tasks of the Rikli & Jones (2013) Senior Fitness Test that were applied in the beginning of the study and after 6 months. It was applied a physical exercise program two times a week with the duration of forty five minutes, with an aerobic and joint mobility exercises. For the analysis of the results descriptive and inferential statistics were used. The Shapiro-Wilk test was applied to the normality distribution of data and Wilcoxon to paired samples.

**Results:** We found that the practice group improve in all tasks evaluated with statistical differences in three of them ( $p \leq 0.05$ ) - Chair Sit & Reach, Weight and Two Minutes Step. In the non-practice group none statistically significant differences were found in all tasks and they just improved in one of them - Weight.

**Conclusions:** The results showed that the regular physical activity enhance the physical fitness in institutionalized elderly people contributing for the dignified ageing and quality of life.

**Keywords:** Elderly. Physical exercise. Physical fitness.

### EFFECTS OF EXERCISE ON MOTOR MEMORY CONSOLIDATION IN ELDERLY PEOPLE ON NON-DOMINANT HAND

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**Introduction:** It appears that certain cognitive abilities decrease with age, but elderly people demonstrates capacity retention of new acquired motor memories. However, few studies have explored the chronic effects of exercise on motor memory consolidation in elderly people on non-dominant hand.

**Objectives:** The purpose of this research was to investigate if a six months period of physical exercise could improve motor memory consolidation in elderly people in non-dominant hand in Finger Tapping Sequence test.

**Methods:** Thirty four subjects of both genders, with a mean age of sixty-eight years old they were selected non-randomly. Subjects were divided in a control group (n = 16) and experimental group (n = 18). The exercise program consisted of two sessions per week, with a duration of sixty minutes. The sessions were conducted with the objective of training of strength, endurance, flexibility, coordination and balance. Before the intervention of a physical exercise, subjects performed a Finger Tapping Sequence to measure baseline performance. After the intervention, the evaluation of the impact of exercise on motor memory consolidation was held in three stages: Training; 1 hour after training and 24 hours after training. For the analysis of the results, the Shapiro-Wilk test was applied to the normality distribution of data and One-way ANOVA test.

**Results:** When compared with the control group, results showed a better performance on motor memory consolidation 1 hour and 24 hours after training in the experimental group. However, these differences were not significant ( $p > 0.05$ ).

**Conclusions:** Apparently the regular physical exercise does not significantly improve motor memory consolidation capacity in non-dominant hand in elderly people.

**Keywords:** Exercise. Motor memory. Learning. Aging.

### PHYSICAL EXERCISE AND MOTOR MEMORY CONSOLIDATION IN PEDAL DEXTERITY SKILLS ON NON-DOMINANT MEMBER IN ELDERLY

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**Introduction:** The acquisition of new motor skills is one aspect that is present from birth to the aging process. In fact, the differences related to age and learning capacity of motor skills vary according to the nature of motor task. There are few studies related to motor memory consolidation with pedal dexterity skills in the elderly. **Objectives:** Thus, the aim of this study was to investigate if a six months' period of physical exercise could improve motor memory consolidation in elderly people in pedal dexterity skills in your non-dominant member.

**Methods:** Forty subjects of both genders, with a mean age of sixty-eight years old they were selected non-randomly. Subjects were divided in a control group and experimental group. The sessions were conducted with the objective of training of strength, endurance, flexibility, coordination and balance, and frequency of two sessions per week, with a duration of sixty minutes. Before the intervention of a physical exercise, subjects performed a Tapping Pedal Test to measure baseline performance. After the intervention, the evaluation of the impact of exercise on motor memory consolidation was held in three stages: Training; 1 hour after training and 24 hours after training. For the analysis of the results, the Shapiro-Wilk test was applied to the normality distribution of data and One-way ANOVA test.

**Results:** When compared with the control group, results showed a better performance on motor memory consolidation 1 hour and 24 hours after training in the experimental group. However, these differences were not significant ( $p > 0.05$ ).

**Conclusions:** It seems therefore that the regular physical exercise does not significantly improve motor memory consolidation capacity in pedal dexterity skills in non-dominant member of elderly people.

**Keywords:** Exercise. Aging. Learning. Memory.

### ANTIHYPERTENSIVE THERAPY ADHERENCE, TREATMENT AND HEALTHY LIFESTYLE OF HYPERTENSIVE PATIENTS FROM NORTHERN PORTUGAL

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**Introduction:** Hypertension is among the no communicable chronic diseases most prevalent in the world population. The antihypertensive therapy adherence is important to control hypertension.

**Objectives:** To characterize the pharmacological treatment and c of hypertensive patients from northern Portugal, estimate the prevalence of antihypertensive therapy adherence and related factors.

**Methods:** This correlational and cross-sectional study was based on a questionnaire, with MAT, FFQ for sodium and IPAQ scales to access the therapy adherence, eating habits and physical activity, respectively. It was applied to 385 hypertensive patients from northern Portugal. It was used descriptive statistics and Chi-Square test, with a significance level of 5%.

**Results:** The sample consisted mostly of females (70.8%), between 19 and 94 years old, with an average age of 62 years. Angiotensin II receptor antagonist (ARA) are the pharmacological group more used. Regarding the consumption of sodium the most consumed foods were cod, sausages, patties, canned and ham. Most respondents (50.9%) practicing vigorous and/or moderate physical activity. The prevalence of therapy adherence was 93.2%, and more adherent are people aged over 50 years ( $p = 0.003$ ), in active working or retired ( $p < 0.001$ ).

**Conclusions:** The participants of this study present unhealthy eating habits, but overall are physically active. They shows a high prevalence of antihypertensive therapy adherence, among active working or retired people.

**Keywords:** Antihypertensive therapy adherence. Hypertension.

## 14. HEALTH AND THE MEDIA

### HIV AND AIDS INFECTION PREVENTION CAMPAIGNS: A EDUCATIONAL RESOURCE IN SEXUALITY

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**Introduction:** The doctoral investigation "Sexuality and Gender in Media Speeches" has validated a possible path in sexual education, integrating analysis of HIV/AIDS infection prevention campaigns in teachers' formation. In this area, aiming the "end of AIDS' epidemic" (until 2030), there are about 36.7 million individuals world round infected, and nearly 17.1 million that do not know their health state (UNAIDS, 2016). Prevention campaigns are key pieces in this combat and frequently carry sexuality and gender stereotypes: it is important to know how to read them in a critical sense. Goals: 1) Analyze HIV/AIDS infection prevention campaigns produced, in the 2000's, by GO and NGO in the CPLP countries; 2) Build and validate, in teachers' formation, didactic material that integrates critical approaches of gender and sexuality conceptions, identified in the HIV/AIDS infection prevention campaigns, to be used in classroom.

**Methods:** Documental analysis, content analysis and critical speech analysis.

**Results:** The 81 campaign spots' preferential targets were young heterosexuals, aiming mostly to promote condom use; only 4 showed an intention to break gender and sexuality stereotype visions; none has truly a 'changing-goal'; in 77, evidences of inequality were dominant (stereotypes, unrevealing messages about HIV/AIDS, few values); 3 were considered sexist.

**Conclusions:** We question the omission of some realities, such as disabled persons, old age, and female homoaffectivity; we question also the poor investment in female empowerment, in clarity of messages about HIV/AIDS, and in values enlargement.

**Keywords:** HIV/AIDS infection. Prevention campaigns. Sexuality. Gender.

### ADVERSE EVENTS WITH MEDICATION: THE CULPABILITY PRINTED BY MEDIA

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**Introduction:** The media reports influence the formulation of concepts and opinions in society and in relation to the health sector and nursing, how adverse events with the drug administration are reported does not always contribute to the understanding of the complexity the phenomenon.

**Objectives:** To examine how the news media with medication adverse events involving nursing professionals in Brazil and Portugal.

**Methods:** Documentary, qualitative study conducted to reports in major newspapers in Brazil and Portugal between 2012 and 2016. Data analysis was conducted by the dialectic hermeneutics, following in the footsteps of Ricoeur (2016) with theoretical foundation of Theory Communicative Action Habermas (2012); and the organization and coding of data was performed with the help of software Atlas.ti (Qualitative Research and Solutions).

**Results:** Of 116 news errors related to nursing work, 44 deal with errors in medication administration, it was found the similarity of packaging and labels that led to the error. These drugs are known in the literature by Look-Alike, Sound-alike drugs (LASA). One study found that the similarities labeling has strong potential for medication errors (Lopes et al., 2012). However, the news linked medication errors with criminal offense, to produce appealing nature of reports indicating that they are gross errors should be punished as a crime of culpable type, that is, without the intent to kill.

**Conclusions:** The media portrays superficial information, persuading the reader to believe that nursing professionals need to be penalized for committing crimes, and patient safety involves many other error mechanisms that need scrutiny.

**Keywords:** Medication errors. Patient safety. News.

### THE MEDIATIZATION OF MISTREATMENTS: META-ANALYSIS OF 100 NEWS

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**Introduction:** Currently, the post of cases about abuse in childhood and youth by the media is essential for influence and social debate on this problematic by encouraging the mobilization and awareness of society.

**Objectives:** This research aims to essentially recognize common variables in media coverage of news about this subject.

**Methods:** The methodology used was based on a meta-analysis/detailed and careful review of 100 news, Portuguese newspapers (weekly, daily) in 2003-2015 period.

**Results:** It follows that the selection of news is by no means random, there is a set of common denominators that are repeated along the headlines. With regard to the victims prevails female and aged between 6 and 9 years old, as the aggressor, male dominated, the dominant age group is between 20 and 35 years old and are mostly officials affections to an Institution. The typology of Bad physical tract is the most expressive. Interestingly the time limit between 2013 and 2014, a comparative analysis with the results of the Annual Reports of the CPCJ Activity Assessment 2013 and 2014, the information does not match.

**Conclusions:** The news doesn't report the reality. News exaggerates to sell and to attract the reader's attention by the mediatization of suffer and horror.

**Keywords:** Mistreatment. Children. Young. Risk factors. News.

## 15. HEALTH EDUCATION AND TEACHER TRAINING

### ABSTINENCE AND ALCOHOL CONSUMPTION AMONG STUDENTS: THE INFLUENCE OF PERSONAL, FAMILY AND SOCIO-CULTURAL SPHERES

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**Introduction:** Among young people, regular or alcohol abuse seems to ally with individual factors, which congregate to other generators behaviors health risk, in social environment, including family and school. The consumption of alcoholic beverages in the younger age groups, according to the World Development Report goes beyond 60%. In the Portuguese case, the Alentejo is the region that recorded higher consumption among schoolchildren.

**Objectives:** This study aims to know the personal influences of family, of belonging to the group and the school environment, on the withdrawal and consumption habits among young people.

**Methods:** A qualitative nature of research, using comprehensive semi-structured interviews. The study was developed in a school district of Evora, Portugal. The sample consists of ten students from the 8th school grade, five non-consumers-five consumers aged between 13 and 15 years old.

**Results:** The trial takes place between 12 and 14 years old as a result of curiosity, explicit or tacit motivation, "give style", the environment, entertainment and observing behavior. Among the effects of intake indicated as motivators consumption highlight the joy of reaching states and willingness. Family members tend to encourage moderate drinking on festive occasions. family models exaggerated consumption repudiate ingestion. The elements of the group of belonging tend to motivate explicitly, the intake among consumers students. The school promotes initiatives on the theme, punctually.

**Conclusions:** The consumption of alcohol among young people suffers the personal, family and belonging group influences. The initiatives in school tend to have no effect.

**Keywords:** Alcohol. Youth. Family. Group of belonging. School.

## KNOWLEDGE AND PRACTICES ON SUN EXPOSURE OF HIGHER EDUCATION STUDENTS ATTENDING COURSES IN EDUCATION AREA

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**Introduction:** In Portugal, the incidence of cutaneous cancer is increasing. There has been strong evidence between behaviors in children and young people regarding the exposition to sunlight and the burden of skin cancer in adults. The level of knowledge is a determinant for good health behaviors.

**Objectives:** To know the behaviors on exposure to sunlight and photoprotection as well as the knowledge about the benefits and risks of sun exposition in higher education students attending courses in Education area in the Beira Interior Norte subregion, in Centro region of Portugal.

**Methods:** Forty-seven students attending higher courses in Education at the School of Education, Communication and Sport, in Polytechnic of Guarda, were enrolled in the study. They were compared with forty-seven age- and gender-matched controls (students of other courses at the same school). Univariate and multivariate analyses were used to compare knowledge and behaviors between the groups.

**Results:** There is no significant relationship between the knowledge about the benefits of sun exposure and sun protection between the groups. Compared to the controls, the cases do not have a deeper knowledge on this topic. The cases seem to have no better behaviors regarding photoprotection and they have not been more informed on good practices of sun exposure than the controls ( $p < 0.05$ ).

**Conclusions:** The results of this study highlight the need for strategies to improve the knowledge of the benefits and the risks of sun exposition in these courses of education area. Perhaps this could improve the education of these young people as well as the children with whom they could deal, improving, thereby, behaviors on this matter.

**Keywords:** Health education. Sunlight. Health behavior. Skin.

## NURSING CLINICAL TEACHING SUPERVISION: PORTUGUESE STUDENTS' PERCEPTION

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**Introduction:** Clinical training, in the nursing degree, represents half of the initial graduation time, constitutes an important learning period, where supervision plays a crucial role in the nurses' social structuring process.

**Objectives:** To know the perception that Portuguese nursing students have about supervision in clinical education.

**Methods:** Integrative review, led by the PIC[O]D method, being the search engines Google Scholar, the Virtual Health Library and Scielo Portugal. After application of the Relevance Test, a corpus of 11 studies was obtained.

**Results:** All studies were considered of quality, having obtained a final classification higher than 75%. Students highly value the clinical instruction context and a positive affective and relational atmosphere, for which it is essential that the supervisor leaves the positions of evaluator, authoritarian, intimidating and even verbal and non-verbal aggressiveness, in order to establish with students an informal relationship and proximity.

**Conclusions:** The professional knowledge of the supervisors must match the professional act in a contextualized reality, allowing students to learn how to critically analyze, consolidating the knowl-

edge acquired previously and becoming aware of the different roles and skills needed to develop not only in a cognitive and technical perspective but also in an affective and relational perspective.

**Keywords:** Nursing students. Clinical training. Supervision.

## THE PROCESS OF TEACHING COMPETENCIES FOR HEALTH PROMOTION

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This study aimed to analyze the pedagogies and teaching strategies used to approach the skills to promote health in the academic training of nurses. This is a case study with a qualitative approach anchored in the theoretical framework of the Marxist dialectic. They were conducted focus groups with 15 teachers of a higher education institution in the State of Minas Gerais, Brazil. The findings reveal that the proposed curriculum has differentiated teaching strategies that can function as a device for the development of skills to promote health through a multidimensional transformative education. In these strategies the student has the opportunity to learn to "doing", more contact with the health context of the population and the reality of working life. The Integration Practice Teaching-Service-Community (PIESC), which appears as a device of the theory-practice joint may lose its primary function if there is no proper guidance during practical activities. Do not just change the format of the teaching plan and teaching mechanisms, it is imperative to change the essence of the process of teaching and learning, approaching the real integration with professional practice critical, dynamic and socially contextualized.

**Keywords:** Health promotion. Health manpower. Competency base.

## BELIEFS OF NURSING STUDENTS ABOUT THE MENTAL ILLNESS AND MENTAL PATIENTS

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**Introduction:** Some of the negative stereotypes refer to beliefs deeply rooted in society that people with mental illness are dangerous, incompetent and responsible for their illness.

**Objectives:** To examine the beliefs of nursing students about mental illness and mental patients.

**Methods:** Cross-sectional, correlational descriptive, quantitative study, in a public school in Portugal. The sample was intentionally non-probabilistic and composed of 406 students. Data collection took place from September 2014 to April 2015 through a questionnaire with demographic questions and the Beliefs about mental illness and mental patients Inventory (Loureiro, 2008) with 45 items, organized into 6 dimensions (incurability, illness recognition, illness as a cause of stigma and discrimination, danger, individual responsibility, illness as a medical condition), filled voluntarily.

**Results:** Sample: 86.4% female, mean age 22.4 years ( $S = 4$  years), 59% didn't have clinical training in psychiatry, 4.8% have worked in health care, 45.6% did not deal with psychiatric patients. Results show that there seems to be no statistically significant difference between beliefs and gender, age or having previously worked in health institutions. Statistically significant differences have been found between already having contacted/having had experience with a psychiatric patient and the illness recognition subscale ( $p = 0.007$ ). There is a weak positive correlation between: the illness

as a cause of stigma and discrimination subscale and the fact that students have already worked in health institutions ( $R = 0.160$ ,  $p < 0.05$ ).

**Conclusions:** The results of our study are consistent with Markström et al, 2009, which reinforce that educational strategies have better results when combined with contact with people with mental illness.

**Keywords:** Believes. Students. Nursing. Social stigma. Teaching.

## ATTITUDES OF NURSING STUDENTS TOWARDS TO MENTAL ILLNESS AND MENTAL PATIENTS

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**Introduction:** The contact with people with mental illness influences students' attitudes as health professionals in the future, positively changing their opinion.

**Objectives:** To analyze the attitudes of nursing students towards mental illness.

**Methods:** Cross-sectional, correlational descriptive, quantitative study, held in a public school in Portugal. The sample was intentionally non-probabilistic and composed of 406 students. Data collection took place from September 2014 to April 2015, using a questionnaire with demographic questions and the views on mental illness scale (Oliveira, 2005). This scale consists of 51 items organized into five attitudinal factors (authoritarianism, benevolence, mental hygiene ideology, social constraint, interpersonal etiology), and was filled voluntarily.

**Results:** Sample: 86.4% female, mean age 22.4 years ( $S = 4$  years), 59% didn't have clinical training in psychiatry, 4.8% have worked in health care, 45.6% did not deal with psychiatric patients. Higher averages in the different subscales were observed in 4th year students who have already had clinical training in psychiatry, compared with 1st year students, except for the mental hygiene ideology subscale, which has a higher average score in 1st year students. Contrary to what one would expect, 4th year students have similar attitudes and slightly higher scores in the different scales, reflecting a paternalistic and protective view against the mentally ill.

**Conclusions:** It is important to focus health education on students' opinions and attitudes as subjects of the construction process of a professional identity, in order to encourage attitudes that promote inclusion and the reduction of stigma, thus promoting patients' empowerment on the self-management of their health-disease process.

**Keywords:** Students. Nursing. Social stigma. Health knowledge. Attitudes. Practice.

## HEALTH EDUCATION & COMMUNICATION: UNIVERSITY TEACHERS' VS STUDENTS' OPINIONS

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**Introduction:** Communication skills are a key component of health education. Nevertheless, it is not unusual to find health education programs that do not specifically promote these skills.

**Objectives:** To compare the importance university teachers and students attribute to communication skills.

**Methods:** This is a quantitative descriptive study with a non-probability convenience sample of 251 university students and 79 univer-

sity teachers studying/working in Portugal. The evaluation protocol included a sociodemographic questionnaire and the Importance Scale of the QCC- Communication Skills Questionnaire (Meneses et al., 2009).

**Results:** Statistically significant differences were found between teachers and students in 6 of the QCC 26 items, i.e., in the importance attributed to begin a conversation ( $p = 0.03$ ), to maintain a conversation ( $p = 0.03$ ), to thank ( $p = 0.04$ ), to apologize ( $p = 0.004$ ), to reflect feelings ( $p = 0.000$ ), and to express support ( $p = 0.008$ ). Teachers mean scores were always lower (i.e., less importance attributed) than students scores.

**Conclusions:** The results suggest the need to make university teachers more aware of the key role communication skills have, namely in the context of health education.

**Keywords:** Communication skills. University students. Teachers.

## TUTORS NURSES' PERCEPTIONS ABOUT CLINICAL SUPERVISION SKILLS

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**Introduction:** The evolution of science and technology, changes within the health organizations, new and emerging philosophies of care require health professionals actively involved in the formation of their pairs, giving a great importance to clinical supervision process.

**Objectives:** Identify the perception of nurses expert tutors about the clinical supervisor in child health and pediatrics skills.

**Methods:** A qualitative, exploratory and phenomenological study, on a sample with ten mentor nurses, from pediatric services at Hospital Dr. Nélio Mendonça SESARAM. We used the semi-structured interview and recorded audio. We made content analysis to "corpus" of all interviews, defining sub-categories and indicators.

**Results:** Emerged the category skills of the clinical supervisor and its most referenced subcategories were the personal characteristics with 38% references unit and professional skills (25.7%). In child health and pediatrics also stood out relevant aspects like the personal and professional skills with 40.4% each. The main facilitator factor of supervision was the structured process (21.6%), and the difficult factor of supervision was the deficit of interpersonal relationships (21.7%). In overall there were more registration units related to the hindering aspects.

**Conclusions:** Aware of supervisors' perceptions in a such specific area as the area of child health and pediatrics, we believe that this study may contribute to improve the quality of the supervision process in nursing. The joint effort is required between the supervisor and supervised by improving processes mediated between institutions and actors, where proliferate the sharing of knowledge, experience and professional goals.

**Keywords:** Supervisor. Mentor. Clinical Supervisor. Nursing.

## POST GENOMIC ERA: THE NEED FOR GENETIC LITERACY

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More than ten years after Human Genome Project's conclusion we find several changes in life sciences, in our understanding of health

and disease, in the research methods, and in disciplinary structures. New gene discoveries came with the promise that these information would help to improve health and prevent disease: a era of genomic and personalized medicine. The Human Genome Project has allowed the development of many innovative platforms to study the information flow at molecular level. As consequence, new areas emerged such as genomics, transcriptomics, proteomics, metabolomics and epigenomics and there is a possibility of using "omics" knowledge and techniques to select new biomarkers (gene variants, epigenetic changes or expression patterns). Biomarkers can be used for disease diagnosis, prognosis, prediction of therapeutic responses applied in the field of cancer and chronic diseases and will be followed by requirement of validation and reproducibility studies to allow their application into clinical practice. Developments in genetics and genomics created a need for education of health professionals, authorities and general population. The majority of practicing professionals may not have been taught genomics during their academic degree. In this context, a gap in knowledge has been described across the board among health professionals, including medical undergraduates, general practitioners and nurses (non-genetics specialists). The EuroGentest project and European Society of Human Genetics Education Committee has defined a core competences in genetics used as a basis for health professional education. The need to follow a common minimum standard of competence in genetics and genomics for health professionals in Europe is real and we must be aware of that.

**Keywords:** Health education. Genetic literacy.

### THE PROFILE ATTENTION OF STUDENTS IN PHYSICAL EDUCATION CLASSES: DIFFERENCES BETWEEN THE DIFFERENT SPORTS

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Recent investigations state the importance of the analysis of the act of teaching act, and, mainly, of the study of the pupil's way of thinking, taking into account the factors that can hold his/her attention in class. Attention is considered a powerful mediating variable because its influence in the teaching-learning process is evident, as well as the mutual influence between the teacher and the students' behaviours and the results of the learning process. With this study, we intend to know the aspects that hold pupil's attention throughout the different moments of the Physical Education classes when teaching different sports' activities. Students aged between 12 to 16 years old from the 3<sup>rd</sup> Cycle of Portuguese Education system, attending the same school, will be asked to answer a questionnaire (ATEST\_EF) on different sports' activities. Previous studies show us that there are differences between the students' attention level throughout the different moments of a Physical Education class and the teaching of different sports' activities.

**Keywords:** Physical education. Attention. Class. Sports.

### ECOLOGICAL APPROACH TO DEVELOPMENT OF STUDENT COMPETENCIES IN CLINICAL TRAINING

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**Introduction:** The growing complexity of health care settings, as well as the own care, require that training in this area is also a

process thought a dynamic perspective of integration/implementation of knowledge in each context. In the light of ecological perspective of Bronfenbrenner and Morris (1998) the development of skills of the students in this context may be influenced by several factors related to the person, the process, context and time.

**Objectives:** To understand the factors that influence the development of student's skills in the clinical training.

**Methods:** We use a qualitative methodology, using a case study referring to the Nursing Degree, in UA. Data emerged from narratives.

**Results:** The final results allow us to conclude that the development of abilities occurs in an integrating way, combining synergistically different dimensions and important factors related to the PPCT model. For the Person - emerge the activities, the contact with suffering/death and affective-relational climate. For the process, the proximal process is pointed out, as well as strategies of supervision. In the microsystem, the specificities of each context; in the mesosystem the importance goes to the multicontextual participation; In the exosystem, the interinstitutional relationship and, at a macrosystemic, signs of the influence of the policies of hospital management. With respect to time, the importance of the continuity of the proximal processes and the periodicity of the clinical teaching.

**Conclusions:** The student's skills development is a dynamic, dialectical and progressive process.

**Keywords:** Ecological model. Nursing education. Students.

### NEW PATHWAYS IN TEACHER TRAINING: ASSESSMENT INSTRUMENT OF LITERACY IN MENTAL HEALTH, SUICIDE AND GATEKEEPER ABILITIES

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**Introduction:** Training MOOC environment for teachers/educators is something scarce in Portuguese scientific research. Evaluation tools to assess teachers' gatekeeper capabilities, literacy in mental health and suicide are sparsely used in the type referenced training as well.

**Objectives:** To develop and validate three health literacy assessment tools for teacher in Portuguese.

**Methods:** Gatekeeper Schools (EGK) is an assessment tool. It consists of 20 items that assess the gatekeeper abilities of teachers. Literacy Questionnaire Mental Health (QLSM) assess the knowledge and skills of teachers in mental health with 22 items. Literacy questionnaire Suicide (QLS) used 30 items and assess the teachers' ability to identify students with suicidal behavior and know the myths about the subject. The psychometric properties of the instruments in a convenience sample of 1,144 teachers of Portugal from pre-school to secondary were evaluated. Following statistical methods were used: Descriptive, fidelity analysis with calculation of Cronbach's alpha, factor analysis in main components.

**Results:** By Bartlett's test of sphericity  $< 0.001$  and statistics KMO extraction was allowed five factors with 51.9% of total variance in EGK, 5 factors and 51.1% of variance explained in QLSM and 7 factors and 45% of the total variance in QLS, respectively, KMO.792; .919 and .820.

**Conclusions:** The developed instruments showed good validity and reliability in the sample of Portuguese teachers across the country. It is a good indicator and can be used in research environments in teacher training MOOC environment.

**Keywords:** Questionnaires. Teacher training. Validation.

## 16. HEALTH POLICIES

### PERCEPTION PAIN IN PATIENTS WITH FIBROMYALGIA

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**Introduction:** Fibromyalgia (FM) is set to be a debilitating disease mainly characterized by musculoskeletal pain, fatigue, sleep disturbances, depression, and stiffness. A deep understanding of what this painful and debilitating condition.

**Methods:** It is descriptive-correlational study, the research raises the following question: How is the pain of people with fibromyalgia characterized? The sample consists of 221 individuals with fibromyalgia, including 4 males and 217 female genders. Hypothesis - The perception of pain intensity, pain manifestation, the evolution of pain intensity and widespread pain index influence the FM patients. The instruments were Pain Scale (VAS), the manifestation of pain and Generalized Pain Index.

**Results:** The fibromyalgia sample is mostly females (98.2%), and with an average age of about 45, who resides in urban areas (79.6%), married or living with a partner (71.9%), living with relatives or others (89.1%), having completed secondary education (49.3%) and currently being employed (42.1%). Pain intensity displayed by fibromyalgia has an average value of 7.59 (SD = 4.593), the Generalized Pain Index has an average value of 11.84 (SD = 4.803). The intensity of pain perception and manifestation of pain conditions the patient with FM.

**Conclusions:** The intensity of perceived pain by fibromyalgia patients of this study is, on the average ratings in EVA, equal to 7.59. Most subjects with FM rate their pain as moderate or severe. The Generalized Pain Index has an average value of 11.84, the majority of these individuals perception pain in approximately 12 to 19 corporal regions and their pain manifests continuously.

**Keywords:** Perception. Pain. Fibromyalgia.

### DEVELOPMENT OF A CHECKLIST TO IMPLEMENT AND MONITORING HACCP IN SMALL AND MEDIUM-SIZED PUBLIC CATERING ESTABLISHMENTS

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**Introduction:** It is essential to ensure the technical, functional and hygienic conditions of food in public catering establishments, to ensure the supply of safe meals.

**Objectives:** This study aimed to develop a checklist as a tool for evaluation and diagnostics of the technical-functional conditions and hygiene of the establishments in small and medium-sized public catering companies, based on Portuguese and European Community laws.

