



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## Posters

*Public Health 2017*

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## FACTORS THAT INTERFERE WITH WAITING TIME, IN ORDER TO GET MEDICAL ATTENTION AT THE EMERGENCY DEPARTMENT AT GENERAL HOSPITAL IN ENSENADA, MEXICO

**David Sergio Salas Vargas<sup>a</sup>, Jeannette García Martínez<sup>a</sup>, Adriana Carolina Vargas-Ojeda<sup>a</sup> and Lynnette Amparo Velasco Aulcy<sup>a</sup>**<sup>a</sup>Universidad Autonoma de Baja California, Mexico

Records in the Emergency Department at the General Hospital in Ensenada, Mexico, indicate that there are ways to improve waiting time at the Emergency Room.

**Objective:** To identify the factors that interferes with waiting time, in order to get medical attention at the Emergency Department at General Hospital in Ensenada, Mexico.

**Methods:** Retrospective descriptive statistical analysis of waiting times as a quality indicator were performed based on records of patients that attended the Emergency Department from January 2011 to December 2012.

**Results:** Average wait times in 2011 were 37 min and it decreased to 33 min in 2012, even if there was an increase of 2,838 in the number of patients in 2012 compared to the year before. The sex related factor didn't have an influence in wait time. The type of emergency and the way that patients arrived at the hospital did have influence in waiting time.

**Conclusion:** Urgency services require a Triage attendance process by qualified personnel in the Emergency Department at the General Hospital in Ensenada, Mexico to establish well-identified priorities, waiting time in order to act efficiently as well as to determine strategies for continual improvement processes to be in agreement with Mexico's official standard norm: NOM-027-SSA-2013. Now that we know real factors that have partial influence in waiting time there will be applied action strategies that could benefit patient attendance.

### Biography

David Salas-Vargas has completed his Ph.D. at the age of 35 years at the Autonomous University of Baja California (UABC), Mexico. He was the Dean of the School of Health Sciences for almost eight years. He is currently the Coordinator of Postgraduate and Research Studies at the School of Health Sciences at UABC and lecture Epidemiology to undergraduate and postgraduate students. He has published his reasearch works in reputed journals.

salasd@uabc.edu.mx

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## KNOWLEDGE, ATTITUDE AND PRACTICES REGARDING COTTON DUST EXPOSURE AMONG TEXTILE WORKERS IN KARACHI, PAKISTAN – FINDINGS FROM THE MULTITEX STUDY

**Natasha Shaukat<sup>a</sup>, Hasan Nawaz Tahir<sup>a</sup>, Mohammed Moizul Hassan<sup>b</sup>, Tanzil Jamali<sup>a</sup> and Asaad Ahmed Nafees<sup>a</sup>**<sup>a</sup>Aga Khan University, Pakistan<sup>b</sup>Karachi Medical and Dental College, Pakistan

**Methods:** This cross-sectional study involving 300 male workers, from seven textile mills in Karachi, was conducted from September–December 2015. A 55-item structured questionnaire was developed and pretested, to determine knowledge (31 items), attitude (10 items) and practice (14 items) scores. Independent sample t-test and ANOVA tests were applied to calculate mean differences in KAP scores for categorical variables; while Pearson correlation was used for continuous variables.

**Results:** Mean age of the participants was 31(±9.5) years with majority belonging to Urdu-speaking ethnicity (39%; n=118). About 90% (n=269) of the workers had secondary or less education. Mean percentage scores for KAP was found to be (33.3%), (32%), and (20.4%) for K, A, P respectively. Higher educational status, dyeing and spinning sections of the mill and type of mill were found to be strong predictors of high KAP scores (p<0.01). We also found significant differences in KAP scores related to job designation and ethnicity (p<0.01). The increase in working hours per day (r=-0.18 for K, -0.14 for A, and -0.27 for P; and p<0.01) and working days per week (r= -0.13 for K, -0.14 for A and -0.09 for P; and p<0.05) were negatively associated with the KAP scores.

**Conclusion:** We found higher KAP scores with better education and those working in dyeing or spinning section. However, increased working hours and days per week had a negative effect on KAP scores. This study documents the poor KAP of textile workers and calls for provision of occupational health and safety trainings.

### Biography

Natasha Shaukat is doing her fellowship from the department of Community Health Sciences. Her areas of interest within Public Health are Environmental and Occupational Health. Currently she is involved in an interventional study which aims at improving respiratory health of textile workers. She is also doing her dissertation in estimating the prevalence of musculoskeletal disorders among construction workers in Karachi, Pakistan. She had previously worked in Multicentre study, which aimed at determining the prevalence of COPD in Karachi, Pakistan.

natasha.shaukat@aku.edu

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## VACCINATION OF INFLUENZA ON COLLEGE CAMPUSES (VICC): A STUDY TO IDENTIFY THE CORRELATION OF DETERMINANTS ON INFLUENZA VACCINATION RATE DISPARITIES

**J Eaton\***

\*Saginaw Valley State University, USA

A majority of college students receive the influenza vaccination at a significantly lower rate than do other demographic groups. Due to highly populated environments on college campuses, college students are more susceptible to contracting influenza and participating in the spread of disease. Influenza vaccination is an effective method to minimizing this increase in risk. However, in spite of this, low rates of college students receive yearly vaccination. Therefore, understanding the correlation between determinants and influenza vaccination rate disparities among college students is necessary in order to determine future methods of addressing such rates in order to help prevent future spread of disease within a particular population. A literature review will be conducted to identify potential determinants that may play a role in influenza vaccination rate disparities among college students such as level of parental education, household income, and employment status. A questionnaire will then be compiled to include basic demographical information, as well as questions related to the determinants identified in the literature review. A random sample of college students (n=400) will then be recruited to participate and complete the questionnaire. It will be dispersed using the following methods:

1. University resources such as email lists
2. Online forums of communication
3. In person contacts

Findings will then be analyzed to distinguish the level correlation among determinants related to influenza vaccination rates among college students.

