

MEETING ABSTRACTS

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## Keynote lectures

S1

### The role of practice-based research in stimulating educational innovation in healthcare

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#### Background

Practice-based research is not uncommon in healthcare. In fact, the way nurses and doctors train is through extensive and intensive practice [1]. In other words, practice-based research has been used to gain new knowledge partly by means of practice and the outcomes of that practice [2]. Practice based research networks have also been gaining on importance in healthcare as ways of addressing research questions informed by practicing clinicians. They aim to gather data and improve existing practices of primary care [3], practice-based research is not only about gaining new knowledge via practice and improving existing practices.

#### Objective

In this presentation/paper I explain and highlight the role of practice-based research as an instrument for educational innovation in healthcare sciences.

#### Methods

I used interview excerpts and examples of projects related to healthcare at different universities of applied sciences in the Netherlands and Germany (also known as polytechnics in Portugal) to advance the role of practice-based research in educational innovation. This type of research is an integral part of teaching and curricular assignments in the healthcare settings in the Netherlands and Germany, and particularly at universities of applied sciences. I emphasized how practice-based research can improve and enrich the curricula, while at the same time, building necessary skills of future healthcare professionals and improving practices in already existing healthcare institutions.

#### Results

I show that practice-based research is in fact short term problem-oriented research which serves educational purposes by upgrading students' and teachers' skills and knowledge of the profession and dynamics in the work environment; which also has the potential to improve company products or design solutions and at the same time contribute to local and regional innovation in professions and profession related institutions [4-5]. Its role is multidimensional and dialectic insofar it serves multitude goals and is accomplished in dialogue among relevant stakeholders [6]. Practical suggestions for healthcare educators and practitioners in designing their curricula to incorporate the basic elements of this practice-based research are also offered in this presentation/paper.

#### Conclusions

Practice-based research is more than knowledge acquisition via practice. Its role and goals expand to enriching educational curricula with a more comprehensive engagement of external and professional

stakeholders, at the same time contributing to student soft and professional skill development and solving stakeholder problems or optimizing services and products at local or regional levels.

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#### Keywords

Practice-based research, Short term, Problem oriented, Healthcare, Universities of applied sciences.

S2

### Is sexuality a right for all? Sexual revolution in the old age

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#### Background

*"Do not you think your grandmother has sex? What happens with old gays? Why does a kiss between two elders tenderizes us and we do not think it is erotic"* (interview, Ricardo Iacub, 2018). It still impacts us, and what do we do with it? Do we let it pass? Do we encourage them?

Throughout the centuries, sex has been postulated as the impulse that gives life to people. This word, of Latin origin, has always aroused much interest in society and in all stages of life; but it must be differentiated from "sexuality", because it contemplates various aspects among which it is found; sex, identities and gender roles, eroticism, pleasure, intimacy, reproduction and sexual orientation [1-6]. Sexuality is a vital dimension that is present in all stages of life, at least since adolescence. It contributes significantly to health and quality of life and is, moreover, a right recognized by international organizations such as the World Health Organization (WHO) [4, 7-9].



Despite this, old age has traditionally been considered as a stage in which sexual needs would be absent, in which people are no longer interested or have the capacity to lead an active sexual life [3-8, 11]. Master and Johnson, two famous American sexologists, argued that older people should fight against a false belief, which considers that "sexual incompetence is a natural component of the aging process". This belief limits access to sexuality due to fear of failure, to consider that it is no longer correct, that it can be sick or perverse. The same authors pointed out that many of their patients had gone to priests, rabbis, doctors or psychologists and that they had received the answer "it is logical at their age" [3, 7, 10]

The studies carried out, in our country and internationally, show that the majority of the elderly, and especially those who have a partner, are still sexually active until very old ages [6-9]. The keys to continue carrying and enjoying a quality sexual life in old age should be recognized and admitted at a social level, and among others, we should start; to be free of prejudices and stereotypes that condemn the elderly to lack of desire, or that associate sexuality in old age to something dirty or morally condemnable. Stop associating youth and sexuality. Do not assume the possible problems or difficulties that may appear as irreversible barriers. Age influences the decrease in sexual activity and interest, but not in satisfaction. It is demonstrated that sex and sexuality play an important role in healthy and full aging [1-3, 6-9, 11]. Taking into account these premises, throughout the presentation will present the results of a study conducted in the Canary Islands among people over 65 years, users of senior centers whose main objective was; obtain data on sexual activity, sexuality and whether age-related pathologies have affected their sexual relations. Against these prejudices, older adults need, want and seek some kind of loving exchange; "Old people want and need to talk about sex", and also young people need to think that we have a lifetime to continue enjoying and experimenting with our sexuality.

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#### Keywords

Active Aging, Sexuality, Elderly, Sexual activity and benefits.

#### S3

#### Promoting independent living in frail older adults by improving cognition and gait ability and using assistive products – MIND&GAIT Project

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#### Background

Frail older adults are more susceptible to falls, fractures, disability, dependency, hospitalization and institutionalization [1]. Physical and cognitive decline, associated with frailty, potentiate the development of geriatric syndromes and lead to a decrease in self-care, depressive vulnerability and a decrease in quality of life [2]. Adapted physical exercise and cognitive stimulation allow the maintenance of physical and cognitive capacities, which is reflected in an improvement on the functional status of the elderly and in a reduction of associated comorbidities [3].

#### Objective

To promote independent living in frail older adults by improving cognition and gait ability and using assistive products.