**Methods:** The work was conducted in four main stages, namely: (1) compilation, ordering and assessment of the European and Portuguese laws; (2) planning, development and preparation of the checklist; (3) "Pre-Test" (4) Application of the final checklist as an implementation and monitoring HACCP tool in 22 public catering companies for a period of two years.

**Results:** The developed tool was easy to use, follow the operational flowchart of the food sector and the steps necessary to implement and monitoring HACCP, enabling rapid diagnosis and easy judgment between different establishments of public catering.

**Conclusions:** The use of standardized tools to assess food safety in public catering allows establishing direct correlations between the conditions of the facilities, adoption of best practices and implementation processes and HACCP monitoring between different establishments. It was possible to verify that in the course of study time the assumptions evaluated were improving in all establishments, especially those related to good food handling practices.

**Keywords:** Food safety. HACCP. Public catering. Checklist.

### THE PERMANENT EDUCATION IN HEALTH AND THE MULTIPROFESSIONAL RESIDENCY PROGRAM IN HEALTH IN BRAZIL

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**Introduction:** The Project is involved in the research funded by The National Council of Scientific and Technological Development (CNPq) about the Multiprofessional Residency Program in Health in Brazil (RMS), bound by the Permanent Education in Health Policy. This program aims to develop the continuing education for health professionals, humanization and the public health services quality extension.

**Objectives:** Analyse the Permanent Education proposal through RMS Programs in the State of Minas Gerais/Brazil.

**Methods:** Literature review, documental field researches through the use of questionnaire - Google Forms, together with the people involved in the program (Tutors, Preceptors, Coordinators and Residents) The analysis of the empirical material occurred by the Content Analysis.

**Results:** Were identified that RMS Programs has Pedagogical projects with a workload of 5.260 hours, 2-years duration, attending the Permanent Education in Health, project with focus on the multiprofessionality, interdisciplinarity, completeness, education-service-community integration, knowledge production and skills development to work for to Public Health System. However, were identified that requires investment in infrastructure, human Resources and financing the permanent education in health.

**Conclusions:** The RMS Programs in Minas Gerais has promoted qualification for the health promotion by means of the approach to the social policy and cultural contexto of the place/region, to the socio-epidemiologic with pedagogical approach focused on the integral, humanized, multiprofessional and interdisciplinary formation of the people involved on the knowledge apprenticeship process.

**Keywords:** Health policy. Permanent education in health. Multiprofessional residency in health. Health promotion.

### TRAINING, MOTIVATION AND EMPOWERMENT OF PORTUGUESE NURSES

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**Framework:** Motivation at work is related to the productivity and quality of the care provided by the nursing staff. It implies the recognition of a successful performance, the rewarding of good results and active participation in care management.

**Objectives:** To establish the influence of the variables training and motivation to the professional practice in the empowerment of nurses.

**Results:** The nurses polled were aged 26 to 66 and most had a professional link (for an unlimited period of time) to the institution where they work. Forty percent (40%) of the participants in this study are very motivated and seventy percent (70%) of the surveyed continue to invest in proper professional training. The nurses that



show higher motivation for their work are those who disclose better empowerment in personal dimension, in multidimensional dimension, in peer recognition and in organizational acknowledgement. However, the percentage of explained variance of motivation regarding the different dimensions is minor, ranging from five percent (5%) in the interpersonal dimension to ten percent (10%) when it comes to peer recognition.

**Methods:** A quantitative study, descriptive analytical and correlational with non-probabilistic sample of 240 nurses. Data sample from June 2014 to December 2014, with implementation of an instrument composed of a professional and socio-demographic questionnaire, through the "Perceptions of Empowerment in Midwifery Scale" (Mathews, Scott and Gallagher) and the scale of motivation to professional exercise.

**Conclusions:** From the results obtained we can conclude that nurses who reveal better perception of Empowerment are those who are more motivated and having a better training.

**Keywords:** Motivation. Empowerment. Nurses.

### SURVEILLANCE AND PREVENTION CULICIDAE VECTORS - THE PORTUGUESE CASE

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**Introduction:** Dengue and Zika are considered a disease of the XXI re-emerging century are a major public health problems in the world, not only because it affects thousands of people, since the mosquito *Aedes aegypti* tends to reproduce in homes but also because it is considered one of the most important viral diseases transmitted by animals. In health surveillance Environmental Health Race of the environment, and its mission is to analyze, prevent and correct the health risks, which are environmental or potential. It is in this sense that environmental health is as important to end this disease, and in the meantime to prevent it does not affect human health.

**Methods:** The study is based on data from DGS program and INSA, Revive, which plating the presence of mosquitoes and larvae that can cause contamination and diseases originating from mosquitoes, the analysis of these data and the other allows us to see the need for prophylactic care to have in our country, especially in Madeira, which, for its location and climate can foster the emergence of these.

**Results:** Samples and data collected by the REVIVE program did not detect the presence of the virus mosquitoes in continental Portugal, however climate change that Portugal crosses can cause the onset of mosquito vectors of carriers, so you want to public education for preventive measures can combat the proliferation of mosquitoes mosquito carriers.

**Conclusions:** Although there are no mosquitoes, as educate the public for mosquito prevention measures. Thus, this study provides a number of solutions to minimize the proliferation mosquito vectors.

**Keywords:** Culicids. Dengue. Zika. Environmental health.

### A NATIONAL REFERRAL OF AN INTEGRATED NETWORK OF CONTINUING CARE: A STUDY CASE

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**Introduction:** This study aims to characterize the National Long-Term Care Network (NL-TCN) users. The Portuguese National Health

Service, was restructured in 2006 with the creation of the National Long-Term Care Network to respond to new health and social needs concerning the continuity of care.

**Objectives:** Analyse the sociodemographic profile of the network users and the review of hospital, local and regional management procedures.

**Methods:** We used various methods of observational or experimental nature (data processing and presentation of results with the program Statistical Package for Social Sciences, version 20, descriptive statistics (frequencies, crosstabs and test chi-square)). The Pearson correlation test showed a positive correlation between time procedures at the local and regional management and hospital's length of stay.

**Results:** From a sample of 805 cases, 595 (74%) were admitted in the NL-TCN, a rate lower than the national average (86%). Almost half of the sample was admitted in Rehabilitation Units (46%), while nationally the highest number of admissions was in Home Care Teams (30%). The average time from hospital referral to network admission was 9.73 days with a positive correlation between referred network management procedures and hospital length of stay.

**Conclusions:** For specialized units, the maximum waiting times were for the Long-Term and Support Units (mean 30.27 days) and the minimum waiting times were for Home Care Teams (mean 5.57 days). The average time between the local and regional management was 3.59 days. Almost 90% of referrals were orthopaedics, internal medicine and neurology and Network users were mostly elderly (average 75 years old), female and married. Most users were admitted to inpatient units (78%) and only 15% remained in their home town.

**Keywords:** Healthcare system. Hospital discharge management. Long-term care network.

### HEALTH POLICIES IMPLEMENTATION: PORTUGUESE NATIONAL STRATEGY FOR THE PROMOTION OF PHYSICAL ACTIVITY, HEALTH AND WELL-BEING

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Physical inactivity is considered as one of the main risk factors for non-communicable diseases. Given the high inactivity levels in Portugal and the fact that physical inactivity is the seventh risk factor that contributes to the burden of disease. Ministry of Health has recently launched the National Strategy for the Promotion of Physical Activity, Health and Wellbeing. The main focus of the strategy is to improve the health of Portuguese citizens by promoting physical activity. To reach the objective proposed. five strategic axes are presented: to boost the development and implementation of strategies focused on reducing sedentary behaviour and barriers to be physically active. to encourage the participation of all reducing inequities in access. to promote cross-sectoral engagements and multidisciplinary interventions. to promote the qualification of professionals and services for the promotion of physical activity. to use strategies based on scientific evidence that contribute to strengthen the production of quality information and research within this field. The strategy implementation process focuses on a combined top-down and bottom up approach. A follow-up committee was created at the central level with representatives of mandated regional structures that were created for this propose. Intersectoral work is central to the implementation of the strategy whose vision is to have a resident population physically active. enjoying the greatest possible number of years with health and disease free.

**Keywords:** Health. Physical activity. Policy.

## 17. MENTAL HEALTH

### MENTAL HEALTH: A DESCRIPTION OF A HIGHER EDUCATION SAMPLE (LEIRIA/PORTUGAL)

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**Introduction:** According to WHO (2013), 25% of people in the world, at some point of their life, may develop a mental disorder. This data places mental disorder as one of the causes of ill-health.

**Objectives:** To characterize an adult sample from Higher Education context concerning a mental health measure.

**Methods:** A total of 271 subjects of a convenience sample of employees and 2<sup>nd</sup> and 1<sup>st</sup> cycle students of the School of Education and Social Sciences from the Polytechnic Institute of Leiria during the school year 2014/2015 were studied as a part of larger research. The sample mean age were 27.59 years old (min: 17, max: 62) and the majority of participants were female (85.6%). The instruments used were: 1) Brief Symptom Inventory (BSI); 2) World Health Organization Quality of Life-BREF (WHOQOL-BREF); A questionnaire to assess sociodemographic variables.

**Results:** The majority of sample (64.2%) reveals having a good perception of their quality of life and 52.7% says they are satisfied with their general health conditions. Concerning BSI subscales this sample shows means below 1 except on the subscales Obsessive-compulsive (OC, e.g., "Having to check and double-check what you do") and Paranoid ideation (PAR, e.g., "Others not giving you proper credit for your achievements").

**Conclusions:** These results are similar to the Portuguese non clinical sample used on the BSI validation study (Canavarro, 2007) which allow us to conclude that these participants show no problems related to mental health as measured with BSI instrument.

**Keywords:** Mental health. BSI. WHOQOL-BREF. Higher education.

### LEVELS OF VULNERABILITY AND POSITIVE MENTAL HEALTH IN NURSING STUDENTS

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**Introduction:** Positive mental health can be defined as a value in itself (feeling good) or as a capacity to perceive, understand and interpret the context, to adapt and alter it, if necessary, in order to promote its autonomy, integration and adaptation. University students are exposed to a group of variables that generate stress. Healthcare professionals must proceed to an evaluation of their mental health in order to intervene in the most vulnerable students, thus developing their capacity to deal with adversity and increase their levels of mental health.

**Objectives:** To evaluate the levels of mental health and vulnerability of Higher Education students.

**Methods:** This is a quantitative descriptive and explanatory cross-correlated study with a non-probability convenience sample of 2,238 students of universities in Portugal and Spain. The evaluation protocol includes a socio-demographic questionnaire, the scale of

vulnerability and a questionnaire of positive mental health. The tools are validated in Portugal and Spain, with good psychometrics properties (Lluch, 1999; Sequeira et al., 2014).

**Results:** The 2,238 students have an average age of 21 years old, with 225 (11.4%) being from the male gender and 1975 (88.2%) from the female gender. 217 (9.7%) claim to have a physical health problem and 58 (2.6%) a mental health problem. In terms of positive mental health, 912 (40.9%) seem to claim to have difficulties in establishing satisfactory interpersonal relationships; 1,141 (51.1%) claim to see their future with pessimism and 969 (43.4%) feel insecure when making decisions.

**Conclusions:** Nursing students find themselves in situations of bigger vulnerability and so they need intervention in the level of mental health promotion to minimize the risk of falling ill.

**Keywords:** Mental health. Students. Vulnerability. Nursing.

### THEMES THAT MUST INTEGRATE A PSYCHO-EDUCATIONAL PROGRAMME FOR FAMILY CAREGIVERS OF PEOPLE WITH DEMENTIA LIVING AT HOME

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**Introduction:** Dementia is a growing global public health concern and in the most of the cases are the family that assumes the care to this people. Psycho-educational programmes aim to teach a set of behavioral and cognitive skills to these caregivers to cope with the difficulties and stress.

**Objectives:** To validate the themes to be included in a psycho-educational programme for family caregivers of people with dementia living at home.

**Methods:** Three methods were used: integrative review with eight articles due to their positive identification with the inclusion criteria. Two focus group developed in March 2015, one in Oporto and other in Tarragona, with a total of 18 nurses experts in the area. Delphi method/study with 26 Portuguese and Spanish experts held between April/May 2015.

**Results:** The themes validated to integrate a psycho-educational programme were: dementia, communication and behavior; emotions, caregiver needs and expectations; basic and instrumental activities of daily living; general stimulation of cognition and environmental management; coping strategies and problem solving; caregiver physical and mental health; relationship management and the use of health and community resources.

**Conclusions:** A psycho-educational programme for family caregivers of people with dementia should integrate the most important themes to address the needs and difficulties of caregivers. However, the aim is to enable the caregiver to carry out their daily tasks and provide it with knowledge and skills. So the themes to be addressed and their organization by different programme sessions should always be determined by the health professional and adapted to the particularities of each family caregiver.

**Keywords:** Dementia. Family caregivers. Training programme.

### WHAT IS THE "SIZE" OF TRAUMA?

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**Introduction:** Studying the trauma can be further more complex as studying the complexity of human being. (Benyakar, 2009). This pa-

per, focused on its dimension and subjectivity, analyzing the traumatic events by its size and significance.

**Objectives:** The goal was to identify, from ten life events, which ones were the most and the less traumatic.

**Methods:** This exploratory study with a descriptive analysis identified, through a preferential answer order inquiry type, the potentially life events more or less traumatic. The given set of 10 events were: natural disaster; war event; traffic accident; chronic disease; mourning; humiliation episodes; systematic depreciation; physical abuse; neglect caregivers and inconsistent parental practice), where 1 would be the less traumatic and 10 the most traumatic event. The sample (not probabilistic one) is of 100 individuals (80 female; 20 male), ranging from 18 to 35 years old. For the data analysis it was used the SPSS 21.0.

**Results:** Approximately 73% of the inquired individuals identify the big events as potentially more traumatic. The remaining 27% split themselves between the set of answers assigned to the casual life happenings, of affective significance. The mourning and the war events were considered the most traumatic (30% per each other). None of the respondents considered the traffic accident as potentially traumatic.

**Conclusions:** The focus is commonly on the biggest events, driving the individuals to center themselves into it, to legitimize or explain their suffer and their pain.

**Keywords:** Trauma. Size. Subjectivity. Psychopathology.

## PERSONALITY DISORDERS, ANXIETY AND MOTIVES MAKE ATTENDERS COME TO DOCTOR'S APPOINTMENTS IN PRIMARY HEALTH CARE ATTENDER

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**Introduction:** Personality disorders (PD) tend to occur with anxiety (Axis I) and also individuals with PD come to primary health care appointments for different motives. In Portugal there is a dearth of literature about personality disorders and comorbidity and also motives they make attenders come to doctor.

**Objectives:** determine the associations between a diagnosis of personality disorder and anxiety (state and trait) and the differences on individuals with PD regarding motives that make attenders come to doctor's appointment.

**Methods:** A sample of 184 individuals (24.5% male, 75.5% female; age 37.09) referenced by a physician in primary care. The SCID-II for DSM-IV was used to measure personality disorders and STAI-State and STAI-Trait for anxiety and also sociodemographic questionnaire.

**Results:** There is a strong correlation between individuals with PD and anxiety state ( $r = 0.342$ ,  $p < 0.05$ ). A most expressive association between anxiety state and cluster A ( $r = 0.193$ ,  $p < 0.05$ ) and cluster C ( $r = 0.276$ ,  $p < 0.05$ ) and anxiety trait and cluster C ( $r = 0.342$ ,  $p < 0.05$ ). There are also statistical significant differences between individual with and without PD and motives that make attenders come to doctor's appointments ( $\chi^2 = 35.98$ ;  $p = 0.0007$ ).

**Conclusions:** The results support the evidence regarding the association between PD and anxiety and different motives they make attenders come to doctor's appointment. This suggest a proper and careful assessment in terms of mental health in primary health care, will allow the appropriate treatment of these patients, as well as prevent recurrence of the excessive doctor's appointments.

**Keywords:** Personality disorders. Primary health care. Anxiety.

## PSYCHOLOGICAL SUPPORT IN UNIVERSITY: PSYCHOLOGY SERVICE OF THE INSTITUTO POLITÉCNICO DE VISEU

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**Introduction:** The focus of psychological intervention in university context have suffered changes through the years, centring itself today, beyond of the vocational issues and the career managing, in the variations connected to the personal development and to the well-being intra-subjective.

**Objectives:** to describe and to analyze the activity of the Psychology Service (SEP) of the Instituto Superior Politécnico de Viseu, in the period of 2010 to 2015.

**Methods:** Descriptive analysis of the received requests in SEP ( $n = 53$ ), in a total of 912 provided consultations, identifying gender, age, nationality, organic unit, the reason of the request and main difficulties.

**Results:** The students that ask for help are, mostly, feminine gender students (59%), who find themselves displaced from their birth town, remain in Viseu to study. The main reasons for the request of consultations are: anxiety problems (41%) depressed affection (21%). However, preoccupations with the academic evaluation (15%) and other affective problems (11%) enter into this request for aid.

**Conclusions:** The clinical indicators forward us to a development problematic, with issues connected to the moment of transition to the adulthood (with a exposure of previous weaknesses and the magnification of future anxieties), such demonstrate the relevance

WITHDRAWN ABSTRACT

of the service in the promotion of student's health towards to potentiate the academic skills and to allow the consolidation of a future path.

**Keywords:** University. Students. Psychotherapy.

### DEPRESSIVE SYMPTOMS AND CANCER: A COMPARATIVE STUDY

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**Introduction:** Several studies have found high rates of depressive symptoms among patients with cancer (Honda & Goodwin, 2004).

**Objectives:** Compare the depressive symptoms of a sample of patients with solid tumors of the digestive system with metastatic or locally advanced disease, with no oncological samples.

**Methods:** This is a quantitative exploratory study with a non-probability convenience sample of 91 patients with solid tumours of the digestive system, with locally advanced or metastatic disease. To assess depressive symptoms we used CES-D (Radloff, 1977, Portuguese version of Gonçalves & Fagulha, 2003). We compared the sample with cancer with samples of the general population (n = 135) and samples of users of Primary Health Care (n = 260), assessed by Gonçalves e Fagulha (2003).

**Results:** The sample with cancer reveals depression symptoms rates below of the sample of users of Health Primary Care (t (90) = -7.33,  $\alpha < 0.001$ ), and not differs significantly from the general population sample (t(90) = -1.83,  $\alpha = 0.07$ ).

**Conclusions:** The sample of cancer patients, shows no more depressive symptoms, showing even less symptoms than users of the Primary Health Care. In this context, it will be important to investigate whether these results are due to an effective no intensification of depression in patients with cancer or are due to the inhibitory effect of type C functioning in the manifestation of symptoms (Andreu, 2001; Holland & Lewis, 2001), as the psychodynamic constructs of cold depression (Sá, 2009), failed depression (Matos, 2003) and caracterial depression (Sami-Ali, 2003) seem to suggest.

**Keywords:** Cancer. Depression. Type C. Cold depression.

### DEPRESSION, ALEXYTHYMIA AND CANCER PROGRESSION: A COMPARATIVE STUDY

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**Introduction:** Some studies seem to suggest the hypothesis of depressive symptoms (Prieto et al, 2005) and alexithymia (Manna et al, 2007; Todarello et al, 1994, 1997) are associated with cancer progression.

**Objectives:** Compare depressive symptoms and alexithymia scores among a group with disease progression and a group without disease progression.

**Methods:** This is a quantitative explanatory study with a non-probability convenience sample of 91 subjects with solid tumours of the digestive system, with locally advanced or metastatic disease. To assess depressive symptoms we used CES-D (Radloff, 1977, Portuguese version of Gonçalves & Fagulha, 2003). To assess alexithymia we used TAS-20 (Taylor, Bagby & Parker, 1994, Portuguese version of Prazeres, Parker & Taylor, 2000). After a period (which ranged from five months to a year) to monitor the disease evolution, we

compared the depressive symptoms and alexythymia in the groups with (n = 50) and without (n = 41) disease progression.

**Results:** The groups with and without progression did not differ significantly with regard to depressive symptoms (U = 1196, W = 2.47,  $\alpha = 0.17$ ) and alexythymia (t(89) = -1.33,  $\alpha = 0.19$ ).

**Conclusions:** The results do not support the hypothesis of depressive symptoms and alexithymia can be associated with the progression of the disease.

**Keywords:** Cancer. Depression. Alexythymia.

### SYMPTOMS OF DEPRESSION, SUICIDE RISK AND SOCIAL SUPPORT IN NURSING STUDENTS

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**Introduction:** Health care university has revealed the highest prevalence for depressive disorders than the general population.

**Objectives:** To determine the symptoms of depression, suicide risk and social support in nursing students from a public school in the north of Portugal.

**Methods:** Quantitative study, cross-sectional, descriptive correlational. Sample unintentional probabilistic consists of (420 students - 30% of the study population) The data collection was "online" from October to December 2013, with the voluntary fulfillment. The questionnaire consisted of demographic questions, Inventory Beck Depression Inventory (BDI), the Mini International Neuropsychiatric Interview - English version 5.0 and the scale of social support.

**Results:** The sample consists of 86% of students of Degree in Nursing and 14% graduate. Mostly they are female (88.3%) aged (M = 22.36, SD = 4.8), single (93.8%), 30% are displaced and 41.2% receive some kind of financial support. Psychiatric treatment were 23.8% and 4.5% are currently being treated. The final average BDI and MINI is higher in men compared to women. The sociodemographic variables with statistical significance for the risk of suicide are: marital status (p = 0.048), gender (p = 0.015), financial support (p = 0.000), psychological support (p = 0.000). There is a weak negative correlation between suicide attempts and the subscales of satisfaction: family (r = -0.185, p = 0.000) and friends (r = -0.140, p = 0.004).

**Conclusions:** Contact an increased risk for depression and attempted suicide in male nursing students. This type of study allows comparisons with other groups and identifies some influential factors in youth training. It also helps to determine mental health strategies and interventions that can put up there is provision of at-risk youth.

**Keywords:** Depression. Suicide attempted. Social support. Students nursing.

### PSYCHOLOGICAL SYMPTOMS DURING PERIMENOPAUSE IN PORTUGUESE WOMEN: PREDICTIVE FACTORS

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**Introduction:** There is limited evidence that hormonal changes in ovarian function may be a cause for psychological symptoms (depressive, anxiety, irritability) described by women in perimenopause. Identifying the symptoms that are most bothersome to women and distinguishing between those that are due to hormonal changes and those having aging or socially-related etiology, is crucial for research, clinical care and public health policy. Guidelines

for Strengthening Reporting Menopause/Aging (STROMA) provides guidelines for the research of psychological symptoms and factors possibly related to them, among others.

**Objectives:** Identify factors predictive of the psychological symptoms in Portuguese women perimenopause.

**Methods:** Study transversal, correlational; non-probabilistic convenience sample (n = 600 Portuguese women perimenopause, 40-55 years). Protocol included: Menopausal Rating Scale, Scale of attitudes and beliefs toward menopause (built and validated by us); Support Social Satisfaction Scale, Self-Esteem Scale, E2 and FSH levels, sociodemographic, lifestyle, health perception and subjective stressful events. Informed consent was requested.

**Results:** Factors included in the final model, using Forward Logistic regression: assessment of the adequacy of the family budget; satisfaction social support; meaning attributed to menopause; attitudes and beliefs face menopause: changes health aging, changes physical and changes sexuality reproductive capacity; number of meals on average per day; previous osteoarticular disease. The probability of a woman having said psychological problems, according to the logit model adjusted ( $G^2_{(10)} = 227.978$ ,  $p < 0.001$ ;  $\chi^2_{\text{wald}(8)} = 3.196$ ,  $p = 0.921$ ).

**Conclusions:** Nurses can work attitudes, self-esteem and lifestyle factors of the women in perimenopause to promote their mental health in family planning consultations.

**Keywords:** Perimenopause. Symptoms. Psychological factors.

### ATTACHMENT PATTERNS AND SUICIDAL BEHAVIOURS ON HIGHER EDUCATION STUDENTS

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**Introduction:** Every individual has the need to establish affective relationships in order to feel safe, comfortable and supported. Weak bonding might make students more vulnerable towards adversity and thus increase the risk of suicidal behaviours. This study evaluates suicidal ideation prevalence on higher education students and its relationship with attachment patterns.

**Methods:** Quantitative, descriptive and correlational study, applied on a sample of 1,074 students from a Portuguese higher education institution. Data collection was possible through an online platform that included a survey with questions regarding sociodemographical and academic profiling, the Portuguese version of the Adult Attachment Scale (Canavarro, 1995), and the Suicidal Ideation Questionnaire (Ferreira & Castela, 1999).

**Results:** Students' age varies between the 17 and 49 (= 23.9 years old  $\pm$  6.107 SD), the vast majority (64.7%) are females. Results show that the presence/severity of suicidal thoughts is low (= 13.84;  $\pm$  20.29 SD) on a scale from 0 to 180 and cut-off point  $> 41$  for values that suggest potential suicidal risk, and based on that, 84 students were identified (7.8%). We verified significant relationships between suicidal ideation and anxiety and attachment ( $r = 0.314$ ,  $p = 0.000$ ).

**Conclusions:** Although there is not a high prevalence of suicidal ideation on students, we found 84 students in our sample (7.8%) that reveal a potential risk for suicide. The results also show that young students with safe attachment patterns display less suicidal ideation. Safe attachment patterns are therefore essential on interpersonal and social relationships and play an important role during the academic period.

**Keywords:** Suicidal ideation. Attachment patterns.

### THE IMPACT OF INTERNET ADDICTION IN THE MENTAL HEALTH OF COLLEGE STUDENTS

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**Introduction:** Mental health has an imperative roll in general health, and it's known that most mental and physical diseases are influenced by a combination of biological, psychological and social factors, in which takes place the Internet addiction.

**Objectives:** Identify the sociodemographic variables that influence the mental health of college students; identify academic variables that influence the mental health of college student

**Methods:** Quantitative, descriptive-analytical and cross-sectional study with 511 college students of the Central Region of Portugal. It was used a questionnaire on sociodemographic and academic context, and were used the following scales: Mental Health Scale - PhD José Luís Pais Ribeiro (2011); Internet Addiction Test, Portuguese version by Pontes e Patrão (2013).

**Results:** Mostly female students, standing largely in the age group of 17-21 years, living in urban areas, with an average family income. Younger students have high addition to the internet (62.2%). Sex interfere with the mental health of students. The lower the negative impact of adding Internet emotions/feelings and lower its negative impact on daily life, the less anxiety, depression and loss of emotional/behavioral control of college students. The negative impact on daily life establishes a direct relationship with the positive affect, indicating that the greater the negative impact, less positive affect students.

**Conclusions:** The results obtained point to the need to implement mental health programs, by conducting two workshops, promoting social interaction among students, to help them find more effective ways to respond to the daily challenges.

**Keywords:** College students. Mental health. Internet Addiction.

### RESIDENTIAL TREATMENT FOR EATING DISORDERS IN PORTUGAL: A PRELIMINARY REPORT

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**Introduction:** Residential treatments for eating disorders are an increasingly common treatment in the USA. In Portugal, the first public residential treatment opened in September of 2015 in S. João Hospital. This residential programme is based on a multidimensional approach treatment that includes individual and group psychotherapy, occupational therapy, nutritional counselling and multifamily groups. From September to December of 2015, 5 eating disorder patients were admitted and 4 completed the treatment.

**Objectives:** This is a descriptive study about this particular residential treatment, through these 4 study cases, focusing on weight gain and self-reported changes. Participants: 4 patients with an anorexia nervosa (1 male and 4 females) with a mean age of 28 years old (Age range: 25 to 30). The mean length of illness and of treatment was 7 years and 6 years, respectively. Two participants had 7 previous inpatient treatments and the other 2 had 2 previous inpatient treatments. The mean length of stay was 117 days.

**Methods:** Body Mass Index (BMI) was evaluated at admission, discharge and follow-up (3 months). Post-discharge semi-structured

interviews were conducted 5 months after discharge. The interview guide was based on the Client Change Interview (Elliott, 2001; Sales et al., 2007).

**Results:** The mean BMI was 13.01 kg/m<sup>2</sup> at admission, 16.49 kg/m<sup>2</sup> at discharge and 18.24 kg/m<sup>2</sup> at follow-up. All patients after discharge reported changes not only in their food routines and weight, but also in some psychological traits and in their relationships (with relatives and peers).