### Biography

Jarrod Eaton is a senior undergraduate student who will be graduating from Saginaw Valley State University located in Michigan this upcoming May of 2017. Eaton has been a part of several research projects during his undergraduate career. Meanwhile, he has also served a term as the student body president at SVSU. Eaton plans to attend graduate school in the Fall of 2017 to pursue a Master's Degree in Global Health Epidemiology. He will then go on to pursue a career working as an epidemiologist with organizations such as the Centers for Disease Control and Prevention and the World Health Organization.

jleaton@svsu.edu

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## TO DETERMINE HOW FREQUENTLY PREGNANT ASTHMATICS ARE SENSITIVE TO FOOD AND INHALATION ALLERGENS

Nasrin Fazel<sup>a</sup>, Michael Kundi<sup>a</sup>, Erika Jensem-Jarolim<sup>a</sup>, Isabella Pali<sup>a</sup>, Asghar Kazemzadeh<sup>a</sup>, Mojtaba Fattahi<sup>a</sup>, Habibolah Esmaily<sup>a</sup>, Roya Akbarzadeh<sup>a</sup> and Raheleh Ahmadi<sup>a</sup>

<sup>a</sup>Masshad Medical University, Iran

**Background:** Allergens are one of the causes of asthma, i.e. an atypical immune reaction which is prompted by environmental allergens and mediated by IgE antibodies. The present study aims to identify the prevalence of inhalation and food allergens among pregnant Iranian asthmatics.

**Methods:** Euroimmun tests were performed to identify the prevalence of sensitivity towards allergens among pregnant asthmatics. A total of 1,603 women were selected from those who had visited Mobini Hospital in Iran August 2014-April 2015. We drew blood samples from these women and, postpartum, from their infants. These were used to measure IgE and RAST to inhalation and food allergens. Descriptive and comparative statistical analyses were performed. The results were analyzed using SPSS version 20.

**Results:** A total of 1,603 pregnant women referred to Mobini Hospital –Iran were included in the analysis. Thirty-four pregnant asthmatics were confirmed as having asthma. The place of residence showed a statistically significant correlation with asthma status in two groups of cohorts, ( $p = 0.008$ ). There was a statistically significant association between atopy and wheeze in special place and wheeze exercise following Fischer exact  $p=0.04$ ,  $p=0.004$ . The seafood mix 3 was the most frequent allergen 10(29.4%) detected in asthmatic maternal blood samples, followed by peanut 6(17.6%), and rough pigweed 5 (14.7%), respectively. All other allergens varied from 1(2.9%) to 4(11.8%).

**Conclusion:** Our results suggest that there is no association of some inhalation and food allergens with maternal and fetal IgE. Forthcoming studies should take this into account, i.e. trying to detect different local allergens that perhaps have a potential maternofetal transfer.

### Biography

Nasrin Fazel is a Ph.D. student in the Medical University of Vienna Public Health Department, is a graduate of Masshad Medical University in Iran. She trained in midwifery and midwifery education at the faculty of Jorjani Midwifery and nursing in Mashad Medical University, Iran. She is Academic Member at the Medical University of Sabzevar. Fazel worked as Student Research Committee Member at Medical University of Sabzevar, and Research Council. Also, is traditional medicine Committee Member. She got selected two times as a superior researcher and four times selected as a superior midwife. She wrote the following books protocol of midwifery (essay and translate), obstetrics and Gynecology (translate to Farsi with their colleague). She had published articles like The effect of spearmint oil on pain severity after cesarean Prevalence and risk factors urogenital symptoms in women of menopausal symptoms in Sabzevar, Comparative effect alone honey and mix with chlortrimazol on vaginitis Candidacies, The effect of cumin oil on flatulence severity cesarean.

n1242078@students.meduniwien.ac.at

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## TOBACCO USE AMONG LONG ROUTE BUS DRIVERS AND STAFFS OF DHARAN, EASTERN NEPAL: A KAP STUDY

Giri S<sup>a</sup>, Chaudhuri S<sup>a</sup>, Yadav AK<sup>a</sup>, Yadav AK<sup>a</sup>, Shrestha SR<sup>a</sup> and Baral DD<sup>a</sup><sup>a</sup>B.P. Koirala Institute of Health Sciences, Nepal

**Introduction:** Tobacco use (smoking and smokeless) remains a major cause of preventable deaths worldwide. WHO estimated that about 25% of Nepalese population smokes. In Nepal it is widely believed that smoking and smokeless tobacco use among bus drivers and staffs is very high.

**Objectives:** The main objectives of the study were to estimate the prevalence, assess the knowledge, attitude and practice regarding tobacco use among bus drivers and staffs.

**Materials and Methods:** A descriptive cross sectional study was conducted in Dharan bus station among 300 bus drivers and staffs of long route bus service fulfilling the inclusion criteria and they voluntarily responded with self-administered questionnaire.

**Results:** It was observed that the prevalence of tobacco consumption among the responders (96.3%) widely varied with prevalence among other study groups. More than half (52%) of the tobacco users initiated the use of tobacco at the age of less than 18 years. 'Peer pressure', 'influenced by smoking habit of family member(s) or relative(s) were the main reasons for initiation while 'like the intoxicated feeling' (67.5%), 'Feeling Mature' and 'relief from stress' were the reasons for using tobacco. Concurrent use of alcohol or illicit drug was also noted in 70% of the tobacco users. 97% of the responders claimed they knew about the injurious effect of tobacco use, diseases cited being respiratory, cancer and cardiac, but only 48.9% knew this before initiating its use. A 90% of them would not had used tobacco if they had prior knowledge of its injurious effects and 95% of current tobacco users would like to seek medical help in quitting tobacco if available. More than three fourth of tobacco consumers (75.8 %) had tried to quit it, among whom two third had tried more than 4 times. The main reason for quitting attempt was due to 'health issue' (65.3%) followed by 'Pressure from family member/s', 'Economic burden' and 'not liking use'. Among those who tried only about 20% succeeded in quitting its use. The main reason for failure was feeling of addiction (69.7%). Increasing age, tobacco consuming peers, smoking habit of family members/relatives, nicotine dependence and fashion were seen to have directly associated with tobacco consumption.

