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Session 1: Citizenship in health

S1

Health literacy and health education in adolescence

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Health literacy, a more complex concept than knowledge, is a required capacity to obtain, understand, integrate and act on health information [1], in order to enhance individual and community health, which is defined by different levels, according to the autonomy and personal capacitation in decision making [2].
Medium levels of Health literacy in an adolescent population were found in a study conducted in 2013/2014, being higher in sexual and reproductive health and lower in substance use. It was also noticed that the higher levels of health literacy were in the area adolescents refer to have receipt more health information. The health literacy competence with higher scores was communication skills, and the lower scores were in the capacity to analyze factors that influence health. Higher levels were also found in younger teenagers, but in a higher school level, confirming the importance of health education in these age and development stage. Adolescents seek more information in health professionals and parents, being friends more valued as a source information in older adolescents, which enhance the importance of peer education mainly in older adolescents [3].
As a set of competences based on knowledge, health literacy should be developed through education interventions, encompassing the cultural and social context of individuals, since the society, culture and education system where the individual is inserted can define the way the development and enforcement of the health literacy competences [4]. The valued sources of information should be taken into account, as well as needs of information in some topics referred by adolescents in an efficient health education.

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Session 2: Evaluation & intervention in health

S2

The effect of a walking program on the quality of life and well-being of people with schizophrenia

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Schizophrenia is a serious and chronic mental illness which has a profound effect on the health and well-being related with the well-known nature of psychotic symptoms. The exercise has the potential to improve the life of people with schizophrenia improving physical health and alleviating psychiatric symptoms. However, most people with schizophrenia remains sedentary and lack of access to exercise programs are barriers to achieve health benefits. The aim of this study is to evaluate the effect of exercise on I) the type of intervention in mental health, II) in salivary levels of alpha-amylase and cortisol and serum levels of S100B and BDNF, and on III) the quality of life and self-perception of the physical domain of people with schizophrenia. The sample consisted of 31 females in long-term institutions in the Casa de Saúde Rainha Santa Isabel, with age between 25 and 63, and with diagnosis of schizophrenia according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). Physical fitness was assessed by the six-minute walk distance test (6MWD). Biological variables were determined by ELISA (Enzyme-Linked Immunosorbent Assay). Psychological variables were assessed using SF-36, PSPP-SCV, RSES and SWLS tests. Walking exercise has a positive impact on physical fitness (6MWD – $p = 0.001$) and physical components of the psychological tests ([SF-36] physical functioning $p < 0.05$; [PSPP-SCV] functionality $p < 0.05$ and SWLS $p < 0.05$ of people with schizophrenia. The walking program enhances the quality of life and self-perception of the physical domain and physical fitness of people with schizophrenia.

S3

Diagnosis and innovative treatments - the way to a better medical practice

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Methods
A quasi-experimental study, with evaluations before/after programme implementation, during one month. Thirty participants. Data collection tools: sociodemographic/clinical questionnaire; Barthel Index; Tinetti Test; WHOQOL-bref.
Results
The participants have a similar distribution regarding the sex variable; the average age was 69.67 years and the BMI was above the normal level on most cases. The dependency level was higher for the following activities: having a shower; getting dressed; using the stairs and moving to a bed/chair; lower mobility and quality of life perception levels before the rehabilitation programme implementation. After the implementation, there was significant evidence that the functional independency level for all the daily activities, mobility and balance and quality of life perception increased.
Conclusions
After the programme's implementation most of the participants were independent in their daily activities; they had a positive evolution concerning balance and mobility and they had a positive perception of their quality of life evolution. The only variable that had interference in the functional dependency level and quality of life social relations domain was the pain level. Implementing a rehabilitation programme with people with hip replacement, at their home, increases their capability to do daily activities, improves their mobility and balance and their quality of life perception.
Keywords
Hip replacement, hip arthroplasty