**Conclusions:** The results suggest short-term improvements in long-term patients that completed this intensive treatment. Future research is needed to focus on quantifying effectiveness over time.

**Keywords:** Residential treatment. Eating disorders. Changes.

## HOSTILE BEHAVIORS IN STUDENTS: SOCIODEMOGRAPHIC AND FAMILY BACKGROUND VARIABLES

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**Introduction:** The Hostile behavior in children and adolescents is a problem of today. Several epidemiological studies reveal a primordial importance of parental relationship to the psychosocial development of the individual.

**Objectives:** Identify the sociodemographic and family background variables that have significant effect on Hostile behavior in children and adolescents.

**Methods:** Quantitative study, non-experimental, transverse, descriptive and correlational and explanatory, involving a sample of 2,728 adolescents (mean age = 14.73 and Dp = ± 2.3). The data was gathered through a questionnaire that evolves dimensions such as Sociodemographic Data, Family Context Data and Buss-Durkee Hostility Inventory.

**Results:** Girls, those with the same age or over 18 years, attending secondary school, living in the city, living alone, or that parents have no partner, that parents have a profession in the operating area and finally whose parents have education to the 3<sup>rd</sup> cycle are those with higher Hostile Behaviors.

**Conclusions:** With the preparation of this study we intend to disseminate the results obtained are an added value to the quality of life of teenagers, trying to reduce the potential risks to the problem of Hostile Behaviors.

**Keywords:** Hostile behaviour. Adolescents. Children.

## ANXIETY IN NURSING STUDENTS

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**Introduction:** The admission to higher education is a period of great changes for younger because makes them more accountable, with more capacity of decision and autonomy of time and financial resources management. In addition, provides them responses to internal and external requests. Sometimes the students may not mobilize responses to overcome difficulties that they will confront, becoming this phase favorable to anxiety conditions.

**Objectives:** Thus, becomes essential to explore the factors that influence the beginner of anxiety namely the influence of socio-

demographic and academic variables, in order to implement strategies that answer effectively to this problem.

**Methods:** This is a quantitative, non-experimental, cross-sectional, descriptive and correlational study. We conducted data collection through a questionnaire based on the scale of Zung. We involved 319 students, mostly of them females (n = 263; 82%). Participants attended the nursing degree (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year) in the 2012-2013 academic year, at the Health School of Viseu.

**Results:** Anxiety in students who attend nursing licensure of Escola Superior de Saúde de Viseu is associated across demographic variables and, there is a correlation between the same and the appearance of anxiety in these same students, resulting in different types of anxiety.

**Conclusions:** We pretend to contribute to the increase of information on the subject, hoping to provide an empirical basis for improving interventions with higher education students.

**Keywords:** Anxiety. Nursing students. Higher education.

## HOSTILE BEHAVIORS AND INTERPARENTAL CONFLICT IN STUDENTS

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**Introduction:** The Hostile behavior in children and adolescents is a problem of today. Several epidemiological studies reveal a primordial importance of parental relationship to the psychosocial development of the individual.

**Objectives:** Identify the sociodemographic and family background variables that have significant effect on Hostile behavior in children and adolescents; To analyze the influence of the perception of children and adolescents against the behavior and interparental conflict in their hostile behavior.

**Methods:** Quantitative study, non-experimental, transverse, descriptive and correlational and explanatory, involving a sample of 2,728 children and adolescents (mean age = 14.73 and Dp = ± 2.3). The data was gathered through a questionnaire that evolves dimensions such as Sociodemographic Data, Family Context Data, Children's Perception of Interparental Conflict Scale, Buss-Durkee Hostility Inventory.

**Results:** The greater the children's and adolescent's perception against the conflict interparental, the greater the Hostile behavior in children and adolescents.

**Conclusions:** With the preparation of this study we intend to disseminate the results obtained are an added value to the quality of life of teenagers, trying to reduce the potential risks to the problem of Hostile Behaviors.

**Keywords:** Hostile behaviour. Students. Interparental conflict.

## HOSTILE BEHAVIOR: AN ACTUAL PROBLEM

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**Introduction:** The hostile behaviors in students is a current problem and very relevant due to individual, social and economic factors.

**Objectives:** To verify if sociodemographic variables (gender, age, grade, place of residence and cohabitation) influence the hostile behavior in children and adolescents; ascertain whether the family variables (marital status, occupation, education level, monthly income) interfere with hostile behavior in students.

**Methods:** Quantitative, cross-sectional, descriptive and analytical study involving a sample of 999 students of the 2<sup>nd</sup> and 3<sup>rd</sup> cycles of basic education, with an average age of 12.15 years (SD = ± 1:46 years). Data collection includes the questionnaire of demographic data and family context, Hostility Inventory Buss-Durkee.

**Results:** Sociodemographic variables, sex, age, area of residence and cohabitation interfered in hostile behavior in children and adolescents, have been girls, older students, residents in urban areas, who live together with parents of that shape higher levels of hostile behaviors as a whole. The marital status of the parents, their secularity and family income also interfered in the hostile behavior of the sample under study, verifying that children and adolescents whose parents have no partner (a) and have an average high/high household income reveal higher levels of hostile behaviors, particularly with regard to resentment, verbal hostility, fear, negativity and global hostility.

**Conclusions:** We hope that this study is a contribution to the prevention of hostile behavior in students, reducing the potential risks of this problem.

**Keywords:** Prevention. Hostile behaviors. Students.

## QUALITY OF STUDENTS' LIFE

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**Introduction:** Quality of Student's Life, can be understood as the perception of satisfaction and happiness, by the student, for multiple domains of life, psychosocial and contextual factors relevant structures and personal meanings. With this study, we intend to meet the Quality of Life of first-year students of Nursing degree, in center of Portugal.

**Objectives:** Evaluate the influence of personality traits on quality of life of first-year students of Nursing Degree and assess the influence of social support on quality of students' life of first year in Nursing Degree.

**Methods:** Descriptive, correlation cross-sectional, quantitative, non-experimental study. The sample consists of 69 students and they are 50 female and 19 male. Data collection was performed using a questionnaire survey with scales: Eysenck Personality Inventory Scale, Satisfaction with Social Support/Family and WHOQOL-brief.

**Results and conclusions:** In the overall sample, we observed that there is a good quality of life for the majority of respondents (69.6%) and 24.6% of respondents have the perception of regular quality of life. Verified, so that the personality traits (neuroticism and extroversion) significantly influence the quality of life of respondents at psychological level, and neuroticism exerts a negative influence and levels of extroversion exercise significant influence. Neuroticism also has a significant and negative influence on the physical, social and environmental dimensions of quality of life. The existence of intimate social support influences the quality of life on a physical level as well as at the social level, here the pair of satisfaction with family.

**Keywords:** Quality of life. Personality. Social support.

## USE OF ANTIDEPRESSANTS IN PORTO, BRAGA AND BRAGANÇA REGIONS

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**Introduction:** Depression is one of the most common mental disorders with a prevalence in the general population of 7.4%. With regard to the treatment of this disease the therapies includes the psychotherapy, changes in lifestyle and the pharmacologic therapy.

**Objectives:** The present study aimed to characterize the use of antidepressants in three regions of Portugal: Porto, Braga and Bragança.

**Methods:** A cross-sectional, descriptive and correlational study was performed through application of a questionnaire to 385 individuals of the three regions (39% males and 61% females).

**Results:** The prevalence of use of antidepressants in North Portugal was 15.1% and the female the main consumers (77.6%). Porto was the region with the largest consumption of antidepressants (56.9%) while in Bragança occurred the lowest consumption (19%). The main consumers were individuals aged 38 to 47 years, followed by individuals aged over 47 years. The main reasons identified to use these drugs were depression (42.4%) following by anxiety (34.8%). Furthermore, it was found that the use of antidepressant drugs is also associated with age, sex and civil status, with p values of 0.02, 0.01, 0.02, respectively. The most commonly used antidepressants were the sertraline (18.3%), escitalopram and fluoxetine (15.3% for both). Importantly, the number of adverse reactions is alarming since that more than half of the consumers was affected by these effects (54.7%).

**Conclusions:** The study highlights that the consumption of depressants occurs mainly in coastal regions, by female and is related to adverse effects.

**Keywords:** Antidepressants. Adverse effects.

## 18. OCCUPATIONAL HEALTH

### CAREERS IN HEALTH SECTOR: ANEMPLOYMENT EFFECTS IN HEALTH PROFESSIONALS

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**Introduction:** Careers in the health sector have been losing their linearity and new types of work relations - precarious, atypical or flexible - and careers are emerging. Anemployment is a recent construct defined has the experience of work, throughout one's career, alternating precarious work and unemployment.

**Objectives:** In this paper, which is part of a larger study, we intend to explore the effects of anemployment in health professionals lives.

**Methods:** Five health professionals (2 nurses, 2 psychologists and 1 occupational therapist) participated in semi-structured interviews

which aimed to collect work life history and anemployment experiences. Participants had in average 32 years old, 9 years of professional experience after graduation and have experienced an average of 6 different types of work relations in their careers Interviews were audiotaped, transcribed and coded in Nvivo Software, using qualitative data analysis.

**Results:** Forty-eight categories emerged and were regrouped into four major categories of anemployment effects: Quality of work life (248 coding references [CR]), Quality of life (64 CR), Vulnerabilization (48CR) and Uncertainty towards the future (24 CR). The five most coded effects were: Payments degradation (42 CR), Added Taxes and expenses and Loss of social benefits (28 CR), Obtaining Satisfaction and recognition (27 CR), Depending on others (20CR), Economic instability (18CR) and Worsening of Mental Health (17 CR).

**Conclusions:** The majority of the anemployment effects found are of negative nature and the few positive effects found are related to obtaining some income, satisfaction and recognition. Careers in health are becoming unstable and unpredictable, which urges researchers to rethink employability in the Portuguese health sector.

**Keywords:** Anemployment. Effects. Health professionals. Career.

## ARE HEALTH PROFESSIONALS BECOMING PRECARIOUS WORKERS?: A QUANTITATIVE DESCRIPTIVE STUDY ABOUT WORK RELATIONS TYPES

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**Introduction:** Precarious work relations and unemployment are becoming a reality in higher education graduates careers and the health sector (HS) has been no exception, with health graduates experiencing precarious/atypical work arrangements.

**Objectives:** In this paper, which is part of a larger study, we aim to obtain detailed quantitative descriptive data on work relations types that health professionals (HP) are experiencing in Portugal, throughout their careers.

**Methods:** An electronic questionnaire was answered by 170 graduates, from which 45 are Health Professionals and the focus of this paper. Participants from several scientific areas of HS were essentially female (86.6%), single (60.0%), childless (82.2%) and with a mean age of 30.36 years ( $\pm 5.64$ ). Additionally, 37% had a Master's degree and 22% had a PhD.

**Results:** HP in this sample have experienced 3.4 ( $\pm 2.03$ ) different types of work relations. Fixed-term contracts (53.3%) and traineeships (53.3%) are the most experienced work relations, followed by independent work (46.7%). Furthermore, 42.2% of health graduates in this sample have experienced overqualified work, 33.3% have been without work bond (unemployment) and 20.0% have worked with no remuneration. Significant statistical differences were found [ $\chi^2(1) = 4.30, p = .038$ ] concerning fixed-term contracts between the single and married participants: Married participants experienced more fixed-term contracts than single.

**Conclusions:** Portuguese graduate HP are becoming precarious workers, which might in risk job security, commitment to work and quality of work life. These possible outcomes of precarious work in HP represents a risk to the quality of Portuguese healthcare and so, this matter deserves urgent consideration, intervention and juridical regulation.

**Keywords:** Precarious work. Unemployment. Health professionals.

## WORKPLACE HEALTH PROMOTION BY MONITORING INDOOR AIR QUALITY

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**Introduction:** Most people spend approximately 80% to 90% of their time indoors. Thus, indoor air quality (IAQ) has a large impact on health and work efficiency. Actually, indoor air pollutants have been ranked among the top five environmental risks to public health. This work aimed to present an effective indoor air quality monitoring system to prevent exposure risk.

**Methods:** The system consists of a low cost indoor air quality monitoring wireless sensor network system, developed using micro sensors, for storage and availability of monitoring data on a web portal in real time. Five micro sensors of environmental parameters (air temperature, humidity, carbon monoxide, carbon dioxide and luminosity) were used in each module, but other sensors can be added as needed. The system was tested by monitoring the IAQ in two classrooms.

**Results:** The results reveal that the system can provide an effective indoor air quality assessment to prevent exposure risk. In fact, the indoor air quality may be extremely different compared to what is expected for a quality living environment. Nevertheless, the system needs further experimental validation in real environments, in particular with the assembly of more than two remote modules as used in laboratory tests, in order to verify and calibrate the system more accurately. In addition to this validation study, physical system and web portal improvements have been planned with a view to adapt the system to specific cases or problems.

**Conclusions:** Systems like this would have benefit as public health interventions. It can be used to help the building manager for proper operation and maintenance to provide not only a safe and healthy workplace, but also a comfortable and productive one.

**Keywords:** Occupational health. Exposure risk. IAQ. Sensors.

## ENGAGEMENT AND LABOUR STRESS IN NURSING

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**Introduction:** Engagement is a useful concept in the profession of nursing as it focuses on the positive dimension of human behaviour and visualizes the work context as a positive situation.

**Objectives:** Evaluate the stress and engagement levels on Portuguese and Spanish nurses and analyse the factors related to the stress and engagement levels in the two sample groups.

**Methods:** Comparative exploratory study in a quantitative paradigm. Sample of 867 nurses (504 Portuguese, 363 Spanish), female 83.6% (78.6% Portugal, 90.6% Spain) and average age of 37. Portuguese (77.2%) and Spanish nurses (39.4%), work on average 40 hours per week. 60.6% and 57.7% of the Spanish and Portuguese respectively exercise their profession for 10 years. Sociodemographic questionnaire, the Pamela Gray-Toft's Nursing Stress Scale (1981) and Schaufeli & Bakker's Utrecht Work Engagement Scale (2003) were used.

**Results:** In what concerns Engagement there are statistically significant differences in the three dimensions, the p-value of the t-Student test were under 5%, highlighting the Spanish nurses



for being more vigorous, dedicated and absorbed by their work: vigour, dedication and absorption. The sample of Portuguese nurses experience higher stress levels although the difference with Spanish nurses isn't statistically significant. There are statistically significant differences between Portugal and Spain in "Lack of help from colleagues" and also in the psychological domain in general.

**Conclusions:** The Spanish nurses feel more vigorous, dedicated and absorbed by their work. The Portuguese nurses perceive more psychological stress and mention having less help from colleagues.

**Keywords:** Nurses. Engagement. Work stress.

### OCCUPATIONAL HEALTH OF HEALTHCARE PROVIDERS: AN ORGANIZATIONAL CLIMATE STUDY IN RESIDENTIAL STRUCTURES FOR THE ELDERLY

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**Introduction:** Life expectancy increase is one of the greatest human achievements, however, proves to be simultaneously a huge challenge, leading to the growth of official regulated social responses such as Residential Structures for the Elderly (RSE's). Regarding RSE's, there is scarce research on healthcare providers organizational climate (OC) perception.

**Objectives:** This study aims to analyze the OC in five RSE's, including dimensions of occupational health of healthcare providers.

**Methods:** 108 workers participated in the study, mostly women (73%), with an average age of 39.76 ( $\pm$  10.57), married (60%) and with permanent employment contract (88%). The instrument that was built specifically for this study (based on previous validated instruments on OC) revealed  $\alpha$  = .90 and included 50 items organized in ten dimensions: respect for others; satisfaction and recognition; teamwork; leadership; communication; physical environment; ethics and professionalism; decision making; pressure of the musculoskeletal system and stress.

**Results:** Results showed that although in general the OC perception could be considered moderately satisfactory, healthcare providers reported high levels of dissatisfaction about pressure on the musculoskeletal system and with reward system. Some socio-demographic (age, education and gender) and professional variables (employment contract and longevity in the RSE), were significant in OC ( $p \leq 0.05$ ), particularly in stress levels, that nonetheless proved to be low.

**Conclusions:** Strategies to organizational intervention in the five RSE's emerged from these results, were then presented to the board of direction and some were implemented with success. RSE's in Portugal should include OC in their annual plan, especially concerning occupational health practices.

**Keywords:** Health providers. Elderly. Organizational climate.

### PORTUGUESE NURSES PERSPECTIVE ABOUT JOB SATISFACTION AND PROVIDING ASSISTANCE

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**Introduction:** Job satisfaction is an issue of interest in several studies, performed in different health work contexts, from primary care

to the medium and high complexity hospital services. The possible influence of the job satisfaction in patient assistance also has been evaluated. So, it is important to observe the influence of the job satisfaction in providing assistance and possibilities of action, especially in the oncology field.

**Objectives:** This study aimed to identify job satisfaction influence in providing assistance and the resources that could promote them in the context of Portuguese nurses in oncology.

**Methods:** Qualitative study with nine nurses of an oncology service hospital of Portugal. A questionnaire was utilized and the responses of the professionals were transcribed and analyzed in the Bardin's approach. The formal authorization was obtained from the hospital for the performance of this study.

**Results:** For most nurses the job satisfaction influence the assistance because if they are satisfied, the work performance and the providing care are benefited. The nurses reported the importance of resources related to communication and team dialogue, computer program, site preparation of chemotherapy, work conditions and patient flow in the assistance network. Also, the time for reflection and self-analysis, relaxation techniques, among others were cited in the resources.

**Conclusions:** The study found that for most participants the assistance is influenced by job satisfaction, and identified measures that can favour them.

**Keywords:** Job. Satisfaction. Nurses. Oncology Nursing.

### JOB SATISFACTION IN CIVIL SERVICE WORKERS: A GENDER ISSUE?

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**Introduction:** Job satisfaction has been widely studied to be understood as an important component of productivity and stay in work, for absenteeism reduction in organizations. It can be understood as an emotional state of pleasure that results from the relationship between the individual with his work. Among the determinants of job satisfaction, gender appears as one of the pre-established determinants (Sloanne; Williams, 2000). The job satisfaction is a variable that influences the success of organizations and takes particular interest in occupational health services, so their assessment goes beyond the research interests and has applicability practice.

**Objectives:** To evaluate the relationship between job satisfaction and gender issues of civil service workers.

**Methods:** Quantitative, descriptive and exploratory study, with data collection conducted through structured questionnaire with job satisfaction scale (S20/23). The population are employees of a municipality of Portugal. The sample consisted of 604 participants 1,343 workers, with a sampling error of 4% and 99% confidence interval, represented 45.86% of the total.

**Results:** Considering the satisfaction components: satisfaction with hierarchical relations; Satisfaction with the physical work environment and the conditions intrinsic to the work, it was found that the distribution of the overall job satisfaction, satisfaction with the physical working environment, with hierarchical and satisfaction relations with the intrinsic conditions to work is same for men and women.

**Conclusions:** Although there are differences between the average in overall satisfaction between men and women, the difference is not significant, which allows to affirm that gender does not influence job satisfaction.

**Keywords:** Job satisfaction. Gender and health.

## WORKLOADS IN PRIMARY HEALTH CARE IN BRAZIL

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**Introduction:** Workloads are found elements in the work process that synthesizes mediation between worker and work wear. At fillers interact with each other and whose body does the work, they do not act in isolation but in combination with each other, and determines the condition in which the worker faces the global logic labor process.

**Objectives:** To identify elements that contribute to increase and decrease workloads on health care professionals working in Primary Health Care in Brazil.

**Methods:** Qualitative study conducted with the data were collected through document study, observation and semi-structured interviews with 40 health care professionals of Primary Health Care in the south, central-west and north regions of Brazil. The analysis was conducted associating data triangulation with the resources of the ATLAS.ti software, considering the aim and the theoretical framework defined for the research.

**Results:** The results were organized in two analytical categories: elements that increase and decrease workloads. The data showed a predominance of the elements that increase workloads with strong influence of working conditions and problems in the health system management. Among the elements that reduce the workloads, stood out teamwork, identification with the Primary Health Care model and the user's satisfaction.

**Conclusions:** To conclude, the health care professionals recognize the precepts of Primary Health Care as positive, but difficulties in work conditions and in the health system management negatively influence the workloads.

**Keywords:** Primary Health Care. Workload.

## JOB SATISFACTION: THE PERCEPTION OF PERIOPERATIVE NURSES FROM UNIDADE LOCAL DE SAÚDE DO NORDESTE (ULSNE)

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**Introduction:** With so many changes in the health sector, it is important to realize if nurses are satisfied in the exercise of their professional activity.

**Objectives:** To evaluate the perception of perioperative nurses from ULSNE about satisfaction with work activity.

**Methods:** It's an observational, analytical and cross-sectional study using quantitative methodologies, applied to 41 perioperative nurses of Bragança, Macedo de Cavaleiros and Miranda. The data collection instrument includes questions relating to the socio-demographic and professional characterization and the Satisfaction Scale Work (EST) (Ribeiro, 2002), which is composed by 6 dimensions: Security for the Future of the Profession (SFP), Hierarchy Support (AH), Recognition by Others of the Work Performed (ROTR), Physical Conditions of Work (CFT), Relationship with Colleagues (RC) and Satisfaction with Job (SP).

**Results:** The population is composed of 30 women and 11 men (average age 44.05 years). 43.9% work in Bragança's operating room (OR). There are significant differences between Academic Qualifications and SFP dimension ( $p = 0.036$ ), Place Where They Work

and the CFT ( $p = 0.000$ ) and global scale ( $p = 0.001$ ), Type of Work Schedule and SFP ( $p = 0.004$ ), ROTR ( $p = 0.005$ ), CFT ( $p = 0.004$ ) and overall scale ( $p = 0.001$ ), Social Recognition of the Profession and SFP ( $p = 0.06$ ) and SP ( $p = 0.021$ ). There aren't correlations between Professional Practice Time and Professional Practice Time in OR with the 6 dimensions and the global scale.

**Conclusions:** The place where perioperative nurses perform functions influences their job satisfaction. Nurses of Bragança's Hospitalar Unit are those with lower satisfaction values in most of the dimensions and in the global scale.

**Keywords:** Satisfaction. Work. Nursing. Operating Room.

## THE FACTOR OF THE GDP INFLUENCE IN THE ACCIDENTS AT WORK IN PORTUGAL

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**Introduction:** In recent years, with the decline in health of the economy, much has been discussed the interference of this condition in the evolution of health and safety, it's intended then infer the interaction between economic status and health and safety at work, using treated to this the number of workplace accidents registered by the National Statistics Institute between the years 2002 and 2012, crossing with these data for the GDP and the Portuguese workers in the same years.

**Methods:** Statistics analysis with SPSS v.22 by the data center of INE of the public results between the year 2002 and 2012, the last 10 years result published, and discussion with other author's results.

**Results:** The Portuguese reality in which men are hand-intensive preferred in most professional risk sectors, such as fishing, construction and heavy industry, for example. However not revealed a high importance on the correlation between GDP and industrial accidents as there are no relevant variances within the same sector. The study shows, contrary to our expectations at the start of the study, and according to the correlations studied, we can see that GDP growth has no significant relationship in the number of accidents at work, as can be seen. What as a relevant different in the work accidents are the number of active workers.

**Conclusions:** From this study we can see that is not the economic situation influencing the accident because the variances that exist, both positive and negative, are not statistically significant, the there are other variables that can influence de accidents at work, such as instruction, age and risk accident.

**Keywords:** Safety and health. Accidents at work. GDP.

## OCCUPATIONAL EXPOSURE TO TOTAL DUST IN FARM WORKERS

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Agriculture is considered from many centuries, an important activity for the survival of man, since it is from practice that man can get food products for his survival. In the agricultural sector, there is many respiratory hazards due to exposure that workers can have with organic and inorganic dust, chemicals and gases. Thus, to better understand exposure to total dust that agricultural workers may have throughout their working day, the objective of this study was to understand what the exposure levels that workers have in

relation to total dust, and if it exceeds the exposure limits. For this study, determination of total dust samples were collected using personal monitors of aerosols at various sampling points represented by workers. The data obtained from the measurements were then analyzed and compared with the exposure limits present in the national standard NP 1796: 2014. Exposure to total dust that agricultural workers of this study obtained during their workday was not significant, with a large number of values below the exposure limits. However, long exposure to the agricultural labor forces, can lead to workers develop occupational diseases such as chronic bronchitis, hypersensitivity pneumonia, asthma. One can also conclude that exposure levels may defer depending on the type of task performed and depending on the type of material used for carrying out tasks.

**Keywords:** Total dust. Agriculture.

### OCCUPATIONAL EXPOSURE TO BIOLOGICAL AGENTS IN THE WASTE INDUSTRY - CHARACTERIZATION OF BACTERIA AND FUNGI IN AIR, OPER

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**Introduction:** Waste management and recycling sector is thriving and the number of workers is sharply increasing. Prior knowledge of the risks to which workers are exposed is of crucial importance, and preventive measures need to be put in place to accurately identify and quantify those risks.

**Objectives:** This study aimed to assess the occupational risk of exposure to biological agents (viable bacteria and fungi) in the waste industry.

**Methods:** The experimental component in this study comprised environmental collections in five waste sorting facilities and three landfill sites. Duplicate air samples were collected through an impaction method during a period of nine months. Simultaneously, hygiene indicator samples were carried out aiming the evaluation of the microbiological contamination and transmission of biological risks through contact surfaces (fomites) at water tap's and doorknob in the bathroom, lockers' knobs, administrative services knobs and the inside of protective breathing masks. The biological contamination of the operator's hands was equally assessed. Total concentration of airborne bacteria and fungi were determined as well as the prevalent species were identified.

**Results:** As a result of the 134 air samples and 338 hygiene indicator samples, 1,434 bacterial and 716 mould identifications were performed.

**Conclusions:** The results of this research show the existence of an expressive contamination of viable bacteria and fungi in the waste industries, confirming the need for specific training plans, related with the occupational exposure to biological agents.

**Keywords:** Bioaerosol. Waste.

### OCCUPATIONAL EXPOSURE TO BIOLOGICAL AGENTS IN NURSING HOMES

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Biological agents are microorganisms that may be present in the workplace and may constitute a risk to the health of workers.

The main source of biological agents are small particles carried by air, aerosols, which are composed of micro-organisms, toxins or fragments of microorganisms. In the legislation there are no limit values for exposure to biological agents, it is not possible to make a dose/effect relationship of the values of exposure. It is pertinent to develop studies on this subject in nursing homes, because these institutions are provided health care to the elderly. Therefore the general objective of this study is to see if there is exposure to biological agents in nursing homes. For this collections were made of air and environmental surfaces (hands of workers) in two homes. Being made subsequently laboratory analysis of samples taken for identification of bacteria and fungi. The results revealed that there is exposure to biological agents in the homes. The most of bacteria isolated are Gram positive. The genera identified were Staphylococcus, Cladosporium, Rhodotorula, Penicillium, Aspergillus, Rhizopus, Absidia. The absence of limits established by law, makes it impossible to evaluate the severity of occupational exposure to biological agents in the homes studied. Being, however, important that measures be taken to correct handwashing and spaces, as well as protective measures for workers in order to minimize the risk of exposure.

**Keywords:** Occupational exposure. Biological agents. Nursing.

### PROFILE OF TEACHERS IN MORBIDNESS UNIVERSITY OF BRASILIA - UNB

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**Introduction:** The profound transformations of the working world has required the mastery of new skills and competencies by professionals. Higher education is also undergoing changes, adopting the productivism, which leads to massive publication in journals. It is necessary to understand how these changes may impact on the health of teachers, concern of this study and results of dissertation.

**Objectives:** We sought to compose the profile of the teaching morbidity of teachers at the University of Brasilia - UNB, historical series of 5 years. The timeframe was the implementation of the Program of Support Plan for Restructuring and Expansion of Federal Universities Brazilian, assuming relationship between the campus infrastructure, working conditions and profile of newly hired professionals with the illness, believing there precariousness of work.

**Methods:** From descriptive epidemiology parameters proceeded to the collection of primary data records of the International Classification of Diseases - ICD, along with medical records and institutional data professionals were raised. The study had the approval of the Ethics Committee.

**Results:** Of the 2,507 effective teachers at UNB, 2,218 were active during the study period, 202 of these had episodes of sick leave. The higher prevalence of departure from teachers was between 41 and 60 years old, female, single. They were computed for the period 15,108 days of departure.

