

PLENARY LECTURES

Wednesday, 17 May 2023

PL1 – Obesity and Inequality: where are we and how should we proceed?

PL1

Social justice and health equity

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Taking action to reduce health inequalities is a matter of social justice. In developing strategies for tackling health inequalities we need to confront the social gradient in health not just the difference between the worst off and everybody else. There is clear evidence when we look across countries that national policies make a difference and that much can be done in cities, towns and local areas. But policies and interventions must not be confined to the health care system; they need to address the conditions in which people are born, grow, live, work and age. The evidence shows that economic circumstances are important but are not the only drivers of health inequalities. Tackling the health gap will take action, based on sound evidence, across the whole of society.

Friday, 19 May 2023

PL2 – Obesity and Sustainability

PL2

Innovative and sustainable approaches to tackling obesity, other noncommunicable diseases and their risk factors in the WHO European Region

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Introduction: Obesity remains a significant public health issue in the European region, affecting 60% of adults and nearly 30% of children. The WHO European Office for the Prevention and Control of Noncommunicable Diseases (NCD Office) is identifying and promoting innovative and sustainable approaches to tackle obesity and other NCD. In October 2019, the NCD Office hosted an expert meeting to explore how to promote healthy and sustainable diets (HSD), which led to the establishment of workstreams. This was followed by an expert meeting in December 2022 to map the linkages and co-benefits between NCD prevention and the climate change agenda. More widely, the NCD Office leads several innovative projects related to strengthening implementation research capacity and providing practical tools on infant and young child nutrition.

Methods: Expert meetings have been held with key stakeholders to discuss and explore data availability, key linkages and gaps in research and policy

implementation. For HSD, these laid the foundation for the development of seven workstreams to address its multidimensional nature. For climate change, a systems approach was employed to map the links between climate change and NCD in collaboration with Queen's University, Belfast in the first expert meeting, with future collaboration between the group of experts agreed during this initial meeting.

Results: For HSD, initiatives and outputs have comprised a suite of tools to strengthen surveillance and build capacity of Member States, enabling them to create their own national HSD packages. To date, these have included a new modelling tool for the analysis of the health, environmental and affordability implications of diets and dietary change, a food procurement manual for officers at public institutions and a manual for systems thinking. For climate change and NCD prevention, an initial causal loop diagram has been produced. Causal links identified as being associated with obesity include transportation, air pollution, heatwaves and coldwaves via impacts on physical activity levels. This emerging programme will respond with a solutions-oriented map which can be used as an advocacy tool. Commonalities identified between the HSD and climate change workstreams is the need to develop nutrition and sustainability indicators, which will also be explored further.

Conclusion: With repeated statements made by Member States to WHO governing bodies to link the climate change agenda with NCD and/or obesity, this remains a priority area to develop further. This requires further analysis to elucidate the role of wider systems such as urban planning and One Health. The mapping will highlight synergies between obesity and sustainable development goals and promote the identification of co-benefits, win-win, and sustainable solutions. This will facilitate policy development and identify entry points to advance this agenda.

PL3 – Clustering of Obesity Phenotypes - Learnings from Diabetes

PL3

Precision medicine in diabetes and obesity

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People are all different, and this is no different when we consider people living with diabetes and obesity, yet the current approaches to their management tend to treat everyone the same. The field of precision medicine aims to recognise these differences – whether at the level of their phenotype or at the molecular level. Faced with multiple, and increasing, treatment options as well as increasing healthcare costs there is a clear need to target therapy to maximise benefit and reduce harm for every patient with diabetes and obesity.

This talk will discuss advances in precision medicine in diabetes and obesity. I will highlight recent work on how phenotypic variation matters, how we can cluster phenotypes and genotypes to inform on this variation, and the limitations of clustering. I will provide a framework for how we are implementing precision medicine in diabetes clinical care in Tayside, Scotland and how this might translate to care of people with obesity.

Physical activity, strength training and nutritional support in patients with metabolic syndrome from a Northeast Portuguese primary health care: A pilot community intervention program

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Introduction: The prevalence of Metabolic Syndrome (MetS) has been increasing exponentially in the Portuguese population. Primary prevention using physical activity (PA), exercise and healthy lifestyles seems to be limited. Thus, current study aims to present the design and preliminary findings of a pilot community intervention for patients with MetS.