**Conclusion:** Our study concluded that the prevalence of tobacco consumption among bus drivers and staffs was very high compared to any other study groups. Government policies to ban free sale of tobacco to minor age group, on tobacco advertisement and promotion though have been amended in law, are the issues to be properly as well as strictly implemented. Targeted programs such as nicotine replacement clinics would be highly effective for such vulnerable group with desire to quit tobacco use with medical help.

### Biography

Saroj Giri is an Associate Professor in Department of General Practice and Emergency Medicine at B.P. Koirala Institute of Health Sciences, Dharan, Nepal.

dr.sarojgiri@gmail.com

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## THE RELATIVE CONTRIBUTION OF VARIOUS MECHANISMS OF GLUCOSE ABSORPTION IN THE SMALL INTESTINE *IN VIVO*

Nikita A Gruzdkov<sup>a</sup> and Luidmila V Gromova<sup>a</sup><sup>a</sup>Pavlov Institute of Physiology, Russia

**Statement of the Problem:** Glucose is a key substance that involved in energy metabolism. Understanding of mechanisms of its absorption in the small intestine is important for health. In recently, a remarkable progress has been achieved in this field, however the question about relative contributions of the active transport via SGLT1 and the facilitative diffusion via GLUT2 in glucose transfer across the apical membrane of enterocytes, remains debatable. To solve it, adequate analytical approaches are needed to assess the contribution of each of these mechanisms in the *in vivo* experiments.

**The purpose of this study:** To develop mathematical approaches for assessing the contributions of different mechanisms of glucose absorption in the *in vivo* experiments.

**Methodology & Theoretical Orientation:** These approaches are based on the mathematical models, developed by us earlier, that simulate absorption of monosaccharide's in the isolated part the small intestine *in vivo*. The approaches include an analysis of kinetics of glucose and galactose absorption from their mono and two-component solutions, at various concentrations of the substrates.

**Results:** In the experiments on rats it has been shown that at glucose concentration of 75 mm in the intestinal lumen, a ratio of the active transport via SGLT1 to the facilitative diffusion via GLUT2 was 2.5 - 3.5 at the normal (low) regular carbohydrate load on the small intestine, and was increased to 7.0 in the case of the high load.

**Conclusion and significance:** In the case of normal and high glucose concentrations in the lumen of the intestine, its absorption is mainly due to active transport through SGLT1. The results may be useful in developing new therapeutic strategies aimed to reduce the negative effects on the body of widespread pathological conditions in the world such as obesity, metabolic syndrome, and type 2 diabetes mellitus.

### Biography

Gruzdkov Nikita is student of the Faculty of the Info communication Technologies in the St. Petersburg University ITMO (third year). At present he undergoes training in the Laboratory of Nutrition Physiology in Pavlov Institute of Physiology, RAS. He gets experience in development of mathematical approaches for analyzing kinetic characteristics of mechanisms (active transport and facilitative diffusion) of glucose absorption in the small intestine *in vivo*. This approach may provide new important data for the theory and practice.

nikgruzdkov@gmail.com

### Notes:



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## INTESTINAL DIGESTION OF CARBOHYDRATES AND GLUCOSE ABSORPTION DEPEND ON THE DOSE AND DURATION OF GLUCOCORTICOID ADMINISTRATION

**Alexandr S Polozov<sup>a</sup>, Elizaveta V Savochkina<sup>a</sup>, Andrey A Gruzdkov<sup>a</sup>, Nadezhda M Grefner<sup>a</sup>, Yulia V Dmitrieva<sup>a</sup>, Anna S Alekseeva<sup>a</sup> and Luidmila V Gromova<sup>a</sup>**<sup>a</sup>Pavlov Institute of Physiology, Russia

**Statement of the Problem:** Carbohydrates, particularly glucose, play a key role in energy metabolism. Despite the importance of intestinal carbohydrate digestion and glucose absorption for health, the impact of glucocorticoids (endogenous or exogenous released during stress) on these processes has been poorly documented. The purpose of this study is to examine on rats the effect of corticosterone on activities of intestinal carbohydrases, glucose absorption and levels of the glucose transporters SGLT1 and GLUT2 in the apical membrane of the enterocytes, depending on dose of the hormone and on the duration of its administration.

**Methodology & Theoretical Orientation:** The rats were daily administered corticosterone (4 and 12 mg/kg) or solvent of the hormone (control). Five hours or three weeks after administration of the substances, activities of the intestinal enzymes were determined. Glucose absorption was regularly assessed using the test, based on measurements of the rate of free consumption of concentrated glucose solution by fasted rats. Levels of glucose transporters SGLT1 and GLUT2 in the apical membrane of the enterocytes were determined using immunocytochemistry and confocal microscopy.

**Findings:** Corticosterone administration has enhanced absorption of glucose in the small intestine. The effect has depended on dose of the hormone, but not on duration of its administration. At 12 mg/kg, there was an increase in activities of glucoamylase and maltase in the intestinal mucosa and in the level of transporter GLUT2 (but not SGLT1) in the apical membrane of the enterocytes.

**Conclusion & Significance:** The state of hydrolytic and transport systems of the small intestine depends on the dose and the duration of administration of glucocorticoids. The data obtained are important for assessment of functional status of the small intestine after the short and long injections of glucocorticoids at various doses in clinic or in the case of stress of varying severity and duration.