**Conclusions:** There were several morbidities as a justification for the removal, it highlights the mental and behavioral disorders and the musculoskeletal system diseases and tissue. Other than that it was believed the pioneer campus teachers had a higher frequency of removal, suggesting the time of exposure to teaching as corroborative factor to morbidity.

**Keywords:** University of Brasilia. Teacher. Morbidity.

## RESILIENCE IN NURSES WHO TAKE CARE OF CRITICAL PATIENTS

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**Introduction:** Resilience is a set of social and intrapsychic processes which allow a healthy life in risk environment (Ruter, 1993). Nurses are the answer to specific needs of a person in a critical condition; they offer safe and qualified care. According to Bicho (2007), nurses, due to their role and presence, can - and should - be tutors of resilience, as they facilitate resilience processes through their attitudes.

**Objectives:** To know resilience and other personal skills (self-esteem, self-realization) of nurses who take care of critical patients.

**Methods:** Quantitative/descriptive study, with non-probabilistic convenience samples, made by 96 caring nurses of Sousa Martins Hospital in Guarda. This data was acquired through a questionnaire with Escala de Avaliação Global da Autorrealização (EAGAR), Escala de Avaliação Global da Autoestima (EAGAE) e Escala de Avaliação Global da Resiliência (EAGR), from Jardim e Pereira (2006).

**Results:** We can conclude that nurses show a high or medium resilience capacity and high or medium self-esteem and self-realization level. Low levels in each of these evaluated personal skills were not found.

**Conclusions:** Nurses with high levels of self-realization and self-esteem can ensure quality when they take care of patients in critical conditions. Nurses who take care of patients in critical conditions usually face complex situations which cause stress. Thus, it is important find strategies in order to solve this type of situations and help them show a high resilience capacity.

**Keywords:** Resilience. Nurses. Self-esteem. Self-realization.

## PORTUGUESE NURSES' STRATEGIES FOR JOB SATISFACTION

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**Introduction:** Literature and research recognize job satisfaction as an important feature, which may have implication for nursing professionals and impact on their work.

**Objectives:** To identify the strategies utilised by Portuguese nurses of an oncologic service to achieve job satisfaction.

**Methods:** A qualitative study, conducted from formal authorization from the grantor hospital of Portugal. Nine nurses of the oncologic service participated of the study, and answered a questionnaire. The Bardin's approach oriented the analysis of the written material.

**Results:** The nurses, when questioned about the strategies which they utilised to have job satisfaction reported in greater proportion the use of relaxation techniques, meditation or relaxation by breathing; and the search for obtain knowledge related to work or oncology field, and incorporate them in the care practice. In addition, were cited strategies related to patient care and family, the relationship with the team, the attitude adopted in case of having problems and leisure time activities, among others.

**Conclusions:** The study showed that job satisfaction is achieved from several strategies among Portuguese nurses of an oncologic service.

**Keywords:** Job satisfaction. Oncology Service. Hospital nurse.

## PSYCHOSOCIAL RISKS IN HEALTH CARE WORKERS

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**Introduction:** The successive social, political, economic and technological changes of the twenty-first century, have come to wield impact on the characteristics of work and organizations. Psychosocial risks, work-related is recognized nowadays, by the governments and National, European and World entities, as a matter of high relevance.

**Objectives:** Assess levels of psychosocial risks at work, for health professionals in Viseu region.

**Methods:** It was conducted a non-experimental study, quantitative and transversal, following a descriptive and correlational route. A non-probabilistic convenience sample was used, consisting of 578 health professionals performing its functions for more than six months in health institutions. For the measurement was used the Copenhagen Psychosocial Questionnaire.

**Results:** We have found that the most prevalent psychosocial risks in health professionals, are found at the level of the dimensions "Work Organization", "Personality" and "Offensive Behaviour".

**Conclusions:** The results of this research confirm the presence of psychosocial risks in workers in the health sector. Thus we believe to be of utmost importance that Health and Occupational Safety Services, shall undertake assessment of psychosocial risks in their institutions and adopt prevention policies.

**Keywords:** Psychosocial risks. Health professionals. Work.

WITHDRAWN ABSTRACT

WITHDRAWN ABSTRACT

## 19. ORAL HEALTH

### ORAL HEALTH EDUCATION DURING PREGNANCY AND AFTER BIRTH

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**Introduction:** Oral diseases, although preventable, are among the most common diseases worldwide. It is recommended that educational measures be initiated during pregnancy and strengthened after birth.

**Objectives:** identify the knowledge of participants on oral health promotion and prevention of oral diseases; verify if the knowledge of participants increases after the training activity; and determine the sociodemographic factors associated with this knowledge.

**Methods:** A community intervention study was developed in the Health Centers Grouping of the Matosinhos Local Health Unit, consisting of training activities for 97 pregnant women and 48 new mothers on oral health promotion and oral diseases prevention, integrated in the Bem Me Quer Project. The IBM SPSS Statistics vs 22.0 was used, considering  $\alpha = 0.05$ , using the McNemar test to assess significant changes between correct answers in the pre and posttest, and logistic regression uni/multivariate to identify variables associated with “minimal knowledge” and “good knowledge”.

**Results:** The participants had insufficient knowledge about oral health. The training programs were effective in the acquisition of knowledge. Having a good knowledge of oral health is significantly associated with the professional area of “education”; people in this sector are 5.8 times more likely to have good knowledge compared to those in the “health” or “other” sector. A more advanced age seems to explain, although not significantly, a good level of knowledge.

**Conclusions:** This study reinforces the indication of adopting an active role on oral health promotion, and suggests that health educa-

tion be carried out across the entire population of pregnant women and new mothers.

**Keywords:** Health education. Oral health promotion. Oral diseases prevention. Pregnancy. Childhood.

### CHARACTERISTICS OF THE ORAL BIOFILM INDEX IN PATIENTS HOSPITALIZED IN INTENSIVE CARE UNIT 1 OF CHP

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**Introduction:** The oral cavity of an hospitalized patient presents a different flora from normal healthy people. After 48h hours of hospital stay, the flora presents a bigger number of microorganisms that can be responsible for secondary infections, like pneumonia.

**Objectives:** Assess the dental plaque index on patients on admission to an Intensive Care Unit, and reassess 7 days later, to evaluate the efficacy of oral hygiene.

**Methods:** Prospective, descriptive and observational study in an Intensive Care Unit of the CHP. Demographic, admission motive, hospital stay length, feeding protocol, respiratory support need and oral hygiene protocol data was collected. The Greene & Vermillion Simplified Oral Hygiene Index (IHO-S) was used as the assessment tool on the first 24h and 7<sup>th</sup> day.

**Results:** 74 patients were evaluated, 42 of which were excluded for not meeting the minimal dentition. 32 patients had a mean age of  $60.53 \pm 14.44$  years, 53.1% were males and most of medical and surgical scope (37.5% each). Mean Hospital stay of  $15.69 \pm 6.69$  days. The majority of patients were sedated (75%), under ventilator support (81.3%) and with enteric nutritional support, under nasogastric tube feeding. Initial IHO-S score was  $0.67 \pm 0.45$ , rising to  $1.04 \pm 0.51$  ( $p < 0.05$ ) 7 days later.

**Conclusions:** Various studies have proven the importance of a good oral hygiene to avoid bacterial growth and reduce the risk for nosocomial infections. In this study, we've observed a significant worsening of oral hygiene one week after admission. Although this could be unimportant for a one week staying patient, it could indicate an increased risk for nosocomial infections for a longer staying patients, which could benefit from a more efficient oral hygiene protocol.

**Keywords:** Oral biofilm. Intensive care. Oral health. Oral hygiene.

### ORAL HEALTH ATTITUDES AND BEHAVIOURS AMONG PORTUGUESE DENTAL STUDENTS

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**Introduction:** Today's dental students are going to be the future dentists responsible for oral health education and promotion. Oral health professionals' attitudes and behaviours towards their own health reflect their understanding about the importance of oral problems prevention and may contribute to the improvement of their patient's oral health.

**Objectives:** Evaluate oral health attitudes and behaviours (OHAB) among Portuguese students.

**Methods:** We conducted a cross sectional study in a sample constituted by 201 students of Portuguese Catholic University, Viseu. Data collection was performed through a self-administered questionnaire about OHAB, which included the Hiroshima University Dental Behavioural Inventory.

**Results:** We found that 69.5% of the students adopted less adequate OHAB. Only the year of the course influenced the OHAB. Therefore, the higher the year, the better were OHAB. By calculating the variability, we found that the year was responsible for 8.87% of the variation in OHAB and the statistical differences were between the students of 1<sup>st</sup> and 4<sup>th</sup> year and 1<sup>st</sup> and 5<sup>th</sup> year.

**Conclusions:** These results are consistent with some studies that point to the likely influence of the exposure and acquisition of knowledge about OHAB transmitted along the academic education and clinical experience. As students progress through the course, they are more aware and more attentive to their oral health. Consequently, they adopt better attitudes and preventive behaviours. It is very important to change the way we do oral health education. The planning of teaching strategies for oral health behavioural changes should give importance to teaching self-care techniques, towards to alert to the perception of risk factors what are in the origin of oral diseases.

**Keywords:** Oral health attitudes and behaviours. Dental study.

## SHEAR BOND STRENGTHS TO PROROOT<sup>®</sup> MTA AND BIODENTINE<sup>™</sup> WITH DIFFERENT ADHESIVE STRATEGIES

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**Objectives:** To study the influence of the maturation time of the restorative material and of the adhesive strategy on the bond strength to ProRoot<sup>®</sup>MTA and BIODENTINE<sup>™</sup>.

**Methods:** 180 acrylic blocks were prepared and filled out with ProRoot<sup>®</sup>MTA (n = 90) or BIODENTINE<sup>™</sup> (n = 90) and divided into 18 groups (n = 10), according to the storage period of the restorative material (7 days (7d), 72 hours (72h) and 4 hours/12 minutes (4h/12'')), at 37 °C and 100% of humidity and to the adhesive strategy (Scotchbond<sup>™</sup> Universal - etch&rinse version (SUER), Scotchbond<sup>™</sup> Universal - self-etch version (SUSE) and Adper<sup>™</sup> Scotchbond<sup>™</sup> 1XT (SB) [3M ESPE - St. Paul, EUA]). A composite resin (Grandio<sup>®</sup>SO) was then applied. After 24h, the shear bond strengths and the failure modes were evaluated. The obtained values were analysed using Mann-Whitney and Kruskal-Wallis's tests at a significance level of 5%.

**Results:** The maturation time influenced the bond strength to ProRoot<sup>®</sup>MTA (p = 0.007), with values between 7.6 MPa after 3 days and 3.1 MPa after 7 days. However, the adhesive strength was not influenced by the maturation time of BIODENTINE<sup>™</sup> (p = 0.181). The adhesive strategy influenced the adhesion to ProRoot<sup>®</sup>MTA (p = 0.014) and BIODENTINE<sup>™</sup> (p = 0.002). Universal Scotchbond<sup>™</sup> (self-etch) showed the highest adhesion values to ProRoot<sup>®</sup>MTA (7.0 MPa). Universal Scotchbond<sup>™</sup> (etch&rinse) showed the highest values to BIODENTINE<sup>™</sup> (7.1 MPa). The failure mode was mainly of mixed type and was not influenced by any of the factors studied (maturation time: p = 0.053; adhesive strategy: p = 0.214).

**Conclusions:** Different adhesive strategies led to different adhesive strengths on the two substrates studied. The maturation time of the substrate only influenced the bond strength to MTA.

**Keywords:** MTA. BIODENTINE<sup>™</sup>. Shear bond strengths.

## 20. OTHERS

### KNOWLEDGE ABOUT THE RNCCI: AN EXPLORATORY STUDY ABOUT THE PERCEPTION OF NURSING STUDENTS

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**Introduction:** The National Network of Continuing Care (RNCCI) was created in 2006 by Decree Law nr. 101/2006. Its mission is to supply adequate health and social care to all people who, independent of their age, are in a situation of dependence, and its action is articulated with the already existing health and social services, being a multidisciplinary team needed composed out of medical doctors, nurses, social workers and psychologists. Given the aforementioned it's pertinent to perform research, with nurses and nursing students, about this new valence of care.

**Objectives:** Measure knowledge about the RNCCI of 3<sup>rd</sup> and 4<sup>th</sup> year nursing students.

**Methods:** Transversal study of quantitative, descriptive and correlational nature. A non-probabilistic and by convenience sample of 120 students was taken (75% of the population). A questionnaire was created, exclusively based on the Decree Law nr. 101/2006.

**Results:** 75% of the respondents answered wrongly to the statements related to the referral and typology of the answers of the RNCCI. It is verified that the students do not have sufficient knowledge to perform functions or processes related to the RNCCI. Notwithstanding having general knowledge, the students present considerable gaps in the referral process as do the professionals that already work in this area. The hypothesis "There is a relationship between socio-demographic variables (gender and age) and the knowledge of the nursing students about the RNCCI" was validated for gender being the observed differences between female and male respondents statistically significant (p = 0.03).

**Conclusions:** The results highlight the importance of theoretical and/or practical training on continuing care in the undergraduate nursing course outline.

**Keywords:** Knowledge. RNCCI. Nursing students.

### AN IMPACT EVALUATION STUDY OF A SHORT INTENSIVE COURSE TRAINING IN EVIDENCE-BASED NURSING

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**Introduction:** The implementation of Evidence-based Nursing (EBN) requires training of key people regarding evidence. In this study we aim to evaluate the impact of an educative intervention as an implementation strategy of EBN among nursing leaders and local key partners.

**Methods:** We promote an educative intervention on 414 RN in Portugal. Overall we carried out 6 educative sessions. Each one was based on an 8 hours course about EBN main subjects. Data were collected before and after (at least 2 months) the training intervention. Both moments of data collection were based on the Portuguese versions: "Questionnaire Barriers and Facilitators to Using Research in Practice (BARRIERS)"; "Clinical Effectiveness and Evidence Based Practice Questionnaire (EBPQ)"; and the "Attitudes to Evidence-Based Practice Questionnaire (AEBPQ)". Overall we study a merge convenience sample with 650 valid questionnaires.

**Results:** The assessment of unpaired samples demonstrated significant relations in the following evaluation scales and subscales: EBPOQ - Practices  $t(650) = 3.33$ ;  $p < 0.001$ . Barriers - Organization =  $t(650) = 2.63$ ;  $p < 0.009$ . Barriers - Communication =  $t(650) = 4.86$ ;  $p < 0.0001$ . Barriers - Nurse =  $t(650) = 2.37$ ;  $p < 0.018$ . Barriers - Research =  $t(650) = 2.58$ ;  $p = 0.01$ . The results reveal that the educative intervention contributes to a higher awareness of EBN deficits and gaps among nurses. Study findings have several implications for nursing: education, ongoing training and accountability.

**Conclusions:** A short course is an effective approach that can be used to engage nurses in EBN and research utilization. Multi-mixed methods approaches and tailored interventions according to specific clinical contexts, settings and nursing staff should be considerate primarily.

**Keywords:** Evidence-based Nursing. Training program. Impact.

### COMPARING PROFESSIONAL AND NON PROFESSIONALS VIEWS ABOUT EQUITY EFFICIENCY TRADE-OFFS IN HEALTHCARE RATIONING

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**Introduction:** In a context of scarcity, prioritizing patients is plagued with difficulties concerning efficiency-equity trade-offs. According to cost effectiveness analysis, the aim of a public health is to maximize the production of health. However, it has been increasingly obvious that social values, rather than being linear in potential health gains, seem to be increasing with the fair distribution of health care resources.

**Objectives:** This study attempts to compare the opinion of two groups of the Portuguese society, people in general and health professionals, about: 1) efficiency-equity trade-offs related to intervention's effect on patients' health; 2) public involvement in health care rationing decisions.

**Methods:** Quantitative methods were applied to data collected from a random sample of 180 college students and 60 health professionals. A questionnaire was developed with four hypothetical rationing exercises. In each scenario, due to scarcity of resources, respondents must decide which patient to choose. The exercises comprise trade-offs between lengths of life and (i) quality of life; (ii) rule of rescue; (iii) cost of the treatment and (iv) rule of rescue and quality of life.

**Results:** Findings suggest the existence of significant differences in the choices made by both groups. Health professionals seem to: 1) value more the length of life than the quality of life or the rule of rescue principle; 2) agree less with the direct involvement of the public in rationing decisions.

**Conclusions:** Results suggest that healthcare professionals seem to be more in accordance with the efficiency principle while students seem to be more concerned with equity considerations.

**Keywords:** Patient's selection. Efficiency. Equity.

### FOOD SAFETY GOOD PRACTICES IN SEAFOOD RETAILERS IN PORTUGAL

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**Introduction:** Fish and shellfish are an important part of a healthful diet but, as with any type of food, it's important to handle seafood safely in order to reduce the risk of foodborne illness. This study aims to collect data about the good practices of seafood handling in Portugal, so the companies can have a document that provides guidelines to food safety in this sector.

**State of art:** Fresh seafood is one of principal foods available in Portugal, so the retail of this products is very common. The companies in the retail trade sector of fish and shellfish are from the 1<sup>st</sup> of January, 2006, covered by Regulation (EC) No 852/2004 of 29 April 2004, which lists the requirements to Food Safety. The Code of Practice (CP) is an important pillar for any quality system and is an integral part of a food safety program, because lists a set of good practices with the aim of produce food products safely.

**Theoretical and practical implications:** The CP does not replace the implementation of the HACCP system or a system based on their principles, nor a quality system, and does not guarantee the safety of a product at the time of consumption, but it is a good basis for their implementation.

**Conclusions:** This article suggests good practice standards to the retail distribution of fish, allowing the companies in this sector to get to know and inform their employees, with ease, which are the acceptable/unacceptable performs.

**Keywords:** Food safety. Good practices. Fish. Shelfish.

### CORROBORATING FACTORS TO TRAFFIC ACCIDENTS INVOLVING TRUCK DRIVERS: A MULTIDISCIPLINARY APPROACH

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**Introduction:** An exploratory study having as object of research scientific publications that address corroborating factors to traffic accidents evolving truck from the Health Interface/Engineering.

**Objectives:** To conduct a systematic review of the literature covering traffic accidents involving truck drivers identifying corroborating factors to outcomes.

**Methods:** As a strategy was elected the steps defined by Soni and Kodali from descriptors: truck drivers, occupational health, transport behavior, traffic accidents and road safety.

**Results:** Accidents result from the combination of factors related to man, the route and the vehicle. The human factor contributes about 90% of cases. To reflect on road safety is necessary to recognize the potential of real intervention and supervision, education and policing. In the case of truck drivers identified that long periods away from home, wear or lack of family ties, adverse ergonomic conditions and productive pressure can contribute to the manifestation of factors and/or behaviors of corroborative risk of accidents. Observed a relation between the life cycle of the subjects and craft. Concern for the category is justified because of its involvement in most accidents on highways and of these subjects shows changes in health parameters making them potential candidates for sudden death or contributing to an accident.

**Conclusions:** Only the consortium approaches Health and Engineering, with special attention to road safety and behavior in transportation, will it be possible to understand the dynamics and factors contributing to accidents involving the category. Please note that the product presented makes up the doctoral thesis Health Command on Highways - CSR: interfaces between the cornfields health and transport in progress.

**Keywords:** Truck. Accident. Health. Engineering. Behavior.

### SMOKING HABITS IN UNIVERSITY HEALTH STUDENTS

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**Introduction:** Tobacco is one of the most serious global health problems of our time. About six million people a year die due to

factors associated to tobacco, with the economic consequences of rising health care costs, and productivity breakdown of those who become ill. Health professionals play an important role fighting this scourge, especially when they are active part as non-smokers, being the example crucial. It is crucial that these can quit while still students. Universities where health courses are taught have, therefore, an important role in this strategy.

**Objectives:** This work was intended to assess behaviours and attitudes of students of the Coimbra Health School, in order to implement an intervention program to reduce the smoking habit in students of 12 health courses taught.

**Results:** We found a population of 16% smokers and 6.9% ex-smokers. All were presented the same 8 questions, whose answers have been addressed by age, gender, attended course and academic year in which they are. There's the question: do you agree with the restrictions of smoking in school, the oldest (over 26 years) are the most concordant (96.4%) and are also those who answer that they would like the school to be more proactive in helping those who want to quit smoking (100%); In the division by gender, women are the most restrictive of the habit (82.4%) and the ones that agree more with repressive measures. In the division by school year, it is the 3<sup>rd</sup> year (of 4) that refers more discomfort with tobacco.

**Conclusions:** Despite the low number of smokers, there is room to a more interventionist program by the school, aiming at a higher restriction of the smoking habit and an increased promotion of giving up smoking.

**Keywords:** Tobacco. Health students. Smoking habit.

#### DIFFERENCES BY GENDER IN BARTHEL INDEX CHANGE AFTER STROKE: A RETROSPECTIVE STUDY IN THE NORTHEAST PORTUGAL

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**Introduction:** Foreseeing functional recovery after stroke plays a crucial role in planning rehabilitation programs.

**Objectives:** To assess differences over time in functional recovery assessed through the Barthel Index (BI) rate of change (BIRC) between admission and discharge in stroke patients.

**Methods:** This is a retrospective hospital-based study of consecutive patients with acute stroke admitted to a hospital in the Northeast Portugal between 2010 and 2014. BIRC was computed as the difference between the admission and discharge BI scores divided by time in days between these assessments. General linear model analysis stratified by gender was used to know whether there was an increase in BIRC during time period under study. Adjusted regression coefficients and respective 95% confidence interval (95%CI) were obtained.

**Results:** From 483 patients included in this analysis 59% (n = 285) were male. Among women, mean BIRC was 1.8 ( $\pm$  1.88) units/day in 2010 and reached 3.7 ( $\pm$  2.80) units/day in 2014. Among men the mean BIRC in 2010 and in 2014 were similar being 3.2 ( $\pm$  3.19) and 3.1 ( $\pm$  3.31) units/day, respectively. After adjustment for age, BI at admission, type and laterality of stroke we observed an increase in BIRC over time among women such that mean BIRC in 2014 was 0.82 (95%: 0.48; 3.69) units higher than the one observed in 2010. No such increase in BIRC over time was observed among men.

**Conclusions:** We observed an improvement in functional recovery after stroke but only among women. Our results suggest differences over time in clinical practice toward rehabilitation of women after stroke.

**Keywords:** Stroke. Gender. Barthel Index Change.

#### HEALTH PROMOTION MODEL OF MOYRA ALLEN AND NOLA PENDER - AN INTEGRATED APPROACH TO CLASSIFIED LANGUAGE

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**Introduction:** New health policies are focused on citizen's empowerment as an health care customer. Nurses mobilize technical, scientific and relational skills to identify and understand problems, to promote partnership in the implementation and management of a care plan appropriate to customer needs, using a classified language which allows to judge the health gains sensitive to their care. This paper aims to integrate the classified language proposed by International Council of Nursing, International Classification Nursing Practice (ICNP), with the Health Promotion Model (HPM).

**State of art:** Nurses have, over time, supported their intervention on models representing health and disease, on models that explain behaviour changes and on theories and/or theoretical nursing models. ICNP "is an assessment tool to describe nursing practice" (PNA, 2003).

**New perspectives:** The HPM aims to help nurses to understand the behaviour of the main determinants of health, which are the basis for behavioural counseling in healthy lifestyles promotion (Pender, 1996). ICNP helps documenting the standardized care provided to customers and is designed to be an integral part of global information infrastructure, which aims to improve care quality throughout the world (APE, 2003).

**Theoretical and practical implications:** Heydari and Khorashadi-zadeh's findings (2014), show that the HPM is feasible and useful to provide information to intervention's development, to avoid accidents and diseases risk factors, to develop changes in practices and health promotion activities.

**Conclusions:** Although HPM isn't a recent model, its use on clinical practice helps to understand health problems and guides to the solutions that meet customer needs and interests, contributing unequivocally to their empowerment.

**Keywords:** Health promotion model. Nursing. ICNP version 2.

#### NURSES HOSPITALAR EMPOWERMENT

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**Introduction:** In Nursing, the empowerment concept has been used and analysed on the academic literature, with particular interest to health organization's bosses and managers. The nurses perception about empowerment in health organizations is highlighted, becoming determinant in organizational results, professional autonomy, individual and collective power gains and patient cares.

**Objectives:** Evaluate nurses' perception about empowerment (psychologic and structural) and identify the factors influencing such perception and its consequences.

**Methods:** Quantitative and correlational descriptive study, recurring to the application of the scales "Conditions of Work Effectiveness Questionnaire-II" and "Psychological Empowerment Instrument", applied to 269 nurses with hospital functions, 76.6% of the female gender, average age of 40.36 years old, 68.8% licentiates, 16% post-graduated, 14.5% with masters-degree, 19.7% with a professional experience between 20 and 24 years and 34.2% working in the service for less than 5 years.

**Results:** The perception of psychological empowerment is related to the structural empowerment perception. Older nurses and nurses with longer professional exercise time revealed greater com-



petence and less opportunity. Nurses with the longer time in the current service have greater competence and less opportunity, information, support and globally less structural empowerment. Specialist nurses have higher empowerment levels relatively to nurses.

**Conclusions:** Nurses empowerment results from a structured labour ambience, in order to provide access to opportunities, information, support and resources that, combined, are able to mould the conduct and its' feelings.

**Keywords:** Empowerment. Nurses perception. Health organizations.

### WHEN CULTURE DEMANDS CARE, AND CARE IS DEMANDED AS CULTURALLY COMPETENT: JEFFREYS MODEL

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**Introduction:** Nurses provide health care in an increasingly multicultural and global society (Jeffreys, 2008) and, in the midst of this immense cultural wealth, there are benefits, challenges and limitations for those who care. This study aims to develop skills in the adaptation of cross-cultural care to a client, based on the study and application of the Cultural Competence and Confidence (CCC) Model by Jeffreys.

**State of the art:** Transcultural Nursing, studied and described initially by Lenninger has been the subject of study and application by different authors. Jeffreys explains that cultural competence is a multidimensional learning process that integrates Transcultural Nursing, with the three learning domains skills (cognitive, practical and emotional), and where self-efficacy and confidence factors have great influence and impact (Jeffreys, 2012, cited by Toyos 2014).

**New perspectives/guidelines:** Jeffreys stands out for the importance ascribed to the training feature as a cultural competence development process; to ignore diversity or to provide culturally incongruous nursing care can lead to adverse effects on customers and jeopardize their safety.

**Theoretical and practical implications:** Jeffreys model, current and relevant, introduces a tool to assess the extent of culturally specific care provided or planned and the development of appropriate cultural and professional sensitivity.

**Conclusions:** The Health-Disease process of an individual falls within its cultural context. It is therefore mandatory that nurses develop specific skills in cultural areas, and its preparation should begin while in basic training in nursing.

**Keywords:** Competence. Culture. Transcultural nursing.

### CONTEXTS AND FACTORES ASSOCIATED WITH BULLYING

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**Introduction:** School violence discloses a phenomenon that has acquired a marked visibility in today's society, becoming a reality in all schools. With these aggressive behaviors comes a new conception, which increasingly reveals a concern for the community, the bullying (Eiras, 2009).

**Objectives:** Identify bullying as a health need in schools; identify the factors associated with bullying.

**Methods:** Integrative Literature Review, and were analyzed 7 articles published in MEDLINE, Scientific Electronic Library Online (SciELO), the Online Knowledge Library (B-on) and the Repositório Científico de Acesso Aberto de Portugal (RCAAP), whereas inclusion

criteria were established the Portuguese, English and Spanish and the interval 2011-2016.

**Results:** After analyzing the articles selected for the preparation of this monograph, we identified the following contexts and factors associated with bullying.

**Conclusions:** Age with higher prevalence, where this phenomenon was found is between 12 and 13 years; gender, where there is no consensus on the influence of the same in bullying behaviors; family and socio-demographic context in which a family environment marked by cohesion and support promotes attitudes of non-violence and socioeconomic status are not directly related to find this type of episode; bullying characteristics, wherein said type of behavior is more verbal bullying; substance use and knowledge.

**Keywords:** Bullying. Factors. Contexts. Adolescents.

### FOOD PRESERVATION IN CONSTRUCTION WORK

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**Introduction:** Food safety is often neglected in unusual working environments. The Portuguese economic situation has led to many Portuguese returned to bring their meals in the workplace or lighter (midmorning/snack) or higher (lunch). In construction this problem is even more relevant by the lack of conditions for the conservation of Food Quality and Safety. The case study conducted relates to a construction work followed over 15 months and involved a total of 127 respondents workers.

