



PARALLEL SESSIONS: ORAL COMMUNICATIONS

2nd World Congress of Health Research

Viseu – Portugal, 7-8 October 2014

1. CHILD AND ADOLESCENT HEALTH

FACTORS AFFECTING THE BMI IN ADOLESCENTS ATTENDING THE 2ND AND 3RD CYCLES IN PORTUGUESE SCHOOLS FROM VISEU

Raquel Guiné^a, Sofia Fernandes^a, José Abrantes^b, Ana Cardoso^c, Manuela Ferreira^d

^aCI&DETS/ESAV, Instituto Politécnico de Viseu; ^bCI&DETS/ESTGV, Instituto Politécnico de Viseu; ^cCI&DETS/ESEV, Instituto Politécnico de Viseu; ^dCI&DETS/ESSV, Instituto Politécnico de Viseu, Portugal.

Contact details: raquelguine@esav.ipv.pt

Introduction: Many studies show that the prevalence of overweight and obesity among children is rapidly increasing and developing into a major public health problem worldwide.

Objectives: To assess the Body Mass Index (BMI) in school children from 2nd and 3rd cycles in Viseu schools and identify the sociodemographic, behavioural and educational factors that are related to the BMI.

Methods: This is a quantitative descriptive and explanatory study with a convenience sample of 742 students attending schools of the 2nd and 3rd cycles in Viseu. The study was carried out by means of a questionnaire, which was produced for this study and previously submitted to the approval of the competent authority (DGE) for application in school context.

Results: It was found that some sociodemographic factors were associated with BMI, namely age, school year, practicing high competition sport, being federate in a sport or vegetarian diet. Regarding the educational factors associated with BMI these included only the seminars given at school by specialist in nutrition. Furthermore, a significant relation between BMI and SF was found, where SF represents the school sources of knowledge. Finally among the behavioural factors associated to BMI stood: learning in classes, playing in the open air, reading books and use of internet.

Conclusions: The results reinforce the need of adolescents to practice a healthy lifestyle and the role of family and school in providing the right information to help making right food choices.

Finally in the sample at study the incidence of overweight and obesity was not at all preoccupying, thus indicating that the efforts to provide a good education both at home and at school are adequate and must be carried on.

Keywords: Body mass index. School children. Food education.

QUALITY OF LIFE OF CHILDREN AND YOUNG PEOPLE WITH DIABETES MELLITUS TYPE I

Dulce Galvão, Ana Miguéns, Andreia Barreto, Inês Lemos

Nursing School of Coimbra, Portugal.

Contact details: dgalvao@esenfc.pt

Introduction: Diabetes Mellitus type I (DMT1) has become apparent in children/young people, a current and worrisome problem due to increasing incidence and prevalence. In addition to its consequences, it interferes with the quality of life (QOL), representing a public health issue.

Objectives: Characterize the QOL of children/young people with DMT1; identify factors influencing children/young people with DMT1 QOL; check DMT1 impact in the QOL of children/young people.

Methods: Systematic review of full text studies, published from January 2006 to June 2014 that included the QOL of children/young people with DMT1, children/young people with DMT1 with no other pathology and their parents, consulting CINAHL, MEDLINE, MediciLatina, Academic Search Complete, Psychology and Behavioral Sciences Collection and Scholar Google, using “quality of life”, “child”, “diabetes”. Studies of children/young people with DMT1 and other chronic illness were excluded. 546 articles have been identified, 11 selected and seven used.

Results: Parents perceive less QOL and greater impact in the life of children/young people than them. Children/young people QOL improve with the insulin pump and severe hypoglycemic crisis and ketoacidosis decrease. Gender and age group influence children/young people QOL. Severe hypoglycemic crisis are related to the parents' fear of hypoglycemia, affecting their and their children's QOL. Young people using complementary and alternative Medicine have better QOL than those using stress relief activities. Children with DMT1 have impaired school performance.

Objectives: Implement an integrated approach in the framework of the PRA at the Health Center of Caminha, maximizing coordination between the Community Care Unit, Personalized Health Care Unit and Family Health Units and intervention of School Health (synergies between programs).

Methods: Document analysis, group focus to diagnose the situation and construction of the participated action plan, involving different levels of prevention.

Results: The intervention was consensual in three axes: Providing care across the life cycle, School Health, Clinical Supervision, development of the information and monitoring system.

Conclusions: This is a project locally-based, built with the people, with 4 intervention levels of prevention.

Keywords: Evidence-based practice. Problems linked to alcohol. Empowerment.

15. HOSPITAL INFECTIONS

INSIGHTS ON THE EVOLUTION OF BACTERIAL SUSCEPTIBILITY EXPOSED TO MULTIPLE ANTIBIOTICS: A TRIENNIAL EPIDEMIOLOGICAL STUDY

Maria José Alves^{a,b,c,e}, Isabel C.F.R. Ferreira^c, João C.M. Barreira^{c,d}, Helena Pimentel^e, Manuela Pintado^a

^aCBQF-Escola Superior de Biotecnologia, Universidade Católica Portuguesa Porto; ^bCentro Hospitalar de Trás-os-Montes e Alto Douro, Unidade de Chaves; ^cCIMO/ESA, Instituto Politécnico de Bragança; ^dREQUIMTE, Departamento de Ciências Químicas, Faculdade de Farmácia, Universidade do Porto; ^eEscola Superior de Saúde/Instituto Politécnico de Bragança, Portugal.