### Biography

Polozov Alexandr S. graduated in 2016 from the St. Petersburg State Academy of Veterinary Medicine in the specialty veterinarian. Currently enrolled in graduate school (first year) and performs a thesis on "The influence of type 2 diabetes mellitus on glucose absorption and membrane enzymes involved in the digestive and protective function in the small intestine." He has experience in veterinary clinics: observation of animal behavior under stress and after the introduction of glucocorticoids for therapeutic purposes, assessment of functional parameters of the animal organism. He can use the method for assessing intestinal glucose absorption ability in vivo (in the absence of anesthesia and surgical trauma), as well as biochemical methods for determining the activity of intestinal digestive enzymes and blood cell polarization.

polozovalexandr20@gmail.com

### Notes:



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## COMPARISON OF AUTOPROBIOTIC AND PROBIOTIC IN RESTORING INTESTINAL MICROBIOTA AND DIGESTIVE FUNCTION AFTER EXPERIMENTAL DYSBIOSIS IN RATS

Elizaveta V Savochkina<sup>a</sup>, Yulia V Dmitrieva<sup>a</sup>, Anna S Alekseeva<sup>a</sup>, Luidmila V Gromova<sup>a</sup>, Maria P Kotyleva<sup>b</sup>, Elena I Ermolenko<sup>b</sup> and Alexandr N Suvorov<sup>b</sup><sup>a</sup>Pavlov Institute of Physiology, RAS, Russia<sup>b</sup>Institute of Experimental Medicine, Russia

**Statement of the Problem:** The interplay between the intestinal microbiota and epithelium is an important determinant of host health and nutritional status. Although probiotic bacteria are widely used to prevent and treat the intestinal dysbiosis, their effects on the microbiota and the digestive system compared with indigenous (autoprobiotic) strains have not been investigated. This study aims to evaluate the condition of microbiota and the activity of intestinal enzymes after correction of experimental dysbiosis in rats using probiotic (*Enterococcus faecium* L3) and autoprobiotic (12 strains of *E. faecium*).

**Methodology & Theoretical Orientation:** The experimental dysbiosis in rats induced by administration of ampicillin and metronidazole. Then rats were getting probiotic, autoprobiotic or phosphate buffer (PBS, control-2). In control-1, after administration of water, rats obtained PBS. At the end of the experiment, samples of epithelium and chyme were analyzed biochemically. Fecal samples were studied bacteriologically and by real time PCR.

**Findings:** After using probiotic or autoprobiotic, dyspeptic symptoms and microbiota disorders disappeared faster than in control-2. Autoprobiotic, but not probiotic, promoted bifidogenic effect and increased populations of *E. coli* and *Fecalobacterium sp.* in feces. Aminopeptidase N activity decreased in the epithelium or tended to decrease in the chyme after use autoprobiotic. Tissue-nonspecific alkaline phosphatase activity, separated from the total activity by inhibiting levamisole, tended to decrease in the epithelium after use autoprobiotic, and Intestinal alkaline phosphatase – in the epithelium and the chyme after use autoprobiotic or probiotic. Maltase activity in the chyme tended to increase after use autoprobiotic, but tended to decrease after use probiotic.

**Conclusion & Significance:** Specific effects of probiotic and autoprobiotic enterococci on intestinal microbiota and digestion have been demonstrated. The results may be useful for development of a new therapeutic strategy based on autoprobiotic usage in the correction of intestinal dysbiosis. The work was supported by the Russian Science Foundation Number: 16-15-10085.

### Biography

Savochkina Elizabeth V was graduated in 2016 from the Faculty of Biology in the St. Petersburg State University with the specialization in biology. During undergraduate and graduate studies she gained research experience in the field of histology at the Department of Histology, Cytology and Immunology. In addition, she attended a one-year course of "Bioinformatics for Biologists" in the St. Petersburg National Research University of RAS. She is currently working as a junior researcher of Laboratory of Nutrition Physiology in the Pavlov Institute of Physiology, RAS. She has experience of scientific work with laboratory animals, in techniques of immunofluorescence and confocal microscopy in identification of the presence of glucose transporters SGLT1 and GLUT2 in the apical membrane of the rat enterocytes.

lisasav108@gmail.com

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## EFFECTS OF BARIATRIC SURGERY ON MYOCARDIAL RESISTANCE TO ISCHEMIA AND REPERFUSION INJURY IN THE EXPERIMENT

Galina V Semikova<sup>a</sup>, Oleg V Kornushin<sup>b</sup>, Elena E Davydova<sup>a</sup>, Lucas G Carelli<sup>a</sup>, Alexander E Neumark<sup>b</sup>, Oxana Tkachuk<sup>a</sup>, Alexander S Polozov<sup>c</sup> and Iana G Toropova<sup>b</sup>

<sup>a</sup>First Pavlov State Medical University of St. Petersburg, Russia

<sup>b</sup>Federal Almazov North-West Medical Research Centre, Russia

<sup>c</sup>Pavlov Institute of Physiology, RAS, Russia

**Statement of the Problem:** Obesity, metabolic syndrome and diabetes mellitus type 2 are the most common pathological states in the world. Although bariatric surgery is widely used to reduce the adverse effects, caused by these states, its effects on cardiovascular system remain in question. To solve this problem, studies in animals are needed to evaluate the effects of various bariatric procedures on hemodynamic in normal and pathological states. The aim of this study is to compare in experiments on rats the impact of various bariatric procedures on myocardial resistance to ischemia and reperfusion injury.

**Methodology & Theoretical Orientation:** The rats were subjected to the surgeries for proximal stomach resection, ileal interposition and laparotomy. 5-6 Months after the surgeries, isolated hearts of the animals were perfused by Crebs-Henseleit solution *in vitro* according to Langendorff. Coronary flow, systolic and diastolic blood pressure, heart rate and contractile function were measured before ischemia period and during perfusion period. To identify areas of necrosis following ischemia, the hearts were incubated with 2,3,5-triphenyltetrazolium chloride. The necrosis area was evaluated on digital photographs by manually contouring the differentially colored left ventricle subsets.

**Findings:** 5-6 Months after the surgeries, the proximal gastrectomy, but not the ileal interposition, contributed to the increase of necrosis area in the heart after ischemia. Specific changes in the dynamics of coronary flow, systolic and diastolic blood pressure, heart rate and contractile function during perfusion period were observed after the proximal stomach resection and the ileal interposition.