**Methods:** A directed interview intended to assess whether workers take meals to work the meals that conservation methods during transport and if you ever felt your health because the meals taken. It was also measured at the time and place where the meals were stored until their consumption.

**Results:** The most relevant results 91.2% of respondents take at least one meal to work, 40% of transport services in isothermal bags, the other is no longer relevant with the same care, only 4.8% have reported having felt bad after consumption.

**Conclusions:** The workers in question were very little awake to store food, take it to work and leave them together for your belongings, clothes and tools, without any care for the preservation of food. a greater presence of supervision/counseling of workers to preserve need food quality and safety of their food.

**Keywords:** Food safety. Public health. Food preservation.

### THE VIEWS OF NURSING STUDENTS RELATED TO SPIRITUAL CARE IN WEST PART OF TURKEY

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**Objectives:** Identify students nurses' perception related to spirituality, know how students nurses' deal with their patients related to spirituality, and describe how students nurses' communicate with patients during spiritual care.

**Methods:** The descriptive study was carried out the views of nursing students related to spiritual care. Setting: This study was conducted in Mugla, which is located west part of Turkey. Participants: The sample of study was consisted of 307 nursing students (second year: 124, third year: 95, fourth year: 87) who has studied in University Health Sciences Faculty Nursing Department. Measurements: A questionnaire form was used for collecting data, which was formed by relevant literature. The data was collecting face to face methods in the class between April -May 2015.

**Results:** 40.4% of subjects were second class, 28.6% fourth class, 44.6% of them were aged 18-20, 67.8% of them female, 97.4% unmarried, 93.5% were Muslim and 0.7% were Christian. 29.0% of them lived Aegean region, most of them (79.2%) have nuclear type of family, 54.4% of them declared that income is lower than expense. Nursing students did not perform spiritual care activities in the clinics because of not having knowledge, did not have appropriate environment (6.4%), did not have time for practice (6.4%), did not communicate with patients (48.2%).

**Conclusions:** This study showed that nursing students have not sufficient knowledge related to spirituality and spiritual care in nursing care. And also they did not report spiritual care as responsibility of nurses. Spirituality and spiritual care topics should be placed and added in nursing curriculum.

**Keywords:** Nursing students. Spiritual care. Turkey.

## HEALTH LITERACY AS A SOCIAL DETERMINANT OF HEALTH IN PORTUGAL

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**Introduction:** In the last few years several studies have shown that exists a close relation between health literacy levels and health outcomes, utilization of health care services and health spending. The literature also shows that are the groups most vulnerable that as the lower levels of health literacy. Besides assessing the health literacy levels of the Portuguese population, this study aims to identify the profiles of people who have the lowest literacy levels.

**Methods:** This is a quantitative descriptive and explanatory cross-correlated study with a sample of 1,004 individuals aged  $\geq 16$  years. The HLS-EU-PT has been applied throughout the country, including the autonomous regions. Data collection was conducted by personal interview.

**Results:** In Portugal 61% of the surveyed population has general health literacy level problematic or inadequate. Concerning the healthcare dimension, only 44.2% have a sufficient or excellent level of health literacy. In terms of disease prevention, only 45% of respondents reveal a sufficient or excellent level of health literacy. In health promotion dimension about 60.2% of the auscultated population has a health literacy level problematic or inappropriate. In four dimensions analyzed, it was found that the greater the age, the lower the level of health literacy. We found the inverse trend when we analyzed the education, the higher the education, the greater the level of literacy health. Concerning situation regarding employment, there are the unemployed, pensioners and workers in part-time who have the lowest health literacy levels.

**Conclusions:** Concerning the impact of health literacy in health indicators and regarding these results, it is urgent to design a national health literacy policy for these most vulnerable groups.

**Keywords:** Health literacy. Health promotion. Vulnerable group.

## EDUCATION FOR HEALTH: PROGRAM EVALUATION SME-ESA TO PROMOTE WELL - BEING STUDENT ANGOLAN

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**Introduction:** For success in higher education is important to develop appropriate methods of study and management of academic life.

**Objectives:** To evaluate the results of an intervention program on study skills promoting student personnel wellness.

**Methods:** Longitudinal study of quasi-experimental, with a sample of 32 Angolan subject is an experimental group (EG) and control (CG). There were three stages of evaluation of the training program: pre-test, post-test and follow-up. The instrument used was the study of methods Skills Scale (ECME-ES) with Likert scale.

**Results:** ECME ES-scale consists of six subscales compared the two groups showed improvements: Time Management in the pre - GE test (39%)/CG (37%); post - GE test (54%)/CG (44%); Understanding in pre - test GE (39%)/GC (41%); post - GE test (41%)/CG (45%); Daily behavior in pre - GE test (84%)/CG (47); post - GE test (70%)/CG (34%); Evaluation in pre - GE test (60%)/CG (36%); post - GE test (39%)/CG (22%); Procrastination in pre - test GE (51%)/GC (64%); post - GE test (54%)/CG (59%) and Motivation in pre - GE test (51%)/CG (56%); post - GE test (40%)/CG (30%). These improvements continued evident in the follow-up. In addition, the data indicated that in GE there were also developments in the perception of the students' well-being.

**Conclusions:** The effectiveness of the program proved to be an asset in the initial training of students. Refer some implications for health education of students and strategies that teachers should use to promote the success and well-being of students.

**Keywords:** Program evaluation. Health education. Wellness.

## GESTATIONAL AGE AND BIRTH WEIGHT: INFLUENCE OF EATING PATTERNS OF THE PREGNANT

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**Introduction:** In pregnancy, an inadequate supply of nutrients is predictive of a risk pregnancy, with increased incidence of preterm birth and restricted fetal growth, as well as risk of maternal morbidity and mortality.

**Objectives:** To analyze the influence of dietary habits on gestational age and newborn weight.

**Methods:** Quantitative, descriptive analytic-correlational and cross-sectional study, inserted in a funded project (MISIJ, 2008-2013) with a non-probabilistic sample of 1,424 women from various regions of Portugal, average age 29.74 years old. (SD = 5.26). We used a questionnaire to obtain demographic and obstetric characteristics and gestational weight gain was obtained according to the Institute of Medicine (2009) recommendations.

**Results:** The average weight gain was 11.81 Kg with weight gain above recommended in 24.2%. Had term newborns 87.2% and 88.2% with appropriate weight for gestational age. Most of pregnant women (58.42%) classified their dietary patterns as little or even unhealthy, 90.81% have breakfast often or always, 56.44% eat a morning snack, 93.92% have lunch; 71.78% have an afternoon snack, 95.26% have dinner and 58.27% never or rarely have supper. Mostly states doing little attempt in choosing foods according to their nutritional characteristics. It was found that breakfast, morning snack, lunch, afternoon snack and dinner influenced the gestational age of the baby, while the birth weight was influenced by having morning snack, lunch and supper ( $p < 0.05$ ). Nutritional kind of food does not influence the gestational age and weight of the newborn at birth.

**Conclusions:** The evidence emphasizes the need to invest in raising awareness of pregnant/couple in healthy dietary habits, promoting the harmonious development of the pregnancy and the fetus/newborn.

**Keywords:** Diet. Pregnancy. Gestational age. Birth weight.

## ROLE OF PROFESSIONALS IN PROMOTING HEALTH LITERACY OF ELDERLY PEOPLE

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**Introduction:** The role of health professionals in promoting health literacy or health literacy limitation has been slowly explored (Nielsen-Bohlman, Panzer, & Kindig, 2004). These studies generally allow to realize that the problem of literacy in the population's health in general and the elderly in particular, will only be increased if the need and role of both - public and professional - is assessed interdependently. In this sense it is important to understand how the professionals understand their role and their responsibilities in this matter, for, in sequence to enhance health literacy.

**Objectives:** Identify the role of professionals in promoting literacy in the health of older people.

**Methods:** For this qualitative exploratory study, four focus group were conducted with a sample of 26 social and health professionals. Discussions about the role and responsibilities of professionals in the health literacy promotion of elderly were analyzed using thematic analysis.

**Results:** From this study emerged three categories: (1) mediation, (2), education, and (3) supportive relationship.

**Conclusions:** For literacy in health of older people is enhanced, it is necessary for professionals to develop various roles. Facilitate access to health services, report on the health resources available to mediate communication between the doctor and the elderly, help in reading and interpretation of health information are some of the valued aspects. Health literacy/education is, in the view of this group, conducting awareness and training activities in order to empower people, to make them more critical and autonomous in the decisions to be taken regarding their clinical situation, their health, their treatment.

**Keywords:** Health literacy. Role. Professionals. Elderly.

## THE INFLUENCE OF SOCIODEMOGRAPHIC AND OBSTETRICAL FACTORS AT GESTACIONAL WEIGHT GAIN

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**Introduction:** The weight gain during pregnancy can be determined by socio-demographic and obstetric factors as reference several studies, and that the association between obesity -pregnancy increases the incidence of maternal and fetal complications as literature review.

**Objectives:** To analyze the relationship between gestational weight gain and socio-demographic variables and obstetric.

**Methods:** Quantitative, descriptive, analytic-correlational and cross-sectional study, inserted in a funded project (MISIJ, 2008-2013) with a non-probabilistic sample of 1,424 women from various regions of Portugal, average age 29.74 years old. (SD = 5.26). We used a questionnaire to obtained demographic and obstetric characteristics and gestational weight gain was obtained according to the Institute of Medicine (2009) recommendations.

**Results:** Most of the participants had between 19 and 35 years old when she got pregnant, reside in an urban zone, are married, with the secondary/technology and employed. Most had gestational diabetes and gestational weight gain, was on average of 11.81 pounds. Most had a weight gain below the recommended. Schooling, resi-

dence, maternal age and gestational diabetes are variables that influence the gestational weight gain.

**Conclusions:** Faced with a worldwide epidemic of obesity, as well as an increased weight gain during pregnancy, it is imperative that the maternal health nurses develop a plan of early and effective interventions before and during pregnancy in order to reduce maternal and fetal, present and future risks.

**Keywords:** Gestational weight gain. Obesity. Pregnancy.

## NURSES' BEHAVIOR TOWARDS CLINICAL ALARMS IN INTENSIVE CARE UNITS

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**Introduction:** The critical patient depends on equipment that produces different types of alarms, allowing early identification of changes in their clinical condition. The complexity of alarms management can be one of the explanations for the occurrence of adverse events, which justifies the importance of reflecting on nursing practice concerning the theme of clinical alarms monitoring.

**Objectives:** Identify the nurses' behaviors towards clinical alarms in intensive care units.

**Methods:** Literature review; "Clinical alarms", "Nurs\*", "Critical care" PI[C]OD. Ten databases were selected, between 2004-2016, 6 articles were included for analysis.

**Results:** It is recognized that nurses' behavior toward clinical alarms is not linear and range from: changing the parameters at the beginning of each shift, to ignoring a large majority of them. There isn't a collective way of action. Each individual has its own dynamics and knowledge, acting in accordance with them. Factors such as the number of team members, the number of false alarms and professional stress are also very important.

**Conclusions:** The hemodynamic monitoring has as its primary goal the early alert changes in the patient's clinical state. Healthcare professionals are aware of the bipolarity of clinical alarms. If on one hand these can be allies to their performance, on another there can be constraints to their care giving. However, excessive false alarms can lead not only to desensitization of professionals but also to the interruption of work dynamic, endangering patient safety.

**Keywords:** Clinical alarms. Safety. Nurse interventions.

## CONFLICT RESOLUTION STRATEGIES: INFLUENCE OF ORGANIZATIONAL AND PROFESSIONAL COMMITMENT NURSES

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**Introduction:** The changes in the health area and the set of structural changes in the nursing profession and career interfere in the dynamics and stability of the future of the nurses.

**Objectives:** To study the influence of organizational and professional commitment of the nurses in the strategies of conflict resolution.

**Methods:** This is a quantitative, transversal and non-experimental research, following a descriptive-correlational way. Data were obtained by applying a questionnaire to nurses that work on different types of Primary Health Care Units. As measuring instruments we used three scales that grouped a total of nine subscales used to evaluate: the organizational commitment, the professional commitment and the strategies of conflict resolution.

**Results:** The majority of nurses present moderate scores of organizational and professional commitment with higher affective commitment to the normative commitment or instrumental commitment and feel that nursing is an interesting and challenging profession, but personal and social perception of nursing relevance is moderately weak. Nurses adopt the domination conflict resolution strategies and accommodation over the head and less integrative strategies and commitment. With subordinates more nurses adopt the avoidance strategy. When the conflictual situation arises with colleagues more endow the integrative strategies and commitment and less domination strategy. The organizational and professional commitment is significantly associated with some solving strategies conflict adopted by nurses as the conflictual situation arises with the boss, with subordinates or colleagues. Some dimensions of organizational commitment and professional foretell to significantly shape the adoption of conflict resolution strategy adopted.

**Keywords:** Organizational/professional commitment. Conflict.

### PALLIATIVE CARE RESEARCH: USING THE DELPHI METHOD

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**Introduction:** the increasingly complex challenges in the context of palliative care result from the growing aging population, the need to develop care in a community context and the social changes that reached Portugal in the last decade. The interest to understand the applicability of a recent research tool, as the Delphi panel, in studies in the field of palliative care results on this research.

**Objectives:** To understand the application of the Delphi method for research in palliative care.

**Methods:** We held an integrative literature review using adequate descriptors for this theme and considered studies available at EBSCO research.

**Results:** Our initial search produced 26 results, which were reduced to 8 articles after applying our methodological elements. The Delphi method was used for purposes of defining research indicators worldwide, in the definition of the best care for patients and in the common point of these studies, in addition to the intention to create new data in the understanding and development of the practice of care is, in fact, the use of this research tool for the management of a high number of data from geographically distant points.

**Conclusions:** Literature allows us consider the earlier use of the Delphi method in palliative research; no data found in the Portuguese reality. This method has great utility in the systematization, organization and evaluation of the contexts and care practices. Record the favorable use in groups of diverse social contexts, geographically distant, namely, the creation of quality of care indicators in different areas such as: dementia, depression or pediatrics. It reinforces the importance of the development of this resource in the context of palliative care.

**Keywords:** Delphi study. Palliative care.

### PRISON AND HEALTH OF WOMEN, WHEN MATERNITY LEAVE COINCIDES WITH IMPRISONMENT. RESULTS OF A STUDY CONDUCTED IN PRISONS

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**Introduction:** The legal situation of imprisonment, determines implicitly sanctioning the freedom of movement and provision, to any

of us, Humans. Paradoxically, the protection of health, as an inalienable right of the Human condition requires special adjustment to the legal situation of imprisonment. Moreover, particularly when the imprisonment concerns women, will also often affect the lives of children, generated and born, even though the mothers remain secluded. In this special circumstance one moves to realize that the role of clinical discipline, may adduce within the walls of the prison, not to put in turmoil, the Universal Right of all men and all women, to health care.

**Objectives:** Our exploratory study seeks to measure, using a statistical analysis, the availability of clinical services within a penitentiary institution, of a populational sample of incarcerated women who undertake a maternity project, starting inside the prison.

**Methods:** In developing our research study, we adopted an imminently exploratory and descriptive methodology. Revealed, on the one hand, in an approach through interviews with several individuals who have a connection to our research question, especially prisoners, technicians, guards, medical staff, and secondly by analyzing the individual clinical process of service users clinical PE. The variables that are analyzed undergo a quantitative treatment, looking at the data collected by a statistical approach, mitigated by a qualitative approach to the natural environment of our sample, using the gathered speeches.

**Conclusions:** Our research took place in the Prison for Women in Santa Cruz do Bispo, out of 484 women who lived there in 2015to whom we question how is the intramural health.

**Keywords:** Prison. Maternity. Gender. Health. Human rights.

### THE NURSING HOMES IN THE NORTHERN REGION OF PORTUGAL

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**Introduction:** In Portugal about 74,000 persons live in nursing homes. In the North there are 527 nursing homes with 17,527 users. The nursing homes actually designated Residential Structures for Older Persons (ERPI) replaces the family in care for the elderly. Provide housing, food, health care, hygiene and comfort, influencing the lifestyle, health and well-being of its residents.

**Objectives:** Characterize the offer of nursing homes relative to residential building, food, hygiene and clothing, elimination, exercise and leisure activities, health care and human resources.

**Methods:** Cross-sectional, descriptive study of quantitative profile with a sample of 12 nursing homes of the 5 districts of the North Health Regional Administration. The instrument "Characterization of the nursing home" was built for that purpose by the researcher.

**Results:** All ERPI are social institutions with capacity for 80 to 300 older persons and an occupancy rate ranging between 83% and 100%. Only 4 have exterior accessibility for people with disabilities. The number of meals is between 4 and 5. The direct support employees are responsible for hygiene and clothing. Five keep record of the dependents defecations. None has implemented a plan to promote urinary continence. All offer exercise classes and leisure activities beyond television. The organization and delivery of health care varies greatly. The preparation and administration of medication are not performed by nurses who are in institutions in very variable numbers and times.

**Conclusions:** The growing needs in health care of institutionalized older persons require more qualified human resources, especially nurses in sufficient/adequate numbers.

**Keywords:** Nursing homes. Older persons. Institutionalization.

## THERAPEUTIC REGIMEN MANAGEMENT IN NURSING HOMES

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**Introduction:** Increased life expectancy associated with the improvement of living conditions, technological development and improvement of health care, as well as the decrease in birth rates, results in a double population aging. This set of factors, which is also associated with an increased incidence and prevalence of chronic diseases tend to worsen in the coming years and its impact on financial, social and health systems has put added problems of resource management and sustainability of nursing homes.

**Objectives:** To identify chronic diseases and characterize the therapeutic regimen of older people in nursing homes; Identify differences in the therapeutic regimen between nursing homes.

**Methods:** Cross-sectional study, descriptive correlational, held in the nursing homes of the Northern Health Regional Administration, area of influence. This is a sample of 1,131 older persons and 12 nursing homes, representative of the population and proportional by district considering a 95% confidence interval and a 3% margin of error.

**Results:** The elderly are aged between 65 and 102 years, mean 83.7 years. Majority are women, widows with low education. Most have relevant medical history, 80.6%, and chronic diseases, 97.1%. The complexity of the therapeutic regimen is on average 4.55 (SD = 1.80). Among the nursing homes there are significant differences in the variety of drugs, the number of doses, and the number of drugs to take as well as the complexity of the regimen.

**Conclusions:** The management of medication in nursing homes should receive special attention from nurses, because the older people's therapeutic regimen is complex and the risk of errors and adverse effects related to the preparation and administration of medication is high.

**Keywords:** Therapeutic regimen. Nursing homes.

## A MICROBIOLOGY STUDY OF THE SURGICAL SITE INFECTION, AT A HOSPITAL IN NORTHERN PORTUGAL

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**Introduction:** Surgical site infections (SSIs) remain a major clinical problem in terms of morbidity, mortality, time spent in hospital and overall direct and indirect costs.

**Objectives:** To measure the prevalence of the SSI, by type of surgery and microbiologically characterization, in adult patients undergoing surgery during 2015 at a public hospital in northern Portugal.

**Methods:** A prospective study, attended by 609 adult patients, undergoing surgery. The sociodemographic and clinical data of the population, as well as the surgical procedure and microbiological study were analyzed using Microsoft Access 2013.

**Results:** In the sample of 609 adults undergoing surgery, it was found that 62.89% of surgical wound were cleaned, 15.8% were clean-contaminated, 8.70% were contaminated and 9.36% infected. About 62.52% of the intervened patients had antibiotic prophylaxis prior to surgery. Out of all surgeries, 33.3% were laparoscopic. The percentage of SSI was 5.74%; In these positive cases, only 3.61% was identified the responsible bacteria. The urgent surgeries have

more infections when compared to the programmed ones. In colon surgery the number of infections was 60% after cholecystectomy (22.86%). In hernioplasty, infection occurred in only 2.86% of the patients. The most isolated bacteria was *Escherichia coli* with 59%, in which 30% are  $\beta$ -producing-lactamases of extended spectrum, followed by *Pseudomonas aeruginosa* (13.6%) and *Serratia marcescens* (13.6%). The mortality rate was 14.8%. *Pseudomonas aeruginosa* was isolated in 3 of 4 patients who died.

**Conclusions:** The most microorganisms belong to the group of Gram-negative and are usually linked to infections associated with health care.

**Keywords:** Surgical site infections. Type of surgery. Antibiotic resistance. Infectious agent.

## THE SPIRITUAL DIMENSION OF THE HOSPITALIZED CHRONICALLY ILL

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**Introduction:** Spirituality is a human characteristic often seen as the link between the loss of hope and the meeting of a new meaning for life. Spirituality and religion are considered by many authors as important resources that can help to overcome a crisis and suffering. As nurses we have the professional interest, moral and ethical to understand the spiritual dimension of hospitalized chronically ill, which will provide better care.

**Objectives:** Understand how the hospitalized chronically ill experiences spirituality and how this correlates with sociodemographic, family and clinical variables.

**Methods:** This is a triangulated descriptive correlational and cross-sectional study with a sample of 307 patients with chronic conditions admitted in surgical services, cardiology, gynaecology, internal medicine and outpatient department of a hospital in the central region of Portugal. Data were collected between January and June 2013 through a questionnaire that includes the APGAR family scale, and a Spirituality Scale.

**Results:** We found that most of the participants has a high "spirituality" ( $p = 0.001$ ). Age is positively correlated with spirituality and predicts 10.4% of the spiritual and religious beliefs. The highest levels of spirituality are significantly influenced by the perception of the absence of formal or informal support ( $p = 0.003$ ), unemployment ( $p = 0.000$ ), familiar functionality ( $p = 0.005$ ) and with a positive thinking about the disease that causes more suffering ( $p = 0.000$ ). On the other hand, participants with "academic titles" were those who have shown the lowest levels of spirituality ( $p = 0.005$ ).

**Conclusions:** The spiritual dimension of the hospitalized chronically ill proves to be highly present in their lives, and influenced by several factors.

**Keywords:** Nursing. Spirituality. Chronic disease.

WITHDRAWN ABSTRACT

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**NEGATIVE PRESSURE WOUND THERAPY VS MOIST WOUND HEALING THERAPY: A PHARMACOECONOMIC APPRAISAL**Rui Pereira<sup>a</sup>, Adriana Barbosa<sup>b</sup>, Ana Cláudia Costa<sup>c</sup>,  
Ângela Ferreira<sup>d</sup>, Ana Rita Rodrigues<sup>e</sup><sup>a</sup>*Universidade do Minho -Escola Superior de Enfermagem, Portugal;* <sup>b</sup>*Profissional liberal; Instituto de São José, Oliveira S. Mateus (IPSS), Portugal;* <sup>c</sup>*Fundação Casa do Paço, (Lar N. Sra das Precês), Airão S. João, Portugal;* <sup>d</sup>*ACES Cávado I, Braga, Portugal.*Contact details: [ruipereira@ese.uminho.pt](mailto:ruipereira@ese.uminho.pt)**Introduction:** The implementation of Negative-Pressure Wound Therapy (NPWT) in chronic wounds has raised concerns about the economic costs and respective clinical benefits. Pharmacoeconomics assessment are fundamental to decide therapeutic options based in the best available evidence.**Methods:** We developed a systematic literature review according with the Joanna Briggs Institute methodology in order to evaluate the cost-effectiveness, cost-benefit and cost-utility in the application of NPWT in chronic wounds vs Moist Wound Healing Therapy (MWHT). The selected studies were Cochrane systematic reviews, cohort studies, meta-analysis, randomized controlled trials and one probabilistic study. Their critical appraisal was conducted with the instruments PRISMA (Systematic Reviews and meta-analysis), CONSORT (Randomized Trials) and STROBE (Observational studies) according with the studies design.**Results:** NPWT high costs materials are offset by a decrease in the number of visits and minutes/treatment. Overall this means an inferior absorption of human resources, less total time of treatment and higher perceptions of comfort and quality of life for patients measured in Quality Adjusted Life Years (QALY's).**Conclusions:** NPWT demonstrates advantages at a pharmacoeconomic level compared to MWHT. Evidence-based care should consider the best evidence from research the available resources, clinical experience and training and the patient preferences. Critical search of evidences helps to take better and informed decisions with better outcomes to patients, professionals and the organizations.**Keywords:** Chronic wound. NPWT. MWHT. Pharmacoeconomics.**MOTIVATION FOR BREASTFEEDING: A MATTER OF SCHOOLARITY LEVEL?**Paula Nelas<sup>a</sup>, Carla Santos<sup>b</sup>, João Duarte<sup>a</sup>, Emilia Coutinho<sup>a</sup>,  
Cláudia Chaves<sup>a</sup>, Odete Amaral<sup>a</sup>, Manuela Ferreira<sup>a</sup>, Carla Cruz<sup>a</sup><sup>a</sup>*Instituto Politécnico de Viseu, Escola Superior de Saúde, CI&DETS, Portugal;* <sup>b</sup>*Centro Hospitalar Tondela Viseu, EPE, Portugal.*Contact details: [pnelas@gmail.com](mailto:pnelas@gmail.com)**Introduction:** The Age-Friendly Cities project was launched by the World Health Organization to address two contemporary issues of increasing relevance: urbanization and demographic ageing. The resulting Checklist of Essential Age-Friendly City Features, designed for a city's self-assessment, comprises eight areas of urban living associated with active ageing. Health and support services were considered a vital area to maintain health and independence in the community.**Objectives:** Assess the "age-friendliness" of Coimbra's community and health services; explore the relation between the perception of different dimensions of Coimbra's urban setting and Quality of Life (QoL).**Methods:** This quantitative and transversal study, included 215 elderly persons, aged between 60 and 90 years old (M = 71.03; SD = 6.97), residents of various Coimbra parishes. The sample is predominantly female (66%), married (56%), retired (86%) with a perception of sufficient health (46%). The instruments used were

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a socio-demographic questionnaire, an adaptation of the Checklist of Essential Features of Age-Friendly Cities (WHO, 2007) and the WHOQOL-Bref (Canavarrero et al., 2007).

**Results:** The “Community and Health Services” domain obtained the highest satisfaction rates (44.5%) among the eight topics included in the Checklist. This domain had the highest correlation coefficient scores with General QoL ( $p < 0.01$ ), Psychological QoL ( $p < 0.05$ ) and Environment QoL ( $p < 0.01$ ).

**Conclusions:** The satisfaction with “Community and Health Services” flags a positive aspect of the city that can promote active ageing. However, it should be highlighted that additional improvements in this domain could translate into a further increase of QoL.

**Keywords:** Coimbra. Quality of life. Age-friendly city. Health and Community Services.

### TRANSCULTURAL NURSING CARE: APPROACH TO GIGER & DAVIDHIZAR'S “ASSESSMENT” MODEL

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**Introduction:** The importance of developing skills in order to the provide quality health care to diverse cultures is gaining high importance by many health professionals from various disciplines (Davidhizar, Bechtel and Giger, 1998, p.22), in this global society.

**State of the Art:** Giger & Davidhizar proposed six cultural phenomena fundamental to cultural understanding each individual - communication, time, space, biological variations, environmental control, and social organization. The metaparadigm includes: (1) transcultural nursing and culturally diverse nursing; (2) culturally competent care, (3) culturally unique individuals, (4) culturally sensitive environments and (5) health and health status based on culturally specific disease and wellbeing behaviours (Giger, 2013, p.5).

**New perspectives:** The “Assessment” model developed by Giger and Davidhizar provides a definition of concepts that meet the regulations of nursing practice in Portugal.

**Theoretical and practical implications:** In response to the need for a practical tool for assessing the cultural variables and their effects on health and disease behaviour, Giger and Davidhizar provide a comprehensive assessment model, in order to give culturally competent care.

**Conclusions:** The model provides a set of tools that allow a nursing assessment that takes into account the uniqueness of each individual, enabling the formulation of rigorous and culturally competent nursing diagnoses, compatible with the International Classification Nursing Practice (ICNP)®, as with the construction of indicators for the quality of nursing care proposed by the Portuguese Order of Nurses.