P52

Effects of Melatonin use in the treatment of neurovegetative diseases

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Population aging is one of the greatest contemporary public health challenges. With the change of demographic and population profile, effective therapies should be evaluated to provide better monitoring and modulation of therapeutic approaches aiming to minimize the effects of degenerative diseases.
This article studies the effects of melatonin in neurodegenerative disease and new possibilities for professional performance. It is a descriptive study, based on a literature review, using a qualitative approach and of an exploratory character. The literature review was based on the inclusion criteria: articles related to the subject, published between 2004 and 2014, containing the descriptors: melatonin, neurodegenerative diseases, Alzheimer's and Parkinson's. We opted for the content analysis technique for data analysis.
The study showed the effectiveness of the use of melatonin in the treatment of neurodegenerative diseases and its capacity to minimize the neurological effects of Alzheimer's and Parkinson's. Melatonin is able to interact with nuclear receptors, exerting direct genomic action, by altering the expression of apoptotic genes and thereby inhibiting cell death. It has further potential neuroprotective activity, with findings suggesting the effectiveness of this therapy.
The cellular and molecular mechanisms for this activity remain poorly understood. Melatonin administration within this new professional approach seems a viable practice to minimize the aggressiveness of neurodegenerative diseases. In conclusion, it was noted there are few professionals who have knowledge of the diversity of these existing therapeutic methods, and there is a lack of studies to establish this therapy practice.

Keywords
Melatonin, neurodegenerative diseases, Alzheimer, Parkinson

P53

Review of Phytotherapy and other natural substances in alcohol abuse and alcoholism

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Background
Alcoholism and alcohol abuse represent a worldwide problem, associated with considerable morbidity and mortality. A number of medicinal plants are reported to have preventive and therapeutic effects on alcoholism and alcohol abuse. The present review summarizes the most common natural substances used in alcohol use disorders.
Methods
All relevant literature databases were searched up to March 2015. The search terms were 'alcohol abuse', 'alcoholism', 'herbal medicine', 'natural products', 'phytomedicine'. Human, animal studies and reviews were included.
Results
Recently, some plants drew the attention of researchers, namely, danshen (Salvia miltiorrhiza Bge.), ginseng (Panax ginseng C.A. Mey.), ibogaine (Tabernanthe iboga Baill.), kudzu [Pueraria lobata (Willd.) Ohwi], and St. John's wort (Hypericum perforatum L.). Reduction of alcohol absorption appears to be a common feature among most of the cited plants. A standardized formulation of kudzu produced minimal side effects, and resulted in a modest reduction in alcohol consumption in young non-treatment-seeking heavy drinkers. Hypericum extract also reduced voluntary alcohol intake to a significant degree in rat models. Danshen has no efficacy data, but can reduce alcohol intake in animal models. Other plants like Banisteriopsis caapi (Spruce ex Griseb.) Morton, Lophophora williamsii (Lem. ex Salm-Dyck) J.M. Coult., and Thymus vulgaris L. are also suggested to have beneficial effects in alcohol use disorders. Carnosine, a natural dipeptide, seems to be a promising compound for the therapy of alcoholism.
Conclusions
Data suggest that some plants and other natural substances may constitute novel and effective approaches for treatment of alcohol use disorders.
Keywords
Alcohol abuse, alcoholism, herbal medicine, medicinal plants, natural products, phytomedicine

P54

Dietary programme impact on biochemical markers in diabetics: systematic review

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Background
Given the high prevalence of diabetes in the population and in the elderly, it's crucial to raise awareness of the need for people to change their eating habits and adopt healthier lifestyles. Nutrition interventions emphasizing the promotion of healthy eating have been shown to be an important point in Diabetes Mellitus treatment since it fosters a better glycaemic control. Objectives: To determine the effectiveness of the implementation of a dietary programme in the amounts of glucose and the lipid profile in patients with Diabetes mellitus.
Methods
A systematic review of the literature published in 2015 in PubMed/Medline database. It is intended to answer the research question: "What is the effectiveness of implementing a dietary programme on the blood glucose values and on the lipid profile of Diabetes Mellitus elderly subjects?" After applying the inclusion criteria 6 articles were selected from a total of 622.
Results
The implementation of a programme based on a higher dietary intake of polyunsaturated fatty acids, caloric restriction and intake of probiotics significantly improves glycaemic levels as well as the lipid profile in patients with Diabetes Mellitus.
Conclusions
It was found that the implementation of dietary programmes that aimed for a healthy and balanced diet are fundamental pillars in the treatment of diabetes mellitus, and its implementation should be fostered.
Keywords
Nutrition, diabetes mellitus, dyslipidaemia