**Conclusion & Significance:** In normal conditions, the effects of bariatric procedures on myocardial resistance to ischemia and reperfusion injury depend on the type of surgery. The data obtained are important to assess the impact of different bariatric procedures on cardiovascular system and to develop the effective surgical approaches for the treatment of Type II diabetes in patients with heart disease.

### Biography

Galina Semikova graduated in 2015 from the First Pavlov State Medical University of Saint Petersburg, Russia, with the specialization in endocrinology. Area of interests is metabolic syndrome, obesity, cardiovascular diseases, cardioprotection, system of incretins, bariatric surgery. She actively uses as pathological conditions experimental approaches to ischemia and reperfusion on *in vivo* and *ex vivo* models, on the isolated heart and has experience in the evaluation of cardioprotective effects of gastrointestinal peptides. In addition, in the course of training in the Laboratory of Nutrition Physiology in Pavlov Institute of Physiology, RAS, she got experience in the use of the method for assessing intestinal glucose absorption ability *in vivo* (in the absence of anesthesia and surgical trauma).

semikovagv@yandex.ru

### Notes:



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## e-Posters

*Public Health 2017*

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## NUTRITIONAL PERFORMANCE OF FOOD REGIMES BASED ON LOCAL PRODUCTS IN THE REHABILITATION OF UNDERFED RATS

Egnon k v Kouakou<sup>a</sup>, Alassane Meite<sup>a</sup>, K Gustave Kouame<sup>a</sup>, Seraphin Kati- Coulibaly<sup>a</sup> and Kouame G M Bouafou<sup>b</sup><sup>a</sup>Felix Houphouet-Boigny University, Cote d'Ivoire<sup>b</sup>Upper Normal School of Abidjan, Ivory Coast

**Introduction:** Specialized food products (SFP) such as PlumpyNut, Sup Plumpy and Corn Soya Blend are unequally distributed in areas with high prevalence of malnutrition in Ivory Coast. Services providing these products often experience shortages that not only endanger children who are undergoing nutritional treatment and especially those who should have access to them. One of the reasons for these breaks is the shortage of the raw materials necessary for the manufacture of these products. The diversification of these raw materials is therefore a way to explore. This study aims to evaluate the nutritional performance of diets based on local products in the nutritional management of malnourished rats.

**Material and methods:** The experiment was carried out in two stages: Rats are fed for 10 days with the "Anagobaka" to induce malnutrition. The nutritional rehabilitation of the malnourished rats was then carried out, for 21 days, with different regimes: Plumpynut control, Soybean maize (SOMA), Rice fish (POIRI), Pistachio rice (PIRI), Cowpea soybean millet (NISOMI), Cowpea soybean sorghum (NISOSO). At the end of the experiment, dry matter intake (DMI), total intake protein (TIP), weight gain (WG), Food Efficiency Factor (FEF) and protein coefficient of the different regimes are determined and compared with one another.

**Results:** The MSI of the diets varied between  $7.01 \pm 0.93$  and  $5.45 \pm 0.16$  g/d. The highest MSI value was observed in SOMA and the lowest in PIRI. No significant difference ( $p > 0.05$ ) was observed between POIRI, PIRI, NISOSO, NISOMI and plumpynut for MSI. Protein ingestion levels of SOMA, POIRI, NISOSO, control, NISOMI and PIRI ranged from  $1.04 \pm 0.43$  to  $0.83 \pm 0.2$  g/d. The control diets, POIRI, NISOSO, NISOMI and PIRI showed no significant difference ( $p > 0.05$ ). The malnourished rats submitted to the different rehabilitation regimes have all regained weight. The growth performances of the registered SOMA, POIRI, Control, PIRI, NISOMI and NISOSO regimes were respectively 2.82, 0.73 g/d; 2.69, 70.85 g/day;  $2.64 \pm 0.61$  g/d;  $2.03 \pm 0.48$  g/d;  $1.99 \pm 0.72$  g/d and  $1.89 \pm 0.29$  g/d. The mean weight gain of the diets showed no significant difference compared to the control ( $p > 0.05$ ). The Food Efficiency Factor for diets varied between  $0.45 \pm 0.05$  and  $0.33 \pm 0.06$  while PEs ranged from  $2.90 \pm 0.11$  to  $2.05 \pm 0.39$ . The control diets, POIRI and SOMA showed no significant difference for the FEF and for the PEC ( $p > 0.05$ ).

**Conclusion:** The DMI, TPI, WG, FEF and PEC have allowed the evaluation of the growth performance of malnourished rats under different regimes. The results indicate that experimental diets have similar or even better performances than plumpynut. The most efficient regime is soybean maize (SOMA). Further studies are needed to verify whether the consumption of these diets has no pathological consequences for the regulating organs of nutrition.

### Biography

Egnon k.v. Kouakou is a Nutritionist-Researcher in Nutrition/Health at University Felix Houphouet Boigny Abidjan Ivory Coast. He is an expert Consultant Trainer at the Ministry of Health and Public Hygiene of Ivory Coast. He is an author of 8 articles, 3 communications and a book in Nutrition/Health (Title: Weaning flour and malnutrition in Developing Countries published in European Academic Editions online on AMAZON), corrector of articles at science PG group (Issue Malnutrition in Developing Countries).

kouakouegnonvivienn@yahoo.fr

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## Arg72pro POLYMORPHISM OF Tp53 GENE IS RELATED TO CARDIOVASCULAR RISK FACTORS AMONG CROATIAN SENESCENT MEN

Petra Krajacic<sup>a</sup>, Tatjana Skaric-Juric<sup>a</sup>, Zeljka Tomas<sup>a</sup>, Matea Zajc Petranovic<sup>a</sup> and Nina Smolej Narancic<sup>a</sup><sup>a</sup>Institute for Anthropological Research, Croatia