**Keywords:** Transcultural Nursing Care. ICNP. Quality.

### LIFE QUALITY AND THE WELLNESS OF VICTIMS OF DOMESTIC VIOLENCE. STUDY CASE OF THE CENTRO SOCIAL, RECREATIVO E CULTURAL DE VILAR DE MAÇADA

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This research aims to present an analysis on the absence of social responses that address the problem of domestic violence in Alijó. Our main goal is not only a theoretical approach about the issue of domestic violence, regional conditions in relation to domestic violence, but also present a study on the potentialities of Centro Social Recreativo e Cultural de Vilar de Maçada, our case study, can apply for funding of an emergency housing for victims of domestic vio-

lence. This paper is divided into three parts: theoretical framework and characterization of our social organization, according to an exploratory research, structuring a strategic plan of the organization, through field research, and as final result, to present a proposal for funding and implementation of an innovative social response, according to the underlying legislation to Portugal 2020. The sample is focused on the population of Alijó municipality. To conclude, it is important to make this local approach, because of the increasing number of cases not detected and reported. Thus, the quality of life is increased, reducing the incidence of violence in the family.

**Keywords:** 3<sup>rd</sup> Sector. Life quality. Strategic management. Social responses to domestic violence.

### EXPERIENCE OF THE TRANSITION TO THE MATERNAL ROLE OF WOMEN WITH PROBLEMS IN ADDITION TO PSYCHOACTIVE SUBSTANCES FOR THE FIRST CHILD OF LIFE YEAR

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**Introduction:** Watching a socially constructed idea of being a mother, women's life trajectories and their contexts, seem to determine feelings and normalizing representations of the transition to the maternal role, away in the design of the unique experience of the phenomenon of transition for the maternal role of every woman who experiences it.

**Objectives:** Understand the experience of the transition to the maternal role of women with problems in addition to psychoactive substances for the first child of life year.

**Methods:** Phenomenological and interpretative study, transverse and retrospective in relation to data collection. The participants were selected intentionally. 14 phenomenological interviews with an unstructured approach. We use procedural assumptions of Van Manen (1990) for data analysis. All the ethical principles were respected.

**Results:** If the possibility of achieving the maternal role gravitate transitionally for identity in being mothers, these women continue to feel guilt for a history of past life, feeling so need to cut with a past still very present. If the perception of the social stigma regarding the ability to be a mother is stressed, it is with a sense of pride and attachment to his own son, that these mothers feel and ability to care for their children.

**Conclusions:** The experience the transition to the maternal role of our participants constitute one of the most demanding and challenging lived phenomena, since determines by itself, a set of cognitive, behavioral and emotional responses, requiring simultaneously, the implementation effort adaptive and new standards of living.

**Keywords:** Women. Addition. Maternal role.

### AGEISM: MEDIA DISCOURSES DURING THE PORTUGUESE ELECTIONS

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**Introduction:** Ageing as a social problem has emerged recently as one of the main challenges facing contemporary societies. The rep-

representations that are shared socially contribute to the perception of a common reality to a particular group. As the public perception is related to mediated discourses, social representations of old age in the traditional media are very relevant to constructed meanings circulating in the public sphere. This paper aims to analyse online and offline mainstream media discourses on Ageism from 20<sup>th</sup> September 2015 to 2<sup>nd</sup> October 2015 in order to identify: i). social representations of old age; ii). discursively constructed.

**Methods:** The methodology is a comparative case study from 13<sup>th</sup> editions of daily newspaper Público and 10<sup>th</sup> editions of daily online newspaper Expresso Diário (only week days). We analysed 1,097 texts and we focus on 88 texts about the subject in order to identify the existence of dominant discourses and the visibility of the issue.

**Results:** The representational discourses of old age delivered by the mainstream media are similar to political discourses. However, the positive narratives on ageism are not enhancing. At least during the campaign for the elections, as expected. As the social representations of old age in media discourses are moulded by political discourses, it is important to highlight the economical tone of the shared narratives.

**Conclusions:** The findings reveal that mainstream media representations of old age are similar to political discourses. However, we also found evidence of misrepresentation of elderly within the campaign coverage and often refer just for the financial issue.

**Keywords:** Media. Social representations.

## IDENTIFICATION THE RISK OF PHYSIOLOGICAL DETERIORATION IN PREHOSPITAL

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**Introduction:** The Early Warning Score is a scoring system, developed to identify early detection of deterioration in critical ill patients, by categorizing a patient's severity of illness. Acute deterioration in these patients is most frequently proceeded by changes in physiological parameters, as well as deterioration of the level of consciousness.

**Objectives:** Characterize socio-demographic variables of patients in which the EWS was applied; determine the periodicity of the evaluation parameters in pre hospital; identify the basis of assessment of the scale parameters; determine the situations identified as risk physiological deterioration; evaluate the psychometric properties of the EWS scale in the Portuguese population.

**Methods:** Quantitative and descriptive-correlational study, in a sample of 214 patients who were involved in accidents and suffered from acute illness. These patients were assessed by nurses working in the pre-hospital context, after activation of the Immediate Life Support Ambulance, by INEM. The assessment instrument was the EWS.

**Results:** The outcomes indicate that there was a progressive reduction in scores, in terms of risk, indicating the occurrence of an early detection of clinical deterioration in all patients, leading to the importance of a more effective role in the pre-hospital environment. Although the alpha values range Cronbach are weak ( $\alpha = 0.462$ ), this instrument allowed to identify the physiological changes of critical patients and perform a special monitoring.

**Conclusions:** The progressive reduction of scores, in terms of risk over the three time points within the Early Warning Score, suggests that there was an early detection of clinical deterioration of patients, resulting in a more efficient intervention by nurses in the street.

**Keywords:** Prehospital. Risk of physiological deterioration.

## GAMMA KNIFE RADIOSURGERY IN THE TREATMENT OF ACOUSTIC NEUROMA AND HEARING

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**Introduction:** The acoustic neuroma is a benign tumor located at the level of the vestibulocochlear nerve. The treatment of this pathology is usually with surgery, allowing dissection of the nerve where the tumor is located. There is, however, a relatively new medical procedure called Gamma-Knife surgery, also known as stereotactic radiosurgery, which aims to improve the serious changes emerging in the post-treatment of conventional surgery, especially in terms of hearing capacity.

**Objectives:** The purpose of this study is to evaluate hearing preservation, based on a systematic review of the literature on audiological evaluation conducted in pre- and post-treatment in patients who have undergone Gamma-Knife radiosurgery, including the drug dose applied in the tumor and cochlea during the surgical procedure.

**Methods:** The systematic review of the literature was carried out in different electronic databases.

**Results:** After research, and after the inclusion criteria were defined, four criteria were selected to be used throughout the study process of hearing preservation in patients who used this therapy.

**Conclusions:** Hearing preservation is as better as the smaller the cochlear dose is used in the Gamma -Knife procedure. Audiological values are preserved by 90%, within the first two years of treatment (mean cochlear dose lower than 3 Gy) and by 80% in the first three years (mean cochlear dose lower than 6Gy).

**Keywords:** Acoustic neuroma. Hearing preservation. Gamma-knife.

## HEARING LOSS IN INFANTS WITH HYPERBILIRUBINEMIA

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**Introduction:** The neonatal hyperbilirubinemia manifests itself quite often in the early days after birth and is characterized by the appearance of yellow coloration on the baby's skin. For standard is a normal physiological phenomenon which doesn't cause major problems, however can be considered as pathological when there are very high levels ( $> 13$  mg/dl) of bilirubin on the first 24 hours of life, requiring treatment as phototherapy and/or exchange transfusion.

**Objectives:** This review article aimed to verify the existing variations in the Brainstem Auditory Evoked Potentials (BAEPs) and the Otoacoustic Emissions (OAEs) in infants with hyperbilirubinemia.

**Methods:** The search for the realization of this review was carried out in different electronic databases. After searching the articles that met the predefined inclusion criteria were selected.

**Results:** Were found 70 articles and were selected 3 that fulfilled predefined inclusion criteria. After systematic analysis of the articles was found a decrease in the amplitude of the OAEs in the frequencies of 2, 3 and 4KHz as well as an increase in the latency of wave V and the range I-V in diagnostic BAEPs and REFER in automatic BAEPs in infants with hyperbilirubinemia.

**Conclusions:** With this study we can conclude that there are changes in the results of the OEA in some frequencies and BAEPs, so it is important to have an early monitoring as well a treatment/intervention suitable to prevent future consequences in the overall development of children.

**Keywords:** Hearing loss. Babies. Hyperbilirubinemia.



## STUDY OF HORIZONTAL SEMICIRCULAR CANAL FOR KINETIC AND THERMAL STIMULATION

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**Introduction:** Impulsive rotation test (PRI) and the caloric test allows to study the horizontal semicircular canal (CSH). Although both study the same channel stimulate different frequencies. Caloric testing boosts low frequencies and rotation test high frequencies.

**Objectives:** To study the CSH behavior through the PRI and the caloric test in individuals with somatosensory system within normal limits.

**Methods:** The sample consisted of 29 subjects of both sexes, which were compared to the average of the maximum speed of the slow phase (VMFL) for both tests. The PRI values were reported for each spin individually by the average number of nystagmus, the average gain and average VMFL. Regarding caloric test were described the average frequency values and VMFL for each ear.

**Results:** In the PRI statistically significant differences were found in all parameters when compared to the average between the clockwise rotation and counterclockwise. The same happened in the caloric test where the results of the comparison left ear to the right ear are statistically significant. When comparing the mean of VMFL between both tests, there was also no statistically significant differences.

**Conclusions:** It was concluded that for a more complete study of the horizontal semicircular canal is fundamental to perform both tests (rotational and caloric), for the same behavior differs in different stimulation frequencies, and a test does not replace the other, but both are complementary.

**Keywords:** Rotational test. Caloric test. Semicircular canal.

## HEARING LOSS IN CHILDREN: FROM SUSPICION TO DIAGNOSIS

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**Introduction:** Children of preschool and school age are many times hearing impaired, asymptomatic in the eyes of parents and educators. The audiological evaluation of these children should be held as early as possible, minimizing the impact of deafness in their language development and subsequent school performance.

**Objectives:** The aim of this study is to perform audiological evaluation of children referred by medical Pediatric from Health Center S. Martinho do Bispo - Coimbra during the period between November 2011 and December 2015.

**Methods:** We studied 238 children, between the ages of 2 and 14 years, and we performed an audiological evaluation that consisted in otoscopy, impedance, otoacoustic emissions, pure tone audiometry and speech audiometry.

**Results:** The results show tympanogram type B and C2 in 90 children (37.8%) in the left ear and 100 children (42%) in the right ear. We detected that 50 children (21%) did not have normal hearing in left ear and 56 (23.5%) on the right ear, mostly in children between 2 and 5 years. In total we found that 44.5% of the children had abnormal audiological tests, reinforcing the importance of early auditory assessment.

**Conclusions:** Cooperation between the ESTESCoimbra and the health center enables rapid referral of children which substantially reduces the time between the suspicion of deafness and diagnosis.

**Keywords:** Hearing loss. Children. Early diagnosis.

## LAUGHTER THERAPY EFFECTS ON THE SENSE OF HUMOR AND HAPPINESS IN HEALTH PROFESSIONALS

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**Introduction:** The laughter therapy is a psychotherapeutic technique that produces mental, physical and emotional benefits through laughter. This therapy helps to improve self-esteem and personal satisfaction.

**Objectives:** Check with sociodemographic and professional variables influence the mood and happiness of health professionals; determine the level of humor and happiness from the first to the second laughter therapy session.

**Methods:** Quantitative study, cross-sectional, descriptive and correlational, consisting of 52 health professionals working in the Cardiology Department of Hospital Tondela-Viseu- EPE. Two sessions were planned on the theme of laughter therapy, with an interval of one month, having been asked participants to complete the data collection instrument at the beginning and end of each session, in order to make a comparative study between the different moments. The data collection instrument contains a sociodemographic questionnaire, the Multidimensional Scale of Sense of Humour (MSHS) and the Scale About Happiness (Barros, 2001).

**Results:** sample with an average age of 40 years (SD = 9.567), with a predominance of nurses (63.5%). Sex has interfered with the sense of humor of health professionals in the production and social use of humor ( $p = .004$ ). The average of humor before the first laughter therapy session was 87.00 (SD = 8.94). After the second session, the mood of professionals rose to 91.11 (SD = 11.11).

**Conclusions:** Verified gains in the sense of humor of health professionals, reinforcing the assumption that laughter therapy sessions provide a change in the emotional state, making the most happy and optimistic people.

**Keywords:** Humor. Laughter therapy. Health professionals.

## TRAINING HEALTH PROFESSIONALS TO APPLY PARTICIPATORY RESEARCH

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Call for new approaches in health professional's education, transforms systems and encourages the move away to initiatives that foster community engagement and citizenship. But to support and advocate community's involvement for this transformational change in health professional's education is imperative to encourage institutions to raise and enhance the relational activity, the planning and interaction between education, health, citizenship and other sectors. We think that increasing Participatory Health Research (PHR) training fits the objective, and is a great challenge for health education and health care organizations. The goal of PHR is to maximize the participation of those whose life or work is the subject of the research in all stages of the process, including the research design, the selection of appropriate methods for data collection and analysis, research implementation, results interpretation and dissemination of the findings. We describe how to build capacity in health professionals to apply participatory research. Since 2002, we develop PHR training: 1) PHR projects in extracurricular activities of peer education; 2) PHR approach in a compulsory and cross-discipline at a nursing program in Cape Verde; 3) PHR course for health professionals in Portugal. The experience shows evidence of good practices by demonstrating that pilot experiences could support the social change through deliver people-centred services, responsiveness and inclusion in health care. A transforma-

tive learning, based on the continual cycle of “look, reflect, act”, underpins the dynamics of developing a connected and cooperative knowledge. Health professionals who participate in PHR training are globally competent and locally relevant, able to serve communities in an effective manner.

**Keywords:** Participatory Health Research. Health and citizenship. Health professional's education.

### DIFFERENCES BETWEEN IMAGERY ABILITY (EXTERNAL VISUAL, INTERNAL VISUAL AND KINESTHETIC) IN YOUNG SOCCER PLAYERS

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**Introduction:** Imagery is a cognitive process that can play an important role in planning and execution of movements or actions. The ability to control and generate mental images although present in all individuals varies from subject to subject. Therefore, it is important to understand that the imagery ability is a skill that can be modified with training and experimentation, not a fixed aptitude.

**Objectives:** The aim of this study was compare the three types of imagery ability (Kinesthetic, Internal Visual and External Visual) in young soccer practitioners.

**Methods:** This is a transversal study with a non-probability convenience sample of fifty three soccer players, with a mean age of 15 (SD = 1.2). It was applied the Movement Imagery Questionnaire - 3 Portuguese Version - MIQ 3 (Mendes et al., 2016) to quantify the different three types of imagery ability (Kinesthetic, Internal Visual and External Visual). For the analysis of the results, descriptive and inferential statistics were used. The Kolmogorov-Smirnov test was applied to the normality distribution of data and Mann-Whitney to independent samples.

**Results:** The results showed that were statistical differences between the Internal Visual with Kinesthetic ability and External Visual with Kinesthetic ability ( $p \leq 0.05$ ). There were not found statistical differences between the Internal and External Visual ability ( $p > 0.05$ ) but the External Visual ability showed a higher score in the mean.

**Conclusions:** These results suggest that the External Visual ability is the best intervention method to work with mental practice in young soccer practitioners, in line with other studies which relates the Imagery with learning execution abilities in open motor skills in sport, where the temporal notion is valued (White & Hardy, 1995).

**Keywords:** Imagery. MIQ-3 Portuguese Version. Soccer.

### PREHOSPITAL THERAPEUTIC HYPOTHERMIA: INFLUENCE IN GOOD NEUROLOGICAL OUTCOME AT HOSPITAL DISCHARGE

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**Introduction:** Therapeutic hypothermia improves neurological outcomes after Out-of-Hospital Cardiac Arrest (OHCA). Its use has been recommended in the victims with Return of Spontaneous Circulation (ROSC).

**Objectives:** The aim of this study was to know the effect of Pre-hospital Therapeutic Hypothermia (PHTH) on the neurological outcomes in victims with OHCA.

**Methods:** We conducted a Systematic Review of Literature (SRL) on studies that evaluated the effect of HTPH in victims with OHCA and also performed a research (in PUBMED, EBSCO and Google Scholar) in studies published between January 2007 and 31 May 2013. The studies found were then assessed taking into account the previously established inclusion criteria. The quality of the studies included was assessed by two reviewers using the critical evaluation scale of a study describing a prospective, randomized, controlled clinical trial (RCT) by Carneiro (2008). The meta-analysis was performed using the Mantel-Haenszel method, using the effect of random models.

**Results:** Five RCT's that respect the inclusion criteria were used, involving 759 participants from which 378 were selected from the prehospital hypothermia group and 381 from the control group. The studies show that there are not significant differences observed with respect to the neurological outcomes favorable at discharge (RR = 0.98; 95% CI = 0.79 to 1.20;  $p = 0.83$ ).

**Conclusions:** Despite SRL show that PHTH has no influence on the neurological outcome at hospital discharge, the scientific evidence points to an improvement in neurologic outcomes when kept at normothermia, so suggests a prompt reference to health units where can be made a control of temperature in the victims with ROSC in prehospital.

**Keywords:** Therapeutic hypothermia. Cardiac arrest. Prehospital.

### THE NONINVASIVE VENTILATION IN PREHOSPITAL: INFLUENCE IN MORTALITY

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**Introduction:** The noninvasive ventilation (NIV) is considered one of the pillars in the treatment of victims with acute pulmonary edema (APE).

**Objectives:** The aim of this study consisted in determine the effectiveness of the application of NIV in victims with APE, in the Prehospital (PH) context in what concerns the outcomes of the mortality.

**Methods:** We conducted a systematic review of literature (SRL) on studies that assessed the effectiveness of NIV application in APE in the PH context. After research (in PUBMED, EBSCO, Google Scholar and SciELO) in studies published between January 2007 and 31 December 2013. The studies found were subjected to analysis, taking into account the previously established inclusion criteria. The quality of the studies included was assessed by two reviewers using the critical evaluation scale of a study describing a prospective, randomized, controlled clinical trial (RCT) by Carneiro (2008). In the meta-analysis was performed using the Mantel-Haenszel method, using the effect of random models.

**Results:** From two RCT's that involved 329 participants were selected 167 of the NIV and 162 of the control group. The studies show in what concerns the mortality, the use of NIV associated with the standard medical treatment in PH provides clinically relevant advantage compared to the application in exclusive of standard medical treatment, but without statistical power (RR = 0.85; 95%CI = 0.43-1.69,  $p = 0.65$ ).

**Conclusions:** The use of NIV in the treatment of patients with APE in PH compared to the exclusive application of standard medical treatment presents benefits in the mortality rate, so we suggest that NIV should be implemented in victims with APE in PH.

**Keywords:** Noninvasive ventilation. Prehospital.

### PERCEIVED BARRIERS TO HEALTHY EATING BY UNIVERSITY EMPLOYEES' AT THE WORKPLACE

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**Introduction:** Several studies concluded that individuals who identified a higher number of barriers for healthy eating correspond to those that have worse eating habits.

**Objectives:** Identify the perceived barriers for healthy eating at the workplace by University of Porto employees'.

**Methods:** A cross sectional observational study was conducted at the University of Porto. Participants were randomly selected. Data was obtained through the application of a self-administrated questionnaire, including questions about socio-demographic data and about barriers for healthy eating at the workplace. Data analysis was performed using the SPSS®.

**Results:** The majority of respondents were women (65.5%). Only 23.1% of respondents classified their diet as unhealthy at the workplace. Barriers for having a healthy diet pointed out more frequently were work commitments/lack of time, lack of healthy options, inability to prepare meals and lack of knowledge about nutrition. Men identified lack of knowledge more frequently than women ( $p = 0.028$ ). It appears that food price is a prohibitive factor for having a healthy diet, essentially for non-teachers respondents ( $p = 0.019$ ). The lack of areas to prepare and storage food at the workplace also seems to be more important for non-teachers ( $p = 0.002$ ). The non-existence of healthy options for meals is also identified as inhibitory factor, with differences between teachers and non-teachers ( $p = 0.013$ ). Respondents' educational level influence their identification of the price as a determinant for having a healthy diet ( $p = 0.001$ ).

**Conclusions:** More studies are necessary in order to realize in what extent these barriers affect choices, contributing for the development of new intervention strategies to the promotion of healthy habits.

**Keywords:** Perceived barriers. Workers. Healthy eating.

### EXPERIENTIAL AVOIDANCE IN ELITE ATHLETES: MBSR-SP PROGRAM FOR OPTIMIZING PSYCHOLOGICAL FLEXIBILITY

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**Introduction:** The difference between success and failure has become increasingly smaller in sport. A "third wave" approach in sport psychology, is been recently used for the first time to increase the performance level of the elite athletes with very well defined programs (Birrer et al, 2012). Study findings yielded that high-level athletes meta-awareness and effective refocusing training by mindfulness based programs were identified as important factors on performance training, psychology flexibility and competition (Solé, Carraça, Palmi, & Serpa, 2014).

**Methods:** 57 male participants - elite soccer players (2nd Portuguese league) were splitted in two groups ( $n = 28$  experimental group and  $n = 29$  control group) to MBSR-SP program. Standardized instruments were used. Changes in psychological inflexibility (pre and post-test) were measured using Acceptance and Action Questionnaire II (Bond et al., 2007; Portuguese version of Pinto-Gouveia

& Gregório, 2007). The instrument in our study revealed good internal consistency ( $\alpha = 0.878$ ).

**Results:** The athletes participating in the MBSR-SP program significantly decrease the attributes related to experiential avoidance/psychology inflexibility ( $t = 10.58$ ,  $p = 0.00$ ) than control group.

**Conclusions:** Mindfulness training as a process to direct attention increases the sense of psychological flexibility, that is hopeful for high performance demands (Birrer, Rothlin, & Morgan, 2012). Further research needs to explore deeply the mechanisms through which mindfulness may influence psychological flexibility and performance and larger samples.

**Keywords:** Mindfulness. Experiential avoidance. Sports.

### SURGICAL SITE INFECTION IN COLORECTAL SURGERY

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**Introduction:** Surgical Site Infection is one of the most common infection associated with health care, but can also be the most preventable situation. Surgical site infection in patients undergoing colorectal surgery varies according to the literature, from 3.5 to 21.3%, being identified as the highest rate of infection among elective procedures and emergency.

**Objectives:** To identify and characterize the occurrence of surgical site infection in patients undergoing colorectal surgery at a hospital in northern Portugal.

**Methods:** A prospective study in a hospital in the north of Portugal in 2015, patients admitted to the surgical service who underwent colorectal surgery. Patients were selected more than 24 hours of admission, obtaining a sample of 102 participants. The characterization of the patient and the surgery was done using a search in the first 24 hours after surgery and the registration of the infection at the time of occurrence and 30 days after the intervention.

**Results:** 102 participants, 67 (65.7%) were male with a mean age of 71.92 years (37-93 years) and 40.2% underwent emergency surgery. There was a prevalence of surgical site infection in 21 patients (20.6%). Among these 15 were male (71.4%) with mean age of 72.24 years. They were hospitalized on average 22 days, with an average of 19 days of hospitalization after surgery. Escherichia-coli was the microorganism most frequently isolated in culture studies with 13 (60.0%) cases of surgical site infection and organ/space was the main site identified with infection - 38.1%.

**Conclusions:** The prevalence of surgical site infection was 5.1% and Escherichia coli most common etiologic agent. It is suggested that other studies can analyze the associated factors with this type of infection.

**Keywords:** Surgical site infection. Colorectal surgery.

### NURSING IN CONTEMPORARY BRAZIL: FROM THE EXPOSED MODEL TO THE MODEL IN USE

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**Introduction:** Nursing education in Brazil has evolved to break paradigms in the practice of teaching with possibilities of improving the quality of teaching-learning process and of nurses' care practices.

**Objectives:** To identify the schools of thought/theories/models exposed during the nursing degree course; to question about the schools of thought/theories/models used in the nursing practice and their modernity.

**Methods:** Exploratory-descriptive and transversal nature study, conducted on a sample of 61 participants; 85.2% women, aged between 21 and 39 years old (91%), mostly from the Faculty CES-MAC Hinterland (82%). The collection of data was supported by the Questionnaire Cunha & Fernandes (2014).

**Results:** The innovative paradigms (Innovative Paradigm in teaching with progressive approach and research) were the most frequently quoted as the dominant ones during the nursing training (22.9%) and practice (24.6%), followed by a traditional paradigm with 21.3% and 18%, correspondingly. The schools of nursing thought more quoted were the one of needs, with 69.3% vs 50.8% respectively. The most mentioned theories were the ones developed by Florence Nightingale (41% vs 31.1%), Wanda de Aguiar (27.9% vs 19.7%) and Dorothea Orem (24.6% vs 18%). The most quoted teaching method used in the academy was the expository one (37.7%), the inclusion of simulated practice in nursing training was suggested by 94.8% of nurses and 23% of them would opt for a specialization in emergency room and urgency care.

**Conclusions:** The tendencies of the results suggest that the schools of thought/theories/models used in care nursing practice are in line with the discussion accomplished during the training course, carrying out challenges to the nursing teaching academy and research in Brazil.

**Keywords:** Nursing. Paradigms. Teaching. Practice.

## STIGMA AND KNOWLEDGE PERCEPTION ABOUT MENTAL HEALTH IN HEALTH STUDENTS

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**Introduction:** Studies with higher education health students have high levels of stigma. Several authors report that increased levels of information and knowledge translates into lower levels of stigma, being the aspects most easily modifiable in this problem.

**Objectives:** This study aims to evaluate the relationship between stigma and the knowledge perception about mental health in health students of a Portuguese health college.

**Methods:** A quantitative, descriptive and correlational transversal study was carried out in a non-probabilistic convenience sample of 672 students of health courses. For collecting the data we used a auto fill questionnaire consisting of sociodemographic questions, the Portuguese version of Attribution Questionnaire (AQ 27) and a Likert scale from 0 (Poorly) to 5 (Excellent) to assess the knowledge perception of the respondent on mental health.

**Results:** Sample predominantly female (82.7%), aged between 17 and 56 years old. The level of mental health stigma is moderate (4.19; DP = 0.732). The level knowledge perception about mental health is low (2.63; DP = 0.813). Students with better knowledge perception are the speech therapy (2.96; DP = 0.762) and with a lower perception the Nursing (2.55, SD = 0.821) and physical therapy students (2.55; DP = 0.884), but it increases during the course (R = 0.165; p = 0.000). There are no statistically significant differences between sexes, increasing knowledge perception with age (R = 0.089; p = 0.023).

**Conclusions:** The results point to the need for reflection and adaptation of curricula and teaching methods in order to increase knowledge on mental health especially the nursing and physiotherapy students.

**Keywords:** Social stigma. Mental health. Students. Knowledge.

## EMOTIONAL INTELLIGENCE IN HEALTH STUDENTS: DETERMINANTS IN HIGHER EDUCATION

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**Introduction:** Students' emotional ability to perceive, use, understand and manage emotions, determines their learning process and future performance as health care professionals.

**Objectives:** Analyse the differences in emotional intelligence (EI) between genders and among five different health degrees; Correlate EI, age and health education level.

**Methods:** Cross-sectional correlational study, in a non-probabilistic sample of 672 Portuguese health students from Dietetics, Nursing, Physiotherapy, Speech Therapy, Occupational Therapy. We applied a sociodemographic questionnaire and Emotional Intelligence Scale (WLEIS-P). Students were mostly women (85,4%), single (93,3%), mean age of 21,16 (± 4,17).

**Results:** Students revealed good EI (M = 3.62; DP = 0.421). Globally there were no differences in EI between genders. However, women scored higher in "emotional appraisal of others" compared to men (p = 0.002). Men revealed higher "regulation of emotions (RE)" compared to women (p = 0.003). Speech Therapy Students showed lower EI, differently from Nursing (p = 0.001) and Physiotherapy (p = 0.041). They also scored lower in RE compared to all of the other degrees (p < 0.001), in emotional use compared to Dietetics, Nursing and Physiotherapy (p < 0.001); in Self-emotional appraisal compared to Physiotherapy (p = 0.007). Positive correlations were found between age and EI (p = 0.003), Self-emotional appraisal (p = 0.005) and use of emotions (p = 0.004) and between years of study in EI, self-emotional appraisal, and emotional use (p < 0.001).

**Conclusions:** Health students have EI that enables to deal with their emotions in health care contexts. Differences were found between men and women and EI tend to increase with age and years of study. Attention are needed to Speech therapy students to increase EI during their education.