Methods: A randomized controlled trial was conducted between April and July 2022 with patients with MetS, from a Northeast Portuguese primary health care. Eight participants completed the three-month intervention program, 6 women (51.0±6.4 years) and 2 men (46.5±4.9 years). The program included: (1) evaluation and prescription of PA (steps/day and floors/day); (2) nutritional and dietary support; (3) strength training sessions; (3) blood testing; (4) anthropometric and body composition assessment. A pre- and post-intervention follow up was conducted. Garmin® F 745 were used for PA prescription and assessment. PA targets per day were: number of steps ≥10 000; uphill walking ≥10 floors; and minutes of intensity ≥150 per week. Nutritional and dietary evaluation was recorded by completing the food frequency questionnaire with subsequent recommendation of changes to healthy diet. The designed strength training program was: (i) frequency of 2x/week; (ii) 8 to 10 exercises, in order to work the main muscle groups; (iii) 2 sets of 10 to 12 repetitions; (iv) 60 to 70% of one maximum repetition. Blood samples evaluated glycated hemoglobin (HbA1c), fasting glucose (FG), triglycerides (TG), high-density lipoprotein (HDL) cholesterol, total cholesterol (TC), systolic (SBP) and diastolic blood pressure (DBP). Body weight (kg), lean body mass (kg) and fat mass percentage (%) was evaluated by bio-impedance scale (Tanita MC 780-P MA®). MetS parameters were defined by joint interim statement (JIS) criteria (Alberti et al, 2009).

Results: Regarding PA parameters at the end of the three-month program, the average number of daily steps was 11 818, the number of daily floors was 15.35 and moderate to vigorous PA was 253 minutes/week. An improvement in pre- and post-intervention blood concentrations and pressure was observed, namely in HbA1c (-7.4%±15.2), FG (-4.9%±14.4), HDL (-4.8%±9.7), TC (-1.9%±19.9), SBP (-15.6%±10.7) and DBP (-12.7%±9.3). All participants registered a weight loss (-3.4%±2.0), with an increase in lean mass (-4.5%±2.0) and a decrease in fat mass (-8.7%±6.3). Except for one participant, all improved in heart rate recovery after exercise (19.3%±28.2), suggesting an improvement in cardiovascular capacity.

Conclusions: The effect of the implemented pilot community intervention program was greater in the participants who followed the program more rigorously. Additionally, the strength training may have been important in increasing lean body mass. The inclusion of PA, strength training and nutritional support in primary health care, through a supervised program, seems to be a key strategy to reduce the risk associated with MetS and delay the complications associated with cardiometabolic diseases.

Eating behavior features in persons with cardiac pathology

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Background and Aims: Nowadays there are a lot of radical dietary shifts in many developing nations are supplanting traditional patterns of eating on diet high in animal products and refined carbohydrates and low in whole grains, fruits, and vegetables. Additionally, the proportion of elderly is increasing trend is paralleled by an increase in chronic diseases, such as cardiovascular disease. A limited number of studies have investigated the evaluation of eating behavior in the group of patients with cardiac disease. The aim of this study was validation of the Dutch Eating Behavior Questionnaire (DEBQ) in group of patients with cardiac disease. **Methods:** 137 patients who received preventive counseling in the hospital from February 17, 2022 to August 16, 2022 were consecutively included in the study. The median age was: 61.00 [48.00; 67.00] years, 60 men (44%) and 77 women (56%). The median of body mass index was 34.34 [32.01;36.98]. The Dutch Eating Behavior Questionnaire scoring was used to assess the characteristics of eating behaviors among the group of patients with cardiac disease.

Results: Eating disorders were identified in 98 (71.5%) patients, with 34 (24.8 %) patients having two combinations of types of deviation. There were also patients who had 3 types of disorders at once (12 (8.8%)). Figure 1 shows that the emotional type of eating disorder is often predominant in women (Figure 1), according to the DEBQ questionnaires (***) p<0.001).

Conclusion: It was identified the prevalence of the emotional type of eating disorder in women which help to clinical psychologist to create the support group by DEBQ test.