The p53 tumor suppressor protein, often termed the genome's guardian, has a critical role in cell cycle, apoptosis, cell senescence, DNA repair and metabolism. Animal and human studies have identified TP53 gene as one of the most important candidate genes involved in longevity. Here, we investigated the associations of Arg72Pro polymorphism of TP53 gene with indicators of biological age in 324 people aged 85+ yrs. Univariate and multivariate analyses of wide spectrum of variables associated with health status included noninvasive biometric measurements, biochemical blood tests and self-rated health. In univariate analyses Arg/Arg was related with higher body mass (skinfold thickness, upper arm and waist circumferences) and with higher fasting blood glucose. T-test, ANOVA/PostHoc test results showed a significant positive association of Arg/Arg genotype with anthropometric nutritional status variables as well as with fasting glucose level (cardiovascular risk factors) in elderly men but not in women. Sex-specific principal component analysis encompassing 40 variables extracted four significant factors, among which the first factor represented body mass and composition while the second one represented general health. Although the two factors had almost identical structure in both sexes, the t-test ( $p = 0.031$ ), ANOVA ( $p = 0.046$ ) and PostHoc test ( $p=0.018$ ) revealed significant association of Arg72Pro polymorphism only with the factor of general health in men, indicating that Arg/Arg was the risk and Arg/Pro was the protective genotype. Namely, Arg/Pro heterozygote carriers had better scores in personal independence, motility and self-rated health, suffered less from chronic and acute illness and used fewer medications. We suggest that further research should also be directed towards the investigation of gender specific influence of TP53 gene on different health-related traits. In conclusion, our results indicate the role of Arg72Pro polymorphism in health-related traits in men of very old age, but its role in longevity remains to be elucidated.

### Biography

Petra Krajacic is Ph.D. student at Faculty of science (Department of Biology, Zagreb University, Croatia). In her dissertation she conducted an association study of four most important polymorphisms of longevity genes (p53, IL-6, TNF, SIRT1) and diverse phenotypic traits, like motility, independence, life satisfaction and the presence of age-related disease, of 325 very old age people (85+). This research is a part of a Complex traits variation and health in children, adults and centenarians project founded by the Ministry of Science, Education and Sports.

petraxkrajacic@gmail.com

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## ASSOCIATION OF rs1800795 POLYMORPHISM OF IL-6 GENE WITH HEALTH STATUS IN CROATIAN ELDERLY POPULATION

**Petra Krajacic<sup>a</sup>, Tatjana Skaric-Juric<sup>a</sup>, Matea Zajc Petranovic<sup>a</sup>, Zeljka Tomas<sup>a</sup>, Spomenka Tomek-Roksandic<sup>b</sup> and Nina Smolej Narancic<sup>b</sup>**<sup>a</sup>Institute for Anthropological Research, Croatia<sup>b</sup>Teaching Institute of Public Health "A. Stampar", Croatia

Increases in serum cytokine IL-6 have been proposed as a reliable marker of functional decline, morbidity and mortality in old age. The results of studies exploring the role of rs1800795 polymorphism of IL-6 gene in longevity have however been conflicting. The aim of this study was to test the association between the rs1800795 and indicators of biological age in 324 oldest old people living in institutions (85-101 yrs). Analysis of a wide spectrum of variables associated with health status included noninvasive biometric measurements (anthropometry, blood pressure measurement, ultrasound bone densitometry), common biochemical blood tests (lipid, glycemic and protein status) and self-rated health. Altogether 41 variables were entered into the principal component analysis (PCA), which resulted in the extraction of four significant factors, among which the first factor represents body mass and composition, the second one represents sex differences, while the third one represents general health. This study revealed a significant association of rs1800795 with the factor of general health in Croatian elderly sample indicating that the high IL-6 producer genotype (GG) carriers have better scores in personal independence, motility and self-rated health, suffer less from chronic and acute illness and use fewer medications. In conclusion, significant association of rs1800795 polymorphism with biological age variables in the 85+ year olds indicates a pleiotropic effect of IL-6 gene on human health. Targeted studies are needed to explore further this relation in different elderly populations.

### Biography

Petra Krajacic is Ph.D. student at Faculty of science (Department of Biology, Zagreb University, Croatia). In her dissertation she conducted an association study of four most important polymorphisms of longevity genes (p53, IL-6, TNF, SIRT1) and diverse phenotypic traits, like motility, independence, life satisfaction and the presence of age-related disease, of 325 very old age people (85+). This research is a part of a Complex traits variation and health in children, adults and centenarians project founded by the Ministry of Science, Education and Sports.

petrakrajacic@gmail.com

### Notes:



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## SUGAR-SWEETENED BEVERAGE INTAKE AND ITS' ASSOCIATION WITH CHILDHOOD OVERWEIGHT AND OBESITY IN MONGOLIA

**Undram Mandakh<sup>a</sup>, Tseden Purevdorj<sup>a</sup> and Chimedsuren Ochir<sup>a</sup>**<sup>a</sup>Mongolian National University of Medical Sciences, Mongolia

**Statement of the Problem:** consumption of SSB has been increasing, due to urbanization and heavy marketing in low- and middle-income countries. The World Health Organization (WHO) has recommended to reduce intake of free sugars throughout one's life course and to reduce intake of free sugars to less than 10% of total energy intake. In the case of Mongolia, currently there is no study that has investigated total intake of water and beverages, daily beverage intake composition, and the association between weight status and consumption of SSB. The aim of this study was to examine how consumption of SSB affects the body weight of children and adolescents in Mongolia.

**Methodology & Theoretical Orientation:** A cross sectional survey was conducted between 2015 and 2016. A group of 353 relatively healthy children and adolescents aged 6-16 were selected from ger districts of Ulaanbaatar, Mongolia. Descriptive statistics were used to summarize the data. Chi-squared analysis was conducted to evaluate the association of categorical variables with body mass index (BMI) z-score subgroups. T-test or two-way ANOVA was performed to compare means. Beverage consumption was presented as means with standard deviation (SD) among sex and age groups.