Contact details: maria.alves@ipb.pt

Introduction: The emergence and propagation of multi-resistant bacteria in the hospital environment have become serious epidemiological and therapeutic problems. It is essential to update data regarding the susceptibility to the most commonly used antibiotics in each hospital, allowing obtaining specific resistance patterns to define the antibiotic therapy.

Objectives: This study aims to establish a profile of susceptibility vs. resistance for different microorganisms isolated during 3 years (2009-2011) using 3300 clinical isolates of different biological samples obtained from different hospital units belonging to Centro Hospitalar de Trás-os-Montes e Alto Douro (CHTMAD).

Methods: Identification and susceptibility tests were done using microdilution plate method and results were submitted to principal component analysis (PCA).

Results: Methicillin resistant *Staphylococcus aureus* (MRSA), *Enterococcus faecium* and coagulase negative *Staphylococcus* (CNS) seem to be the most concerning Gram positive microorganisms. For Gram negative species, despite the high resistance presented by Enterobacteriaceae producing extended-spectrum beta-lactamases (ESBL) to β -lactamic antibiotics, imipenem is still a good therapeutic option, as well as fosfomicin (for urinary infection). *Stenotrophomonas maltophilia*, *Pseudomonas aeruginosa* MR and *Acinetobacter baumannii*, are progressively acquiring higher resistance to these antibiotics, mainly to imipenem, cotrimoxazol and even aminoglycosides (tobramycin and gentamycin).

Conclusions: Overall, the developed resistance seems to be directly associated with antibiotics use and, therefore, studies centered in multi-resistance to antibiotics are crucial to establish dynamic protocols adequate to specific resistance vs. susceptibility profiles.

Keywords: Multidrug-resistant microorganism. Surveillance.

WILD MUSHROOM EXTRACTS AS INHIBITORS OF BACTERIAL BIOFILM FORMATION

Maria José Alves^{a,b,c,d}, Isabel C.F.R. Ferreira^c, Inês Lourenço^d, Eduardo Costa^a, Anabela Martins^c, Manuela Pintado^a

^aCBQF-Escola Superior de Biotecnologia, Universidade Católica Portuguesa Porto; ^bCentro Hospitalar de Trás-os-Montes e Alto Douro, Unidade de Chaves; ^cCIMO/ESA, Instituto Politécnico de Bragança; ^dEscola Superior de Saúde/Instituto Politécnico de Bragança, Portugal.

Contact details: maria.alves@ipb.pt

Introduction: Microorganisms can colonize a wide variety of medical devices, putting patients in risk for local and systemic infectious complications. These microorganisms are able to grow adhered to almost every surface, forming biofilms. The use of natural products has been successful in the discovery of new medicine, and mushrooms could be a source of natural antimicrobials.

Objectives: The present study reports the capacity of wild mushroom extracts to inhibit in vitro biofilm formation by multi-resistant bacteria.

Methods: Four Gram-negative bacteria biofilm producers (*Escherichia coli*, *Proteus mirabilis*, *Pseudomonas aeruginosa* and *Acinetobacter baumannii*) isolated from urine were used to verify the activity of *Russula delica*, *Fistulina hepatica*, *Mycena rosea*, *Leucopaxillus giganteus* and *Lepista nuda* extracts.

Results: The results obtained showed that all tested mushroom extracts presented some extent of inhibition of biofilm production. *Pseudomonas aeruginosa* was the microorganism with the highest capacity of biofilm production, being also the most susceptible to the extracts inhibition capacity ($\geq 50\%$). Among the five tested extracts against *E. coli*, *Leucopaxillus giganteus* (47.8%) and *Mycena rosea* (44.8%) presented the highest inhibition of biofilm formation. The extracts exhibiting the highest inhibitory effect upon *P. mirabilis* biofilm formation were *Sarcodon imbricatus* (45.4%) and *Russula delica* (53.1%). *Acinetobacter baumannii* was the microorganism with the lowest susceptibility to mushroom extracts inhibitory effect on biofilm production.

Conclusions: This is a pioneer study since, as far as we know, there are no reports on the inhibition of biofilm production by the studied mushroom extracts and in particular against multi-resistant clinical isolates.

Keywords: Clinical isolates. Biofilm. Mushroom extracts.

USE OF OZONE TO DISINFECT THE HANDS OF HEALTH PROFESSIONALS

Tatiane Quaresma^a, Adriana Fernandes^b, José Lima^b, Ricardo Navarro^b, Sheyla Oliveira^a, Richelma Barbosa^a

^aState of Pará University; ^bCamilo Castelo Branco University, Brasil.

Contact details: tatiane-quaresma@hotmail.com

Introduction: The practice of hand washing is very important to eliminate microorganisms from the skin, preventing the spread of disease, protect against the aggressions of the environment. The problem is the low adherence and neglect of health professionals in carrying out this practice. Ozone gas has interesting microbicide characteristics with efficient action on a large number of microorganisms, including resistant pathogens and does not induce microbial resistance.

Objectives: The aim of this study was to evaluate the use of ozone to disinfect the hands of health professionals.

Methods: After approval by the CEP (# 084/11) and accepted by the WIC health professional volunteers to UBS-Santarém (PA) standard procedure was performed (hand washing with soap), initial microbiological collection with sterile swab and processed