**Keywords:** Emotional intelligence. Students. Mental health.

## INFORMED CONSENT - PRACTICE TO DUTY

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**Introduction:** The principle of informed consent first appeared in Nuremberg Tribunal (19/08/1947). This decision that came out was called "Nuremberg Code" and determined the standards of informed consent and unlawful coercion. Informed consent, free and clear, can be expressed in oral or written form and contains within it two inseparable ideas: the understanding and autonomy. The information should be provided in a clear and accessible language, based on state of the art and free of value judgments. Guideline No. 015/2013 of 10/03/2013 updated 11/04/2015 of DGS regulates the application of informed consents and internally, the USF Infante D. Henrique created the Procedure number PO01.PROC11.IT01 (Informed Consent) enhancing the same need. The right knowledge and proper application of the procedure corresponds to a good practice by all the doctors and nurses of the USF.

**Results:** After the evaluation of the check-list established to undertake the audit of the correct application of informed consent by the USF professionals, there were 6 conformities (despite two

with opportunity for improvement) and one non-conformity, such is the case of the correct registration of the application of informed consent, in the informatic process user, provided in PO01.PROC11.IT01. It corresponds to 85% of compliance, resulting in a consolidation phase.

**Conclusions:** The results enhance the need to remind the doctors and the nurses about the importance of applying the informed consent, but also that it is important to register on the informatic process, so that it can be audited.

**Keywords:** Informed consent. Cytology. Intrauterine device.

## NURSING INTERVENTION IN THE PROMOTION OF THE TRANSITION TO PARENTHOOD

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**Introduction:** The first child birth is an important milestone, remarkable event in the life of the parents characterized by a change, which requires a new family reorganization, redefinition of roles and parental tasks, meaning the limits to the outside world, particularly the family and the community. Fathers and mothers restructure and integrate new roles (Oliveira, 2012; Relvas, 2000). This process of transition to parenting is gradually awakening interest and the need for investment on the part of nursing, since the demand for health care in these areas is growing (Smith, 2008). The transitions are characterized by awareness, involvement, change, transition duration and critical events. The nursing intervention is based on the partnership with family, education process, contributing to training skills, independence and personal reorganization (Oliveira, 2012; Soares, 2008; Vieira, 2008).

**Objectives:** Understanding Parental response patterns in the exercise of parenting during the first year of life of the child.

**Methods:** Qualitative study, convenience sample. Participated in a semistructured interview with 20 parents of children between 6 and 12 months.

**Results:** Parents have to be very satisfied with the promotion of parenting, contributing to this result community resources, such as surveillance of pregnancy and childbirth preparation classes. Consider the active nurse element of the multidisciplinary team, in postpartum. Taking note of the nurse relationship with user and family, stands out for attention, availability, proximity, trust associated with the ongoing process of education.

**Conclusions:** The preparation at the level of knowledge and skills proved to be an asset to meet the parents perspective on parenting is experienced by developing congruent interventions, facilitating adaptation to new roles.

**Keywords:** Transition. Parenting. Nursing. Marital project.

## FUNDAMENTS OF THE ETHICAL ACTING IN UNIVERSITY STUDENTS

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**Introduction:** It is urgent that the superior Education in the health area develops in the students a pro-active ethical commitment

which is translated into the creation of socio-professional and rational and clarified socio-cultural values.

**Objectives:** Evaluate the ethical fundaments which support the morality of University students.

**Methods:** Descriptive study in cross section, performed in 345 students of ESSV/IPV, 80% female, average age of 20,82 years old. It was applied the “Questionário de Cidadania Ativa e Modo de Agir Ético” (CiAMAE) of Cunha (2015).

**Results:** The results were 74,8% of the students showed a positive/adequate ethical acting method; (being 45,8% adequate and 29% very adequate). In 25,2% the ethical acting method was inadequate. The morality of the student's actions centered mostly in individualism and it was based on the following ethical principles: 68,7% ethical subjectivism (69,1% men and 68,6% women); 56,5% Relativism (56,5% men and 56,7% women); 53,9% Deontological Ethics (Kant) (55,8% men and 47,0% women); 11,3% Subjectivism/Ethical Selfishness (7,4% men and 12,3% women).

**Conclusions:** It infers that the majority of the students don't have/don't use as criteria of morality of actions the impartial consideration of good. They mostly manifested to accept an ethical subjectivist perspective, which means that the good isn't considered as a values for everyone. Opposing, performing the ethical impartiality criteria would imply to consider the greater good, and choosing/adopting the universal point of view in which all and any rational and enlightened subject would choose for him/her or the others that universal greater good.

**Keywords:** Ethical principles. Acting. Students.

## UNCONVENTIONAL THERAPIES AND NURSING: DISCIPLINARY AND PROFESSIONAL COHERENCE

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**Introduction:** The use of unconventional therapies, for nurses, was reported by nursing students during clinical teaching. Disciplinary and professional coherence legitimated the practice of these therapies, from the perspective of nurses.

**Objectives:** To understand the process of integration of unconventional therapies in nursing practice, in the dimensions: identification of therapies in use; assigned meanings; strategies used; effectiveness evaluated by nurses and patients.

**Methods:** Grounded Theory was used, according to Kathy Charmaz. The main data collection techniques were intensive interview and participant observation. The participants were 15 nurses working in 9 public hospitals, district and central, placed in north, center and south of the country, and a team of 10 nurses and 17 users of a pain service, in a cancer hospital.

**Results:** Nurses use unconventional therapies of the environmental, manipulative, mental, cognitive, and energy ratio kind. The physical, social and regulatory environment affect the practice of these therapies; the action modes show the importance they attach to ethical aspects and the (re) combination of several techniques, which result in individualized care.

**Conclusions:** Nurses identify a sense of high level of conceptual and professional coherence of the unconventional therapies with nursing, considering that they considerably expand their repertoire of practice. The integration of these therapies in nursing contributes to the theoretical consolidation of discipline and autonomy of practice.

**Keywords:** Non-conventional therapies. Conceptual and practical coherence. Nursing.

## MUSCULOSKELETAL DISORDERS IN ADOLESCENTS: A GROWING PATHOLOGY

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**Introduction:** Musculoskeletal disorders in adolescents are at present a frequent complaint, with a tendency to evolve into chronicity causing great impact on the future health of individuals.

**Objectives:** This study aims to identify the prevalence of musculoskeletal disorders in adolescents and analyze their relationship to sociodemographic, anthropometric and circumstantial.

**Methods:** This is a non-experimental, cross-sectional, descriptive and correlational and quantitative character study, which involved 158 adolescents from two elementary schools in northern Portugal. For this purpose it built a questionnaire that includes sociodemographic, anthropometric and circumstantial. also includes the "Questionnaire Nordic Musculoskeletal" to assess musculoskeletal disorders.

**Results:** The data show that the majority (80.8%) of the adolescents reported musculoskeletal disorders in the last three months, mainly at the shoulders (27.8%), dorsal (25.3%), thigh/hip (25.3%), neck (23.4%) and lumbar (22.8%). There is still that musculoskeletal disorders are more prevalent in adolescent females, those who spend more time per day watching television, moving to school on foot or by bike and even those who perceive having problems Cheers.

**Conclusions:** Musculoskeletal disorders are in fact present in significant groups of adolescents, have a dynamic, multifaceted and multidimensional origins, which reinforces the relevance of a better understanding of the problem in different contexts, the importance of a preventive work and even their detection and early treatment.

**Keywords:** Adolescents. Musculoskeletal disorders. Pain. Backpack. School.

## SCIENCE 'S CONTRIBUTIONS ON THE STUDY OF ANXIETY AND DEPRESSION IN VISUAL IMPAIRMENT

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The researches on anxiety and depression regarding the grown-up population with visual deficiency (VD) are scarce in Portugal. The main purpose of this research was to study the VD association with the Anxiety and depression. The sample consisted of 208 people with VD aged from 18 to 73. The participants were invited through Higher Education Institutions, Rehabilitation Centres and Associations that took part in the VD. These were the used materials and resources: a Sociodemographic Questionnaire, the Hospital Anxiety-Depression Scale (HADS) and the Patient Health Questionnaire (PHQ-9). The results showed that there aren't significant differences in some sociodemographic variables (sex, age and schooling level) at the emotional pain level. As far as the marital status is concerned, statistical differences between them were noticed, being single people those who showed a greater interference of the depression symptoms in life. There weren't significant differences in some clinical and sociodemographic variables (VD type, age, sex, schooling level and marital status) regarding the perception of the interference of VD in life. The results of this pioneer study showed that people who noticed that VD had a greater interference in their lives showed a larger depression symptoms. Some implications of this study are referred, namely regarding rehabilitation, psychological support and training of health professionals, educators and

teachers. Interfering quite early in the anxiety and depression will help with mental health and life quality of people with VD.

**Keywords:** Visual impairment. Anxiety. Depression. Quality of life.

## FUNCTIONAL CAPACITY OF ELDERLY PERSONS - A GENDER PERSPECTIVE

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**Introduction:** The way people age is heterogeneous, strongly dissimilar and fraught with various asymmetries. However, this heterogeneity is usually masked by a homogenizing narrative that describes ageing as a monolithic process and elderly persons as a uniform group. Some studies criticize overgeneralizations of the aging process, identifying hidden differences and inequalities. Both genetic-biological differences, influenced by age, and socio-cultural/psycho-social differences, influenced by history, contribute to the diversity of the aging process.

**Objectives:** To assess gender differences in the functional capacity of elderly persons.

**Methods:** This cross-sectional quantitative study, included 300 elderly persons of ( $M = 74.0$  years;  $SD = 8.5$ ). Functional capacity assessment was conducted with the Portuguese version of the OARS Multidimensional Functional Assessment Questionnaire - Physical and Instrumental Activities of Daily Living (ADL) (Ferreira, Rodrigues & Nogueira, 2006).

**Results:** Gender ( $F = 10.27$ ;  $p = 0.001$ ;  $\eta_p^2 = 0.034$ ) and age-related differences ( $F = 43.02$ ;  $p < 0.001$ ;  $\eta_p^2 = 0.226$ ) were found to be statistically significant. Women have always worse results in terms of ADL when compared to men. Decline in functional capacity is associated with increasing age, for both women and men.

**Conclusions:** Although women show longer life expectancy, they tend to experience less functional capability. Age has an impact on functional capacity in both sexes. As a social phenomenon, healthy ageing is not neutral to gender relations, and is subject to causalities explainable by these relationships and the way they influence life trajectories of women and men.

**Keywords:** Functional capability. Daily life activities. Health. Gender. Aging.

## AN EDUCATIONAL INTERVENTION TO PROMOTE MENTAL HEALTH LITERACY OF ADOLESCENTS: CONDUCTING A FOCUS GROUP

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**Introduction:** Mental health literacy (MHL) refers to knowledge and beliefs about mental disorders which aid their recognition, management or prevention (Jorm et al, 1997). Approximately 8% of teenagers have anxiety disorders (NIMH, 2011) and in Portugal there was anxiety in 66.3% of adolescents in the urgency of a pediatric hospital between 2011 and 2014 (Trinco and Santos, 2015). Portuguese Program for School Health values the promotion of health literacy and anxiety in adolescence (PNSE, 2015).

**Objectives:** To draw an educational intervention to promote MHL about anxiety of adolescents.

**Methods:** Conducting a focus group, for one hour, with 6 adolescents in 9<sup>th</sup> grade: 3 boys and 3 girls between 14 and 15 years, average age 14.3, who agreed to participate and whose parents provided informed consent. The focus group moderator was the investigator, a mental health nurse and there was a non-participant observer, a pediatric nurse. Audio recording was used. We used a vignette about an adolescent with anxiety and raised 12 questions about MHL on anxiety in adolescents and opinion on how to have more information.

**Results:** Adolescents in focus groups suggested conducting an educational intervention at school context about anxiety in adolescents using group dynamics, the issues and educational games. We draw an educational intervention with 4 sessions of 90 minutes, whose contents are in accordance with MHL concept. We used expository, interrogative, demonstrative and active methods and group dynamics, educational games and role-playing.

**Conclusions:** The focus group was very important because it allowed us to know the opinion of adolescents and follows a Delphi with experts. We hope this educational intervention will increase MHL about anxiety of adolescents at school context.

**Keywords:** Adolescents. Mental health. Health literacy. Intervention study. Focus group.

## 21. SAFETY AND QUALITY IN HEALTH

### ATTITUDES, BARRIERS AND PRACTICES RELATED TO EVIDENCE-BASED NURSING: A DIAGNOSTIC ASSESSMENT IN THE PORTUGUESE CONTEXT

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**Introduction:** The assessment of barriers, attitudes and practices related with Evidence-Based Nursing (EBN) it's fundamental to promote in the nursing staff the use of research in clinical practice. Our study objective was to assess attitudes, barriers and practices related to EBN in a group of nursing leaders and local key partners in the northern Portugal.

**Methods:** We used the Portuguese version of the following instruments - "Questionnaire Barriers and Facilitators to Using Research in Practice (BARRIERS)"; "Clinical Effectiveness and Evidence Based Practice Questionnaire (EBPQ)"; and the "Attitudes to Evidence-Based Practice Questionnaire (AEBPQ)". A convenience sample was used. 388 RN participated in the study. These nurses work in hospitals or primary care units. All the participants agree to collaborate voluntarily and was assured data confidentiality and the subjects' anonymity.

**Results:** All nurses had at least a licensure degree corresponding to a 4 year's full time undergraduate academic program in nursing. The majority were women between 31 to 35 years old with a post-graduated specialization in nursing. Strong ( $r \geq 0.7$   $p < 0.01$ ) and moderate ( $r \geq 0.5$   $p < 0.01$ ) Pearson correlations were observed between the following scales and subscales: BARRIERS - Nurses, Research, Organization and Study and between EBPQ Attitudes, Practices, Skills/Competences. Overall, the estimated self-perception rate of daily EBN practice was off 63.86%. Results are partially over-

lapping to those observed in other countries. Our sample presents a higher perception of barriers and low rates of EBN practice and research use.

**Conclusions:** Nurses have a positive attitude related to EBN. Nevertheless there are several barriers that constrain an effective EBN practice in a regular bases.

**Keywords:** Evidence-based nursing. Assess. Practice patterns.

### IMPLICATIONS OF TRAINING ON THE PRACTICE OF HEALTHCARE PROFESSIONALS DEALING WITH LESBIAN, GAY AND BISEXUAL PATIENT

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**Introduction:** Producing evidence on the skills and practices in dealing with lesbian, gay and bisexual (LGB) patients and determining factors thereof constitutes an influential tool in ensuring excellent healthcare for this segment of the population, guaranteeing the effectiveness of health systems.

**Objectives:** Identify the determining factors for the healthcare skills and practices performed by healthcare professionals dealing with lesbian, gay and bisexual patients.

**Methods:** Observational study in objective convenience sample of 119 healthcare professionals, with an average age of 37.90 years, residing in Portugal. Data collection was made using the Sexual Orientation Counselor Competency Scale Citation (SOCCS) (Bidell, 2005) and the Correlates of Homophobia and Gay Affirmative Practice in Rural Practitioners by Crisp (2002), Portuguese version by Pereira & Cunha (2014).

**Results:** 47.1% proved to be competent professionals, 26.9% scored as highly competent professionals and 26% showed lack of competence. The professionals with higher skills were also those who demonstrated the best practices in healthcare (66.7%). Affirmative skills were predictive of healthcare practice when dealing with LGB patients, accounting for 20.9% of its variability.

**Conclusions:** The inferences produced corroborate the existence of a significant statistical effect of affirmative skills in healthcare practice. Accordingly, the results show that the healthcare professionals with the worse affirmative skills have inadequate practices of healthcare when dealing with LGB patients, suggesting that the academic curricula of the healthcare professionals should include psychotherapy training oriented towards the support of LGB patients so as to make therapeutic interventions more effective and inclusive.

**Keywords:** Lesbian. Gay. Bisexual. Healthcare. Practice.

### CARE QUALITY TO DEPENDENT PATIENTS OF A HEALTH CARE CENTER - CONTINUOUS QUALITY IMPROVEMENT CYCLE

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**Introduction:** Home care provided by doctors and nurses represent an organized response to the need to treat, care for and support dependent people, while on their midst, trying to provide them the best possible quality of life.

**Objectives:** Evaluate and ensure quality of care to registered and monitored dependent patients of a Health Care Center (HCC).

**Methods:** Studied dimension: technical and scientific quality. Study Unit: registered and monitored dependent patients of a HCC in 2015. Type and source of data: clinical process. Evaluation: internal

and retrospective. Evaluation criteria: registration of the Barthel scale, the fall risk and the pressure ulcers risk, caregiver identification, family evaluation and realization of medical and nursing home visit/year. Type of intervention: educational. Data processing: Excel®2010. Measures Brokers: presentation of the results at a meeting of the HCC.

**Results:** 79 patients were studied, of whom 65.8% were female, aged between 38 and 97 years (mean 82.8 years). 59.5% had registration of Barthel scale, 54.4% of fall risk and 24.1% reported registration of pressure ulcers risk. The caregiver was identified in 62% of clinical cases. It was performed and recorded family assessment in 3.8% of cases. It was carried out at least one medical home visit/year and nursing home visit/year to 86.1% and 97.5% dependent patients, respectively.

**Conclusions:** Based on the results obtained and the impact of this study on the unit team, it will be important to implement measures to improve the care of dependent patients. In the second evaluation of this quality cycle, to be held within a year, we hope to improve these results.

**Keywords:** Dependency. Home visit. Care quality.

### REIKI AS A COMPLEMENTARY THERAPY: NURSES KNOWLEDGE

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**Introduction:** Reiki is a holistic therapeutic system performed by placing the hands on specific points of the body and uses the energy transfer to provide a natural well-being and restore overall harmony of the individual. Nursing also features within their specific interventions, an essential part based on touch to the person they're providing care, so it's an asset to have knowledge in this area.

**Objectives:** Evaluate the nurse's knowledge about Reiki and identify the determinants of this knowledge.

**Methods:** This is a cross-sectional, descriptive and correlational study, performed in a sample of 49 nurses working in institutions of the central region of Portugal, 26.5% of the area of Primary Health Care and 73.5% of the area of Differentiated Care (DC). The questionnaire was prepared by the researchers for this particular study.

**Results:** We found that overall knowledge of nurses about Reiki was to 59.1% reasonable, to 38.6% high and only 2.3% had low knowledge. We saw statistically significant differences between the "Total Knowledge" and the variables "have Reiki attunement" and "receiving treatment with Reiki" for the group of nurses working on DC. We also found statistically significant differences between the dimension "Concept and History" and age groups, qualifications, professional category and length of service for nurses working on DC.

**Conclusions:** These nurses have moderate knowledge about Reiki and it is clearly superior in the group working on DC. On the other hand we found factors that are determining this knowledge and therefore are important to control.

**Keywords:** Reiki. Nursing. Knowledge.

### QUALITY OF LIFE OF THE HUNTINGTON'S PATIENTS INFORMAL CAREGIVERS

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**Introduction:** Huntington's disease (HD) is an inherited neurodegenerative disease which affects the movement and leads to the progressive cognitive deficits and behavioral capacities. Care for

a Huntington patient is a complex and demanding process with a major impact on health, well-being and quality of life of Informal Caregivers (IC).

**Objectives:** To evaluate the impact of HD in the Quality of Life (QoL) Informal Caregiver, and to verify to what extent the socio-demographic, contextual and clinical variables relate to that QoL.

**Methods:** This is a quantitative study, non-experimental, transversal in a logic of descriptive and correlational analysis of 50 IC of Spanish nationality. We used the Spanish version of the questionnaire: Huntington's Disease Quality of Life Battery for Carers (HDQoL-C).

**Results:** The participants are mostly female (68%), averaging 50.04 years of age, married (72%) with a high level of literacy (52%) and active (72%). Essentially spouses of the dependent person (52%) or children (28%). The results suggest that IC have a moderate QoL (53%) in which the caregiver role has great impact on QoL (43%) considering "life satisfaction" and "feelings about life with HD" which appear to alleviate this burden. Data showed that the variables that significantly influenced the overall Quality of Life are: the educational level and the number of hours of daily care.

**Conclusions:** The results reinforce the multidimensionality and variability of quality of life of the Huntington's patients Informal Caregivers and highlight the need for health professionals to take a chance on intervention programs in the community, in order to increase the capability to care and promote the QoL of those who care.

**Keywords:** Huntington's disease. Informal caregivers. Quality of life.

### (POSTER) EFFECTIVENESS OF PROGRAMS TO PREVENT VIOLENCE TO HEALTH PROFESSIONALS IN THE EMERGENCY DEPARTMENT: A SYSTEMATIC REVIEW

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**Introduction:** Violence against healthcare professionals is a problem in the emergency departments worldwide. Growing research found that it has negative effects on these professionals such as stress, job satisfaction, competent care, etc. Educational prevention programs seems to reduce the risk of workplace violence, but few emergency departments have them.

**Objectives:** To determine the effectiveness of programs to prevent violence to health professionals in the emergency department, and to determine the prevalence of those episodes of violence.

**Methods:** We performed a systematic review following the principles proposed by the Cochrane Handbook. We systematically searched PubMed MEDLINE, Embase and EBSCO from 2006 to 20 June of 2016 (with monthly updates). Two reviewers independently selected articles, collected data from studies, and carried out a hand search of the references of the included studies. For access quality of the studies we used the scale from Centre for Evidence Based Medicine of Faculty of Medicine Lisbon, and the primary outcomes were risk assessment, workplace violence prevention and control.

**Results:** Preliminary results showed that the workplace violence in the emergency department is well-known and measured in incidence, occurrence, amount and type. The better prevention is to involve individual workers, law-enforcement officials, and health care organizations, to determine vulnerabilities and elaborate preventive programs.

**Conclusions:** Prevent workplace violence in the emergency department relies in a combination of multiple ideas, standardized in-



interventions that sustain the development of appropriate programs suitable to each context.

**Keywords:** Violence. Emergency. Nursing. Risk assessment.

### VISUAL HEALTH PROMOTION AT SCHOOL

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**Introduction:** The increasing working requirements with the near vision, both quantitative and qualitative (such as reading in a computer screen or in paper), exercised continuously and regularly, can cause various disorders and the visual system is strongly affected. The progression on education level inevitably leads to a greater visual effort, and therefore, the pre-teens and teenagers who perform long periods of work with near vision, as reading, writing, or continuous use of computers, are more likely to report symptoms and to present signs associated with these vision disorders. However, symptoms associated with near vision work for a long period can be reduced or avoided with the adoption of healthy visual habits, also called visual hygiene standards.

**Objectives:** The aim is for teenagers to perceive the visual dynamics involved in implementing different visual tasks to which they are exposed in their daily lives.

**Methods:** A pilot study implemented in a specific school in the centre of the country. Plenary sessions were addressed to students of the 7th grade, about the visual system. Questionnaires related to the topics covered, were applied before and after the sessions.

**Results:** Analysis of knowledge of visual function before and after the plenary sessions reveals a significant increase in the knowledge of this subject.

**Conclusions:** These data reveal a strong illiteracy with respect to visual health. Increase information on visual function, from basic knowledge of eye operation to correct interpretation and appreciation of signs and symptoms associated with visual stress is paramount. It is also necessary to educate young people to adopt healthy visuo-postural habits in order to hold them accountable for taking care of their visual health.

**Keywords:** Visual health. Teenagers. Visual hygiene standards.

### CLINICAL SUPERVISION TO IMPROVE BREASTFEEDING

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**Introduction:** Breastfeeding is an indicator of quality of child and maternal health and consequently of healthcare. The development of parental skills is related to the excellence of nursing care and this can be developed inside clinical supervision (CS), as this is a process of professional support that allow nurses to have a better clinical decision reasoning.

**Objectives:** To assess parental skills in breastfeeding in order to contribute to develop a CS model.

**Methods:** We conducted a quantitative, descriptive and correlational study based in a sample constituted by 135 puerperal women who were admitted in the obstetrics ward of Médio Ave Hospital Centre between February and April 2012. Data collection was done by questionnaire. Univariate and bivariate statistics analysis were used to treat data.

**Results:** In our study, we verified that 49% of the mothers had low or very low knowledge on breastfeeding and 18% of the mothers

had low or very low skills for breastfeeding. Globally, the mothers showed deficit in the skills for breastfeeding.

**Conclusions:** Clinical supervision is a strategy to develop nursing skills and the quality of nursing care related to breastfeeding. The clinical supervision process enables the professional to have more knowledge and skills in his/her professional exercise. When nurses contribute for the parental knowledge, skills and satisfaction with breastfeeding consequently contribute to the breastfeeding success and this, consequently, can improve the breastfeeding rate (length of breastfeeding and exclusive breastfeeding) because the parental skills for breastfeeding are determinant for the beginning and maintenance of breastfeeding process and constitute an intervention area for the nurses.

**Keywords:** Clinical supervision. Quality of care. Safety of care. Breastfeeding. Nursing.

### INSIDE CLINICAL SUPERVISION: CONTRIBUTIONS FOR NURSES

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**Introduction:** Clinical supervision (CS) in nursing is a pre requisite to promote the safety and quality of care and plays a major role in the personal and professional development of nurses. The supervision process allow to develop skills and competencies in a reflexive learning environment safeguarding the patients and it is considered to be a right of the professionals and a responsibility of the organization.

**Objectives:** To analyse the supervisees perspectives of the implementation of a CS model for nurses.

**Methods:** We conducted a qualitative, exploratory and descriptive study from July to September 2013 in the Médio Ave Hospital Centre. Our participants were 10 nurses who were supervised by peers. Face to face semi-structured interviews were performed and content analyses was used to treat data.

**Results:** Personal development, Professional development, Support, Professional satisfaction, Team relationship and Profession social recognition emerged as categories.

**Conclusions:** Our findings corroborate other studies that identified contributes of the implementation of CS models for professionals, institutions and patients. The implementation of a supervision process allowed to meet the nurses needs and increased their satisfaction and bonding to the profession and simultaneously promoted gains in health due to a better nursing clinical decision. It also promoted safety and quality of nursing care. The participants also evaluated the model as a way to promote personal and professional development which allowed the exchange of experiences between nurses. Benefits of the implementation of a CS model were reported, so we can conclude that the implementation of a CS model is important and several outcomes can be achieved with supervision.

**Keywords:** Clinical supervision in Nursing. Quality of care. Safety of care. Nurses. Supervisees.

WITHDRAWN ABSTRACT

WITHDRAWN ABSTRACT

### ERGONOMIC RISK ASSESSMENT METHODOLOGIES: HOW TO SELECT AND APPLICATE

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The application of ergonomic principles in the workplace can reduce the potential for accidents and reduce the potential for injuries, particularly musculoskeletal disorders and health problems, and improve the performance and productivity of workers. Musculoskeletal disorders have become one of the biggest health problems at work and one of the main concerns of ergonomics. To deal with this issue, has been raised several ergonomic risk assessment methods. However, with the inordinate development methodologies also a difficulty arises on the most appropriate to specific situations. The present study intended to make a comparative analysis of several methodologies of ergonomic risk assessment identifying the mains characteristics, application areas, strengths and limitations. It was compared some ergonomic risk assessment methodologies to evaluate tasks with repetitive movements and/or forced postures, namely RULA (Rapid Upper Limb Assessment), SI (Strain Index), OCRA (Occupational Repetitive Actions), OWAS (Ovako Working Analysis System), REBA (Rapid Entire Body Assessment), LUBA (Loading on the Upper Body Assessment), QEC (Quick Exposure Check), NIOSH equation, KIM (Key Indicator Method) and MAC (Manual Assessment Charts). Given the wide variety, it proves to be a challenge to choose the suitable method, or combination, in order to meet the requirement of the tasks performed by workers.

**Keywords:** Ergonomic. Risk assessment. Methodologies.

### CLINICAL COMMUNICATION (HANDOVER) AND SAFETY OF NURSING CARE: LITERATURE REVIEW

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**Introduction:** The handover as a process of transference of responsibilities is considered a crucial moment in the provision of nursing quality care. Problems in communication are the major causes of errors that occur during situations of handover.

**Objectives:** We propose to identify the evidence of the relationship of clinical communication (handover) and safety of nursing care.

**Methods:** We accomplished an integrative literature review using Pubmed, Web of Science, Scopus, CINAHL data bases. A research across the terms: "Patient Handoff", "Patient Safety" and "Clinical Communication" was realized. In studies for research strategy emerged 137 articles. We selected 8 articles that responded to the purpose of this study. As inclusion criteria, studies published between January 2010 and March 2016 were established, available in Portuguese and English.