P55

Biological approaches to knee osteoarthritis: platelet-rich plasma and hyaluronic acid

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Background
The increasing prevalence of knee osteoarthritis has become a worldwide concern. Furthermore, the articular cartilage lesions, due to lack of self-repair, represent a clinical challenge yet to overcome. In this sense, several biological approaches have emerged as an alternative treatment. Objective: Summarize the current scientific literature in which concerns the autologous platelet-rich plasma (PRP) and hyaluronic acid (HA) effectiveness in the clinical, radiological and functional outcomes in patients with knee osteoarthritis.
Methods
A comprehensive literature review was made to search for level I and II human studies that assessed that assessed the clinical, radiological or functional effectiveness of PRP or HA intra-articular injections on the knee osteoarthritis. The search was made from 2005 to 2015 and the databases used were: PubMed, Cochrane Library, Scopus, CINAHL and SPORTDiscus.
Results
Overall, the most of the studies reported that the autologous PRP intra-articular injections provided better results when compared to the HA intra-articular injections. Both biological approaches showed superior results when compared to placebo. However, when compared to each other, the autologous PRP showed better results concerning the reduction of pain and nonsteroidal anti-inflammatory medication intake, improving the quality of life and the knee functionality. Both biological approaches showed to be safe, without significant side effects.
Conclusions
These presented biological approaches showed to be safe and effective in reducing the symptomatology and increasing the quality of life in patients with knee osteoarthritis. Hence, it is suggested the implementation of intra-articular injections of autologous PRP and HA in the current clinical practice.
Keywords
Biological approaches, Knee, Osteoarthritis, Hyaluronic Acid, Platelet-Rich Plasma, Complementary Medicine

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Platelet-rich plasma and hyaluronic acid intra-articular injections for the treatment of ankle osteoarthritis

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Background
The burden associated with ankle osteoarthritis has been increasing in the elderly community. Several biological therapies have been suggested as an effective treatment to this pathological condition. Objectives: This study's aim was to assess the effectiveness of autologous platelet-rich plasma (PRP) and hyaluronic acid (HA) intra-articular injections in patients with ankle osteoarthritis.
Methods
A computerized database search from 2005 to 2015 was carried out on PubMed, Cochrane Library, Scopus, CINAHL and SPORTDiscus databases. It included human studies that assessed the effectiveness of autologous PRP or HA intra-articular injections in patients with ankle osteoarthritis. The exclusion criteria were as follows: reviews and meta-analyses; clinical commentaries or technical notes; single study cases; animal studies. The reference lists of the most relevant papers were screened for additional studies.
Results
Both therapies were shown to be safe and effective in reducing pain and improving clinical and functional outcomes when compared to control or placebo groups. There was a slight superiority of the autologous PRP intra-articular injections over HA, regarding pain reduction and improving ankle functionality. Several methodological limitations across the literature were pointed out, such as: different timing, concertation and preparation modes of the injections; different outcome scores used; different follow-up timings; lack of control groups or randomized allocation.
Conclusions
Autologous PRP and HA injections showed promising results in patients with ankle osteoarthritis. High evidence level studies (randomized controlled trials) are needed to assess clinical superiority between PRP and HA intra-articular injections to treat ankle osteoarthritis.
Keywords
Ankle, Osteoarthritis, Hyaluronic Acid, Platelet-Rich Plasma, Complementary biological medicines