#### Methods

It is planned to develop a combined intervention that will be composed by a digital cognitive stimulation program and an adapted physical exercise program. It is also being developed an auto-blocking kit mechanism for rolling walkers as an assistive product that could be used during the physical exercise program. A randomized-controlled trial will be developed to test the efficacy of the combined intervention in frail older adults. At the same time, a web platform will be developed and it will be used as a repository, providing digital intervention materials and results.

#### Results

Through the implementation of a multidisciplinary strategy, significant benefits are expected in the prevention and maintenance of physical and cognitive decline of the frail older adults. It is hoped that for frail older adults the combined intervention and its digital components would be synonymous of autonomy and improvement of their quality of life, contributing to active aging. The project, being based and tested in clinical practice, will guide health professionals, caregivers and general public to promote the independence of this population.

#### Conclusions

Cognitive interventions and physical exercise have impact on cognitive decline, a condition that assumes more importance once it is related with frailty in older adults. This multidisciplinary strategy gives the opportunity to older adults to act actively in their health through the spontaneous performance of cognitive and physical exercises available on the web platform. The components of the combined intervention will allow better reintegration of this population into society of today's world. By promoting research policies among educational institutions and health service delivery institutions, the MIND & GAIT project will make health care available to the frail elderly population more accessible to professionals, caregivers and general public.

#### Trial Registration

NCT03390478

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## Keywords

Aged, Cognitive decline, Cognitive stimulation, Frailty, Physical exercise.

## S4

### Electronic health records in Portugal

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In the digital transformation Era, there is an increasing need to provide systems capable of offering functionalities that allow the user a quicker and easier access to healthcare related information's. These digital services aim to provide access to more information, allowing the users to make better informed decisions.

In Portugal's National Health Service Portal (SNS Portal [www.sns.gov.pt](http://www.sns.gov.pt)), there are already several digital services available, the Citizen's Area aggregates these services for the user.

Citizen's Area main objectives is to facilitate communication and interaction between Citizens, Professionals and Health Institutions, allowing access to information in an integrated way, providing a better healthcare. Simple and accessible to all users, this area allows personal health information access in one place at any time, thus avoiding unnecessary commuting. This area has access monitoring and permission policy configurations, allowing the Citizen to view access history and configure access permissions to their health information, thus increasing control and management of their own personal health information.

Health Literacy is actively promoted through multiple initiatives, in dedicated areas accessible in SNS Portal and Citizen's Area.

## Keywords

Citizen's Area, SNS Portal, Healthcare, Digital Services, Literacy.

## S5

### Economic crisis and inequalities in the Southern European health systems

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## Background

Despite the overall increase in living standards and the introduction of universal health systems, many studies have identified persistent inequalities in all industrialized countries. The Southern European countries, namely Greece, Italy, Portugal and Spain, although the reforms of the 1970s and 1980s introduced universal national health services, social inequalities in health only became a critical issue in the late 1990s. However, the issue of health inequalities became a priority from 2010-2011, when (although with different degrees of severity) the four countries began to feel the first effects of the financial crisis. Various studies have identified the impact of the economic crisis on the most vulnerable population groups, with increasing rates of mental health disorders and a rise in suicides.

## Objective

After a brief contextualization of the welfare state in southern European countries and a characterization of health systems in Greece, Spain, Italy and Portugal, the main health inequalities are described, identifying the potential inequity induced by the reform processes undertaken and the current austerity policies implemented.

## Methods

The study resulted from a non-systematic literature review, based on the Scoping review proposal. A total of 74 publications were analysed.

## Results and Discussion

The analysis has highlighted common characteristics and trends in the Southern European health systems, as well as some significant differences between them. In the four countries, the social gradient (particularly in education, income, and work status) is the principal determinant factor in health inequalities. Another key aspect is the steady increase in out-of-pocket spending in health as a percentage of total health spending in all four countries, markedly in Greece and Portugal. The analysis has identified potential inequalities induced by the reform processes, as result of new relations between the public and private sectors in services provision. Another example of how health systems produce inequalities is the rising proportion of users' health expenses covered by co-payments and user fees. Geographic inequality in health is another critical issue, observed in all four Southern European countries. Finally, the recent debate in the international literature on the relationship between different welfare state regimes and health inequalities will be discussed.

## Conclusions

The crisis and austerity policies have greatly increased the level of dissatisfaction with healthcare provision in these countries.

## Keywords

Health Inequalities, Health Systems, Economic Recession, Southern European Countries.

## S6

### CBmeter- a new medical device for early screening of metabolic diseases

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## Background

Type 2 diabetes mellitus (T2DM) is a highly prevalent disease worldwide which is asymptomatic in about 44% of patients being critical to search for new ways of early diagnosis. Recent studies have demonstrated that the etiology of this disease may be associated with alterations in the function of the carotid body (CB), a chemosensor organ located within the bifurcation of the carotid artery. In animal models of metabolic syndrome, it was observed that the CBs are overactivated, underlying diseases such as obesity, hypertension and T2DM. This discovery provided a new paradigm in the neuroendocrinology field, suggesting that diagnostic function of the CBs has predictive value for the development of metabolic diseases. Despite this fact, it is not common in clinical practice to look at the CBs as organs associated with endocrine dysfunction and we believe this is probably due to the nonexistence of a user-friendly, portable medical device that diagnosis the function of the CBs.

## Objective

The general aim of this work is to develop a novel device that evaluates the function of the carotid bodies - a CBmeter. We are also developing a standard test meal to be used as a physiological dynamic test during CBmeter utilization.