**Results:** The analysis of the articles through critical and qualitative reading identified convergences allowing the following grouping by themes: handover as a process of the transference of responsibility, barriers to effective communication and strategies promoting a handover with quality. About 9% of the information shared during the handover is considered irrelevant, only 6% of the information provided refer to interventions related to the patient (Welsh et al., 2010).

**Conclusions:** The quality of information during the handover allows nurses to get to know the patients, organize interventions, anticipating risks. It is essential to identify barriers that interfere with the handover process, for being able to implement strategies that constitute an effective communication process and thus promote the safety of the patient.

**Keywords:** Clinical communication. Handover. Patient safety.

### RETROSPECTIVE ANALYSIS OF MORSE FALL SCALE SCORES: FOCUS ON PATIENTS' CHARACTERISTICS

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**Introduction:** Falls continue to be a challenge to health care professionals. They reduce patients' quality of life and increase healthcare costs. The Morse Fall Scale (MFS) is used in several care settings and supports the implementation of preventive nursing interventions.

**Objectives:** To analyse the fall risk level in hospitalised patients in association with their characteristics, diagnoses and length of inpatient stay.

**Methods:** Retrospective cohort study of electronic health records database from adult patients admitted to medical and surgical areas of a Portuguese hospital during one year. The participants were categorized in 3 levels of risk: "low risk" (MFS < 25 points), "medium risk" (MFS 25-50 points) and "high risk" (MFS > 50 points). The MFS scores were associated with age, gender, type of admission, specialty units, length of inpatient stay and ICD-9 diagnosis.

**Results:** This study included 8,356 participants: 54.2% (first assessment) and 53.4% (last assessment) had "medium to high" risk of falling. Elderly participants, with emergency service admission, at medical units, with longer length of inpatient stay, and/or women were more frequently included in the risk groups. ICD-9 diagnosis may also be an important risk factor, namely in patients with "traumas/fractures", "infections", "respiratory" and "vascular" diseases.

**Conclusions:** More than a half of hospitalized patients had "medium" to "high" risk of falling during the length of inpatient stay, which determines the implementation and maintenance of protocolled preventive nursing interventions throughout hospitalisation. There are several fall risk factors not assessed by MFS that should be taken into account. There were no statistical differences in MFS score between the first and the last assessment.

**Keywords:** Accidental falls. Nursing assessment. Risk assessment.

## THE INFLUENCE OF BRADEN SUBSCALES ON PRESSURE ULCERS DEVELOPMENT

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**Introduction:** The development of pressure ulcer(s) is complex and multifactorial and nursing staff needs to manage several pressure ulcer risk factors in order to prevent pressure ulcer development. Nurses should use each Braden subscale score as an initial appraisal of a patient's specific problems. However, the investigation of the contribution of the Braden subscale scores has been limited and the findings have been inconclusive.

**Objectives:** To determinate which Braden Scale items are the best predictors of pressure ulcer incidence in hospitalised adult patients.

**Methods:** Retrospective cohort analysis of electronic health record database from adult patients admitted without pressure ulcer to medical and surgical areas of a Portuguese hospital during one year. Cox proportional hazards regression was used to analyse the association between the pressure ulcer development and Braden Scale items. In all analyses, a p-value < 0.05 indicated statistical significance.

**Results:** This study included 6,552 participants. During the length of stay, 153 participants developed (at least) one pressure ulcer, giving a pressure ulcer incidence of 2.3%. For Braden Scale items, the univariate time to event analysis showed that all items, except "nutrition", were associated with the development of pressure ulcer. By multivariate analysis the scores for "mobility" and "activity" were independently predictive of the development of pressure ulcer, with hazard ratios of 2.08 (95%CI = 1.61-2.68) and 1.24 (95%CI = 1.02-1.52).

**Conclusions:** Nurses should consider the best pressure ulcer predictors (derived from Braden Scale) to plan more accurate nursing preventive interventions. The Braden Scale item "nutrition" besides assessing the "food and fluid intake" could be improved with anthropometrics data.

**Keywords:** Braden Scale. Incidence. Pressure ulcers.

## SELF-MEDICATION ON THE STUDENTS OF THE SCHOOL OF HEALTH FROM POLYTECHNIC INSTITUTE OF BRAGANÇA

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**Introduction:** The self-medication is a phenomenon more and more frequent and used for several years already, and its incidence and distribution are related with the organization and health system of each country. Following Medeiros thoughts (2011), this practice consists in the consumption of a medicine with the purpose of treating or relieving the symptoms and diseases or even promote self health, without using a professional prescription.

**Methods:** With this study, we intend to find the self-medication practice incidence on the students in the School of Health of Polytechnic Institute of Bragança (ESSa), identify the motives that lead these students to resort to this methods and identify the most used medications. It's a transversal descriptive, observational and quantitative study. To obtain the best results it was applied a questionnaire built for that purpose. The statistics analyses was made using Excel program. Our sample has 219 students of the School of Health from Polytechnic Institute of Bragança.

**Results:** The studied sample includes 194 female and 25 male students distributed as follows: 36 frequenting Biomedical Laboratory

Sciences, 26 Dietetics and Nutrition, 99 Nursing, 33 Gerontology and 22 studying Pharmacy. The self-medication prevalence was 98%. The most used medicines was the analgesics and antipyretics with 86%. The most prevalent reason for the use of self-medication was the thought that the disease was a "minor health issue". It was also considered a risky practice by 77% of the students.

**Conclusions:** The self-medication is an evident practice on the ESSa students. This results reveal some contradiction since the most consider it as a risky practice, however it is, still, practiced.

**Keywords:** Self-medication. Health. Students. Medicines. Higher education.

## INSIDE CLINICAL SUPERVISION: CHARACTERISTICS OF A CLINICAL SUPERVISOR

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**Introduction:** Clinical supervision in nursing is essential for the nurses personal and professional development but also for the quality of care they provide. The clinical supervisor has an important and decisive role in the supervision process and to become an outstanding supervisor his/her characteristics must be clarified.

**Objectives:** To identify the characteristics of a clinical supervisor from a supervisees' perspective.

**Methods:** We conducted a qualitative, exploratory and descriptive study from July to September 2013 in the Medio Ave Hospital Centre. Our participants were 10 nurses who were supervised by peers. Face to face semi-structured interviews were performed and content analysis was used to treat data.

**Results:** Assertiveness, empathy, availability, motivation, objectivity, impartiality, flexibility, leadership, ability to communicate, observation skills, inspire confidence, open mind, being accepted by peers, clinical expertise and experience emerged as important personal characteristics of a clinical supervisor. Supervisees also looked at their supervisor as a role model, someone that is able to create/develop supportive relationships, to solve problems and/or conflicts and to promote the supervisees' autonomy. Training in clinical supervision is also considered important to perform this role.

**Conclusions:** Our findings corroborate other studies that identified the clinical supervisor characteristics valued by nurses. The clinical supervisor interpersonal skills, knowledge and clinical skills were perceived by nurses as important characteristics of this professional. Those characteristics contributes to facilitate the supervisory relationship, the quality of the process, the development of the supervisees' skills and the improvement of their clinical practice.

**Keywords:** Clinical supervision in Nursing. Clinical Supervisor. Supervisees. Clinical Supervisor characteristics.

## SURVEY THE SITUATION OF EDUCATION AND TRAINING IN "PATIENT SAFETY" BASED ON MULTIPROFESSIONAL GUIDE - WHO

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**Introduction:** The citizen has the right to have quality healthcare, being recognized all the legitimacy to demand at all performance

levels, with security assuming a major role. In 2011 WHO developed "Patient Safety Curriculum Guide - Multi-professional Edition" where the flexible proposals are being integrated in the already existing curriculums.

**Objectives:** To survey the Situation of education and training in "Patient safety" in healthcare institutions (primary healthcare and hospital care), schools/universities.

**Methods:** Qualitative and retrospective studies through the analysis of the content with an exploratory approach, based on an a priori categorization. The initial structure of the approach analysis came from the analysis grid "Multiprofessional Guide Topics".

**Results:** The execution of this research allowed us to verify that healthcare professionals are properly trained to deal with patients, however there still are misjudgements and miscommunication due to the lack of education and training in patient safety. The analysis of the content from the school curriculums showed that it is given more importance to technical skills than to the non-technical skills, opposing the Multiprofessional Guide. It was concluded that there is necessity of an in-depth patient safety curriculum, theoretical and practice wise.

**Conclusions:** The European Commission (2014) identified the lack of education and training, in Patient Safety, on healthcare professionals, in Portugal. Therefore, we came across the same conclusion, patient safety should be part of healthcare providers education and training.

**Keywords:** Patient safety. Education. Training.

## REFERRALS FOR HOSPITALAR CONSULTATION REGARDING THYROID NODULES - ARE FAMILY PHYSICIANS ACTING PROPERLY?

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**Introduction:** An estimated 20-76% of the population have a thyroid nodule (TN) detectable by ultrasonography (US). According to European guidelines, biopsy is usually recommended for solid nodules exceeding 1 cm and mixed cystic-solid nodules exceeding 1,5 to 2 cm. Purely cystic nodules do not require biopsy.

**Objectives:** Characterize the referrals for hospitalar consultation of population of a Health Care Center (HCC) diagnosed with TN between 01/2013 and 12/2015.

**Methods:** Observational, descriptive and retrospective study. Analysis of referrals for hospitalar consultation of users enrolled in HCC with TN. Study variables: gender, age, ultrasonographic features of thyroid nodules and referrals' adequacy attending to European guidelines. Data collected through SINUS<sup>®</sup>, SCLínico<sup>®</sup> and Alert<sup>®</sup> and processed in Excel<sup>®</sup>.

**Results:** 65 referrals were obtained. 5 excluded from study because of lack of information about TN's ultrasonographic features. 60 patients were identified, of whom 83.3% were female, aged between 22 and 83 years (mean 58.3 years). Suspicious ultrasonographic features were found in 38.1% of the nodules. Most TN that justified hospitalar referral were solid (85.7%), followed by the mixed cystic-solid (11.1%). Only 6.7% (n = 4) of all referrals did not respect the criteria established by European guidelines. These cases involved 3 patients with infracentimetric solid TN without risk factors and 1 patient with a 1 cm purely cystic nodule.

**Conclusions:** The knowledge about which TN necessitate a biopsy and which can be safely monitored or ignored may avoid unnecessary requests for hospitalar consultation and unjustified invasive procedures. This study showed that most family physicians are acting according to European guidelines for the management of TN.

**Keywords:** Thyroid nodules. Referrals. Hospitalar consultation. Ultrasonography. Biopsy.

## 22. SEXUAL AND REPRODUCTIVE HEALTH

### USE AND KNOWLEDGE OF ORAL CONTRACEPTION IN HIGHER EDUCATION STUDENTS OF POLYTECHNIC INSTITUTE OF BRAGANÇA AND OF MACAU

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**Introduction:** The oral contraception (OC), consisting of estrogens and progestogens in different dosage and combination, is one of the most used and effective contraceptive methods.

**Objectives:** The present study aimed to characterize the use of OC and evaluate the knowledge related to the effectiveness and adverse effects of this contraceptive method.

**Methods:** A cross-sectional study was performed through application of a questionnaire to 206 female students of Polytechnic Institute of Bragança (IPB) (aged  $22.8 \pm 18.0$  years) and 150 of Polytechnic Institute of Macau (IPM) with  $20.6 \pm 1.5$  years.

**Results:** The results showed that 71.4% of IPB students use OC, especially the Minigeste<sup>®</sup> or its generic, and began the consumption at 17.6 years old. For IPM students, the aged of start of use is similar (17.3 years), however the consumption is much lower (1.3%). The differences of the use between the two groups are statistically significant ( $p = 0.00001$ ). Additionally, 30.0% of the IPB students use OC for 3 to 4 years while 60.0% of IPM students for less than a year. The amount of the experienced adverse effects is equivalent in both groups (32.0% and 33.3% for IPB and IPM, respectively). The knowledge related to the adverse effects is reasonable for the two groups with 29.6% and 34.5% to IPB and IPM students, respectively. However, the knowledge about the effectiveness of OC in the IPB students is higher (very good, 41.7%) than that of IPM (very weak, 61.3%), confirmed by Student's t test ( $p = 0.00001$ ).

**Conclusions:** This study revealed that IPB students are the most users of CO and, globally, have higher knowledge about the thematic.

**Keywords:** Oral contraception. Knowledge. Use. Students.

### KNOWLEDGE, PERCEPTIONS AND ATTITUDES ON THE SEXUALITY OF NURSING STUDENTS AND TEACHERS

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**Introduction:** The personal attitudes regarding specific aspects of sexuality are of interest to practices of personal concern, as they are to practices inserted in professional roles. General attitudes towards sexuality and sexual health were evaluated.

**Objectives:** To describe the perceptions and attitudes of students and nursing teachers about sexuality.

**Methods:** We used a mixed methods design with a sequential strategy: QUAN-qual of descriptive and explanatory type. 646 students and teachers participated. The Sexual Attitudes Scale (EAS) of Hendrick & Hendrick (Alferes, 1999) and Attitude Scale Address Sexual and Reproductive Health (EAFSSR) of Nemčić et al (Abreu, 2008) were used.

**Results:** There are significant differences in the level of knowledge about sexuality depending on the sample ( $\chi^2$  KW (2) = 18.271;  $p = 0.000$ ): students of 1st year have lower levels. The profile of the four dimensions of EAS per sample is identical in all 3 samples, having responsibility the highest average value. In subscales EAFSSR per sample and sex there are significant differences ( $p < 0.05$ ) for

all samples and uniform pattern was noted: females have higher median values, indicating that they have more favorable attitudes towards sexual health.

**Conclusions:** Sexual attitudes reveal a multidimensional structure based in the female identity, that shows responsibility towards family planning and sexual education, as well as towards individual self-care regarding the body and sexual and reproductive health. An attitudinal profile by gender emerges, accentuating the polarity between male and female. The importance of the training process in nursing following the personal and social development of students is corroborated.

**Keywords:** Sexuality attitudes. Nursing students. Teachers.

## KNOWLEDGE AND ATTITUDES ON SEXUAL AND REPRODUCTIVE HEALTH IN COLLEGE STUDENTS

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**Introduction:** Knowledge provides the foundation for values, attitudes and behavior. Knowledge of the sexual and reproductive health (SRH) and positive attitudes is essential to perform a protective behavior.

**Objectives:** The aim of this study was to evaluate SRH knowledge and attitudes in college students and their association to sexual behaviors.

**Methods:** A cross-sectional study was conducted in a sample of 1,946 college students. Data were collected using a self-report questionnaire on sociodemographics characteristics of the sample and an inventory on SRH knowledge and attitude scale and analyzed with descriptive and inferential statistics (ANOVA).

**Results:** The sample included 64% girls and 36% boys with a mean age of 21 years. The majority was sexually active and used contraception. The SRH knowledge was median ( $22.27 \pm 5.79$ ; maximum score = 44); the average SSR attitude score is more favorable ( $118.29 \pm 13.92$ ; maximum score = 140). Female and younger students studying in life and health sciences showed higher ( $p < 0.05$ ) SRH knowledge and attitude scores. The consistent use of contraception and the health care surveillance were highly dependent on the SRH knowledge and attitude. The engagement on sexual risk behaviors was associated to students with lower scores in these variables.

**Conclusions:** Strategies to increase SRH knowledge and attitude are important tools to improve protective behaviors, namely on contraception, health care surveillance and exposure to sexual risk. Older boys studying in other than life-sciences should be a priority target for intervention due to their status of higher sexual risk. Nursing interventions might have a key role in these aspects, resulting in a better understanding of the college students of the benefits of having a protective behavior.

**Keywords:** Attitude. Knowledge. Sexual behavior. College student.

WITHDRAWN ABSTRACT

## CONTRACEPTION IN COLLEGE STUDENTS: PRACTICES AND CHALLENGES

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**Introduction:** The promotion of sexual and reproductive health (SRH) acquires a particular importance in young adults since this population is at high risk for STIs and unintended pregnancies. Health professionals play a key role in contraception education by providing the students with the ability to choose the best methods and improving their ability to use contraception.

**Objectives:** Describe contraceptive practice of college students and identify factors which influence contraceptive choices.

**Methods:** A correlational quantitative study was conducted in an university in the north of Portugal, and involved 1946 college students with a mean age of 21 years. Data was collected by self-report questionnaire for socio-demographic and contraceptive behavioral characterization. The data was stratified by sex and analyzed using descriptive and inferential statistics (chi-square).

**Results:** The majority of students (76.9%) was sexually active and uses contraception (96.7%). The most commonly used methods are hormonal (43.7%) and the condom (21.8%). Only 30.8% of the participants referred using the condom consistently. Emergency contraception was used by 23.8% of the students. The main source of information about contraception was doctors 38.9%, nurses 21.8%) and the internet (22.7%). There were significant differences in contraceptive practices ( $p < 0.001$ ) with gender, age, scientific area of studies, type of relationship and sexual risk behaviors (alcohol and drugs use, casual partners).

**Conclusions:** The orientations to an adequate contraceptive practice in college students should: take into consideration gender, age, relationship stability and sexual risk behaviors, as well as, reinforce

WITHDRAWN ABSTRACT

the importance of using a condom consistently and dual protection (hormonal methods and condom).

**Keywords:** Contraception. College students. Sexual health.

### THE KNOWLEDGES OF THE RESIDENTS OF ÉVORA'S UNIVERSITY CAMPUS ON HIV AND SEXUAL PRACTICES

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**Introduction:** Portugal, during the year of 2014, accentuated the tendencies to the decrease of the number of new declared cases of infection for HIV. Since the beginning of the epidemic in Portugal, 74.2% of the declared cases occurred in an age group of 20-44 and 14.6% in people over 49 years old. If the manifestations take, sometimes, a long period until its clinical diagnosis (Boyer & Kegeles, 1991). To implement prevention campaigns it's necessary to know its recipients. The knowledge of the university students on HIV is satisfactory (Jahanfar, Lye, & Rampal, 2009; Sutton et al., 2011) but it is not documented on residents of University Campus.

**Objectives:** To describe the knowledge on HIV infection of the students who live in University Residences.

**Methods:** It was done a quantitative, descriptive and transversal study. Convenience sample from 200 subjects with average ages of 21.77 years old (DP = 2.24), being 66.5% girls. The survey concerns on socio-demographic aspects, course attended and knowledge on HIV through a scale. (Zimet, 1998).

**Results:** The level of knowledge is high (M = 18.17; DP = 2.26). The students of a graduation course have bigger knowledge than the ones attending masters and doctorates graduations and other trainings, in these final ones with meaningful differences. It's the subjects who have a regular partner and that simultaneously have sexual relations with others that have weaker knowledge on HIV.

**Conclusions:** Sexual education in compulsory education, the promotion in the mass media and health education campaigns, may justify the score of the sample. However it will be necessary to find strategies to bind the knowledge to safe behaviours.

**Keywords:** University students. HIV Infection. Sexuality.

### SEXUALITY IN ADOLESCENTS: FORMATIVE INTERVENTION

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**Background:** Adolescents with access to knowledge will be able to change their attitudes and their behavior.

**Objectives:** Characterize adolescents in sexual variables; identify the knowledge about STIs and family planning; identify attitudes towards sexuality, pill and condoms; identify the motivation to have or not have sex; determine the effectiveness of an educational intervention.

**Methods:** The data collection instrument is a questionnaire with sociodemographic and sexual characteristics, attitudes to sexuality in adolescents scale (Nelas et al., 2010), knowledge about infections of sexual transmission scale (Nelas et al., 2010), attitudes towards condom scale (Ramos et al., 2008), attitudes towards pill scale, knowledge about family planning scale (Nelas et al., 2010), motivation to have or not have sex scale (Alfares, 1997).

**Results:** The sample consists of 56 students (28 in the control group and 28 in the experimental group). The control group consists of adolescents with a minimum of 13 and maximum of 17

years; the experimental group consists of participants with a minimum of 14 and a maximum of 18 years, students of older experimental group, with a mean age of 15.29. The girls in the control group showed more knowledge about sexually transmitted infections in both evaluation moments, the male adolescents, in both moments, reveal more knowledge about family planning, compared to adolescent females. The positive rates before the training intervention corresponded best rates after the training intervention.

**Conclusion:** The nurse specialist in health education should promote attitudes and necessary personal skills to adopt healthy behaviors by adolescent.

**Keywords:** Adolescents. Sexuality. Sex education. Training intervention.

### ATTITUDES OF TEENAGERS TOWARDS SEXUALITY

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**Introduction:** The area of sexuality is seen as very relevant at any stage of life, but with specific characteristics in adolescence. Attitudes, behaviors, beliefs and values related to sexuality in the life cycle stage, are factors that can influence the health of adolescents, affecting the integrity of the various levels of functionality.

**Objectives:** To know the attitudes of teenagers towards sexuality and analyze its relationship with gender and religion.

**Methods:** It is a study of quantitative approach, observational, descriptive and analytical. A questionnaire was applied on a sample of 432 adolescents aged between 14 and 18 years.

**Results:** The results show that most young people presents more liberal positions and less conservative towards sexuality positions. The girls expressed more liberal attitudes compared to boys. The girls value more affective dimension. With regard to religion, the attitudes of teenagers towards sexuality Catholics no are different from non-Catholic teens.

**Conclusions:** Although in recent years there had been changes in cultural patterns, which are reflected in a relative change of mentalities, we found that sexuality in general still remains associated with myths and taboos. Teens revealed liberal attitudes about sexuality in general, but also show fear, shame and embarrassment regarding their sexuality and embarrassment in communicating about it.

**Keywords:** Sexuality. Attitudes and adolescence.

## 23. SLEEP DISORDERS AND STRESS

### BIOFEEDBACK AND STRESS MANAGEMENT IN UNIVERSITY FIRST YEAR NURSING STUDENTS

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**Introduction:** Stress is a problem with high prevalence among higher education students, with impact on their well-being and academic performance. Limited resources require the research for cost-effective solutions (Dyson & Renk, 2006). Biofeedback has

proven its efficacy in this context (Authors, 2013; Ratanasiripon, 2015).

**Objectives:** To study the effectiveness of a biofeedback training in stress prevention of first year nursing students.

**Methods:** A total of 21 freshman nursing students were randomly distributed by biofeedback and control groups. Biofeedback group did a weekly biofeedback session over 8 weeks, while control group did not made any intervention. Both groups were assessed before and after the intervention with the Inventory of Stress in College Students.

**Results:** After training the biofeedback group showed a non-significant reduction of ISEU's full scale and its subscales. In the opposite direction the control group showed a significant increase in ISEU's full scale ( $Z = 2.08$ ,  $p < 0.05$ ) and self-esteem subscale ( $Z = -2.14$ ,  $p < 0.05$ ), while all other subscales had a non-significant increase.

**Conclusions:** This study pretended to verify the effectiveness of biofeedback in preventing the raise of stress levels of nursing students in their first year. The results of control group reflects the expected increase of stress levels. The non-significant reduction in stress levels of biofeedback group may indicate the effectiveness of biofeedback in the prevention of stress increase. These results are consistent with other national and international studies such as those conducted by authors (2013) or Ratanasiripong (2015). We propose further studies with larger samples in order to validate the results.

**Keywords:** Stress management. Biofeedback. Higher education.

### SLEEP DISORDERS IN PRESCHOOLERS: PARENTAL PERCEPTION VS CHILDREN'S SLEEP HABITS QUESTIONNAIRE SCORE

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**Introduction:** Changes in sleep behavior and quality are universal, have a significant social impact and its consequences are negative. Although being the main caregivers, parents do not always realize or can appraise their children's sleep disorders (SD).

**Objectives:** As part of a more comprehensive research about SD and sleep quality in children, was defined as one of the goals: characterize children's SD in preschool age.

**Methods:** Quantitative descriptive and explanatory cross-correlated study with a non-probability convenience sample of 642 preschoolers (ages between 3 and 6) attending kindergarten in Águeda and Albergaria-a-Velha. The evaluation protocol includes a sociodemographic questionnaire, a children's life subjects' questionnaire, the Portuguese version of Children's Sleep Habits Questionnaire (Silva, 2011) and the adaptation of Portuguese version of Pittsburgh Sleep Quality Index (Ramalho, 2008).

**Results:** We found that 92.2% of parents consider that their children do not have SD and only 7.8% assumes that they have. However, CSHQ's total score point in another direction: only 29.6% of children have low PS, 44.9% intermediate PS and 25.5% has high PS. Regarding the distribution in the sample of children with low PS, 12.2% are female and 15.4% male; with intermediate PS 24.1% are female and 20.7% male; with high PS, 13.4% are female and 12.1% male.

**Conclusions:** The results are worrying and highlight the need to step up efforts in order to understand the factors involved in the onset of SD. On the other hand, reveal the need to empower parents, in primary prevention, through intervention programs targeted to sleep and rest's main role in child development.

**Keywords:** Sleep disorders. Children. Parental perception.

### SLEEP BEHAVIOUR AND SLEEP QUALITY: PRESCHOOLERS' LIFESTYLE

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**Introduction:** Children's lifestyle includes a complex set of factors that influence several aspects of their life, particularly in appearance of changes in behavior and sleep quality. Research shows that lifestyle is changing, and not always in the best direction.

**Objectives:** As part of a more comprehensive research about sleep behavior and sleep quality in children, was defined as one of the goals: characterize children's lifestyle in preschool age.

**Methods:** Quantitative descriptive and explanatory cross-correlated study with a non-probability convenience sample of 642 preschoolers (ages between 3 and 6) attending kindergarten in Águeda and Albergaria-a-Velha. The evaluation protocol includes a sociodemographic questionnaire, a children's life subjects' questionnaire, the Portuguese version of Children's Sleep Habits Questionnaire (Silva, 2011) and the adaptation of Portuguese version of Pittsburgh Sleep Quality Index (Ramalho, 2008).

**Results:** We found that 94.1% of children eat sweets/chocolates, 7.3% daily, 51.4% between 2-5 times/week, 56.1% do it between meals and 1% before bed. That 53.4% drink soda/coffee/tea, 10.5% daily, 33.8% between 2-5 times/week and 12.8% do it between meals, 1.7% at breakfast, 53.4% at dinner and 2.3% before bed. On the other side, 53.3% do physic exercise, 47.6% about 2 to 3 times/week and 46.4% 1 time/week, on average they do it nearly about 16 months and averaged during 101 minutes/week. The most popular activities are swimming, dancing and football.

**Conclusions:** The results are worrying and enhance the need to implement effective empowerment programs to promote parents' health literacy, in order to allow them to choose and adopt healthier lifestyles for their children.

**Keywords:** Children lifestyle. Sleep behavior. Sleep quality.

### SLEEP QUALITY IN PRESCHOOLERS: PARENTAL PERCEPTION VS PITTSBURGH SLEEP QUALITY INDEX SCORE

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**Introduction:** Although sleep is a psychobiological need that has to be met. Research shows that among the most common complaints throughout childhood are changes in sleep behavior and quality. Although being the main caregivers, parents do not always realize or can appraise their children's sleep quality (SQ).

**Objectives:** As part of a more comprehensive research about children's sleep, was defined as one of the goals: characterize children's SQ.

**Methods:** Quantitative descriptive and explanatory cross-correlated study with a non-probability convenience sample of 642 preschoolers (ages between 3 and 6) attending kindergarten in Águeda and Albergaria-a-Velha. The evaluation protocol includes a sociodemographic questionnaire, a children's life subjects' questionnaire, the Portuguese version of Children's Sleep Habits Questionnaire (Silva, 2011) and the adaptation of Portuguese version of Pittsburgh Sleep Quality Index (Ramalho, 2008).

**Results:** We found that 94.1% of parents believe that their children have good SQ and only 5.9% assumes that have poor SQ. However, PSQI's total score point in another direction: only 64.8% of children exhibit good SQ versus 35.2% that has bad SQ. Regarding the sam-

ple's distribution of the children with good SQ, 33.8% are female and 31% male; 27.3% are aged between 3 and 4 years and 37.5% aged 5 to 6 years. In the same way, looking to children with bad SQ, 17.9% are female and 17.3% male, 16.8% are aged between 3 and 4 years and 18.4% aged 5 to 6 years.

**Conclusions:** The results are worrying and enhance the need to implement effective empowerment programs to promote parents' health literacy, in order to enable them to provide favoring conditions for better rest and sleep for their children.

**Keywords:** Sleep quality. Children. Parental perception.