**Findings:** The data from 347 children and adolescents were analyzed. Boys represented 50.1% (n =174) and the mean age  $\pm$  SD was  $10.0 \pm 2.9$  years. Tea was the main beverage type in all age and sex groups compared to other types of beverages. Girls aged between 10 and 13 years old had the highest consumption of sugar-sweetened beverages (SSB). And there was a markedly high consumption of SSB among overweight and obese children. Conclusion & Significance: Significantly higher consumption of SSB was seen among overweight and obese children. Detailed household and school-based observational and interventional studies should be performed using these findings to help policy makers to make evidence-based decisions about SSB.'

### Biography

Undram Mandakh is Ph.D. candidate with particular interest in global child health, child nutrition and family medicine. For last 3 years she has been working on association between consumption of sugar-sweetened beverages and childhood overweight. She works at Mongolian National University of Medical Sciences as faculty member. She holds a master's degree in public health and bachelor in medicine from the Health Sciences University of Mongolia.

undram@mnums.edu.mn

### Notes:



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## MICROBIAL CONTAMINATION OF ENVIRONMENTAL SAMPLES FROM THE REGIONAL HOSPITAL OF KORCA, ALBANIA

**Zhinzela Qyli\***

\*Fan S Noli University, Albania

**Statement of the problem:** Nosocomial infections are a major world public health problem. Infectious agents transmitted during healthcare derive primarily from human sources but inanimate environmental sources also are implicated in transmission. The purpose of this study is to estimate the microbiological pollution levels of samples taken from the environments of the Regional Hospital of Korca, Albania.

**Methodology & Theoretical Orientation:** This is a study of the potential bacterial reservoirs in the Hospital of Korca. A total of 1701 samples were taken from different wards of the hospital. 316 samples were taken from the sterilized materials, 184 samples from the laundries, 238 samples from the healthcare workers, 640 samples from the surfaces, 135 samples from air and 188 samples from the systems of intubation-aspiration-oxygen. The samples were cultured in Blood and Sabouraud agar. The microbial identification was done with microscopy after Gram coloration, colonies morphology and biochemistry.

**Findings:** Resulted positive for microbial contamination 30 (9.5%) of samples taken from the sterilized materials, 56 (30.4%) of samples from the laundries, 79 (33.2%) of samples from healthcare workers, 174 (27.2%) of samples from the surfaces, 8(5.9%) of samples from air and 46 (24.5%) of samples from the systems of intubation-aspiration-oxygen.

**Conclusion & Significance:** Samples with higher percentage of microbial contamination resulted from the samples of health care workers.

**Recommendations:** Health care workers must be sensitized on public health risk of nosocomial infections associated with their contaminated hands, clothing and nose-throat.

### Biography

Zhinzela Qyli has completed the Faculty of Medicine and specialization in Microbiology in the University of Tirana, Albania. She is lecture in the Nursing Department of Fan S Noli University, Korca and is following the doctoral school in the Faculty of Technical Medical Sciences, University of Medicine, Tirana, Albania.

zhinzelaqyli@gmail.com

### Notes:

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## CHANGING OF GLUCOSE ABSORPTION IN THE SMALL INTESTINE AFTER VARIOUS BARIATRIC PROCEDURES

Galina V Semikova<sup>a</sup>, Elena E Davydova<sup>a</sup>, Lucas Corelli<sup>a</sup>, Andrey A Gruzdkov<sup>a</sup>, Alexander E Neumark<sup>b</sup>, Nadezhda A Pechnikova<sup>b</sup>, Iana G Toropova<sup>b</sup> and Oleg V Korniyushin<sup>b</sup>

<sup>a</sup>First Pavlov State Medical University of St. Petersburg, Russia

<sup>b</sup>Federal Almazov North-West Medical Research Centre, Russia

**Statement of the Problem:** Diabetes mellitus type 2 is one of the most common diseases in the world. Bariatric surgery is widely used to reduce the adverse effects of type 2 diabetes. However, the effectiveness of bariatric surgery in patients with type 2 diabetes without the expressed obesity remains in question. To solve this problem, research is needed on animals to evaluate the effect of various bariatric procedures on carbohydrate metabolism in normal conditions and in experimental diabetes type 2. The aim of this study is to compare in the experiments on rats the influence of various bariatric procedures on body weight and glucose absorption in the small intestine, with estimation of different mechanisms of this process.

**Methodology & Theoretical Orientation:** The rats were subjected to the surgeries for resection of the stomach, bypass of the foregut, ileal interposition and sham operation (laparotomy). Animal body weights and glucose absorption were measured 4 months after surgeries. Glucose absorption was assessed using a test, based on measurements of the rate of free consumption of concentrated glucose solution by fasted rats. Active transport of glucose in the small intestine was assessed using the everted intestinal sacs.

**Findings:** In the case of the ileal transposition, the highest absorption of glucose was observed, along with reduced body weight of the animals. Active transport of glucose was increased in the enterocytes of the lower parts of the small intestine after the bypass of the foregut and the ileal transposition.

**Conclusion & Significance:** The changing of body weight and glucose absorption in the small intestine has specific features for different bariatric procedures. The data obtained are important to assess the impact of different bariatric procedures on carbohydrate metabolism and to develop the effective surgical approaches for the treatment of Type II diabetes in patients without the expressed obesity.

### Biography

Galina Semikova graduated in 2015 from the First Pavlov State Medical University of Saint Petersburg, Russia, with the specialization in endocrinology. Area of interests is metabolic syndrome, obesity, cardiovascular diseases, cardioprotection, system of incretins, bariatric surgery. She actively uses as pathological conditions experimental approaches to ischemia and reperfusion on *in vivo* and *ex vivo* models, on the isolated heart and has experience in the evaluation of cardioprotective effects of gastrointestinal peptides. In addition, in the course of training in the Laboratory of Nutrition Physiology in Pavlov Institute of Physiology, RAS, she got experience in the use of the method for assessing intestinal glucose absorption ability *in vivo* (in the absence of anesthesia and surgical trauma).

semikovagv@yandex.ru

### Notes:



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

# Accepted Abstracts

*Public Health 2017*

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## THE UTILITY OF RED CELL DISTRIBUTION WIDTH AS A PARAMETER FOR CALCULATING INDICES OF ALLOSTATIC LOAD

Ghalib A Belloa<sup>a</sup> and Gerard G Dumancas<sup>b</sup><sup>a</sup>Icahn School of Medicine at Mount Sinai, USA<sup>b</sup>Louisiana State University, USA

Allostatic Load is a construct used To quantify the cumulative burden of exposure to stress that, over the course of an individual's life, exert a toll on the body's physiological functions, predisposing to the development of various chronic ailments and conditions. The systemic physiological dysregulation resulting from increasing allostatic load can be quantified through chemical imbalances in various organ systems. Many studies have attempted to do this by combining multiple clinical parameters (e.g. albumin, C-reactive protein, cholesterol, etc.) to produce univariate indices that serve as measures of allostatic load. The general validity of these indices has been confirmed through studies showing they are good predictors of adverse health outcomes, mortality, hospital utilization and age-related pathologies. They have also used to demonstrate the existence of socioeconomic and demographic health disparities. In this study, we show the value of including red blood cell distribution width (RDW) among the panel of clinical parameters used to calculate allostatic load. RDW quantifies the degree of heterogeneity in erythrocyte volume and has shown strong correlations with mortality and a broad spectrum of diseases. A review of the existing literature on allostatic load reveals its underutilization in this area, despite being a standard component of blood count panels. Using Cox Proportional Hazards regression and Adaptive Index models, we show that calculating allostatic load using RDW (in addition to the common set of clinical parameters typically used in most studies) yields a significantly improved index. It demonstrates a superior ability to predict mortality, health status and comorbidities than the standard version currently in use.

## LIFESTYLE AND BEHAVIORAL DETERMINANTS OF LONG-TERM WEIGHT CHANGE IN WOMEN

Darline K El Reda<sup>a</sup><sup>a</sup>Kuwait University, Kuwait

**Objective:** To describe the determinants of 12-year weight change among a cohort of middle-aged women.

**Methods:** In 1991/1992, 49,259 women across Sweden were recruited into a cohort. In 2003, 34,402 (73%) completed a follow-up survey. Demographic, lifestyle and health characteristics, including weight were collected using baseline and follow-up surveys and twelve-year weight change and substantial weight gain ( $\geq +5.0$  kilogram [kg]) were calculated; association between baseline characteristics and odds ratios (OR) with 95% confidence intervals (CI) of substantial weight gain were estimated.

**Results:** The majority (81%) of women experienced weight gain during the twelve-year follow-up. Being above average weight (64.5 kg) at baseline [OR =1.20, 95% CI: 1.14, 1.26] and smoking 1-9 [OR=1.10, 95% CI: 1.01, 1.20], 10-19 [OR=1.30, 95% CI: 1.21, 1.39], or  $\geq 20$  cigarettes daily [OR=1.17, 95% CI: 1.04, 1.32] increased a woman's odds of experiencing a substantial weight gain. However, risk of substantial weight gain was reduced among women 45-50 years of age [OR=0.79, 95% CI: 0.73, 0.85], women reporting high alcohol consumption [OR=0.90, 95% CI: 0.83, 0.98], and those with medium [OR=0.93, 95% CI: 0.87, 1.00] or high [OR 0.83, 95% CI: 0.77, 0.90] physical activity levels. Smoking cessation (OR=1.88, 95% CI: 1.68, 2.11) and decreasing physical activity (OR=1.58, 95% CI: 1.48, 1.68) were associated with increased odds of substantial weight gain as compared to women who reported no smoking at baseline and follow-up and women who reported no changes in physical activity, respectively.

**Conclusions:** The majority of women experienced weight gain during middle-age. Women who start middle-age at an above average weight or as a cigarette smoker may be uniquely challenged in their weight management efforts, highlighting the value of population-specific determinants of weight gain in guiding obesity prevention efforts in women.

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## ECONOMY WIDE IMPACT OF HEALTHY DIET AND NUTRITIONAL REQUIREMENT IN MEXICO

Kakali Mukhopadhyay<sup>a</sup> and Paul J Thomassin<sup>a</sup>McGill University, Canada

Mexico is currently going through a nutrition transition. Mexicans are moving away from a traditional diet to a highly processed diet making them particularly vulnerable to chronic disease. Trade liberalization plays a huge role in this regard. After NAFTA had been implemented in 1994, the number of unhealthy food products from the United States to Mexico increased substantially. According to FAO and the OECD, Mexico has one of the highest obesity rates in the world. According to a national nutrition survey, Mexico is leading the world in childhood obesity with 30% under 15 years, 40.8% are overweight, over 15+, and 32.2% are obese, placing the country's second in the world. The indigenous population suffers from a higher nutritional risk and the over 33 percent chronic malnutrition rate for children under five. It is a central challenge for policymakers worldwide. The prevalence of nutrition-related chronic disease would decrease by adopting "healthier diets" as recommended by the World Health Organization. Mexico's Department of Nutrition and Health Promotion uses The Plate of Good Eating (includes vegetables and fruits; cereals; and legumes and animal products) aims to provide recommendations for proper nutrition among the general population. Against this background, it is urgent to assess the impact of adopting a healthy diet in Mexico following the guidelines set by the Health Department of Mexico. The objective of the study is to calculate the macroeconomic impact of actual and recommended consumption of a healthy diet in Mexico. It also estimates the actual and recommended nutritional requirements across different age groups. It is an integrated exercise combining both Input-Output and Global CGE model. Finally, the study suggests some policy options to promote healthy eating for preventing obesity and chronic diseases.

## COMMUNITY HEALTHY LIFESTYLE INTERVENTIONS: THE IMPACT OF THE CAN DO COMMUNITY PROGRAMME ON MENTAL WELLBEING

Ruby R Gad<sup>a</sup><sup>a</sup>Imperial College London, UK

**Background:** In the current climate of obesity and its numerous associated risks, healthy lifestyle interventions are becoming increasingly relevant. The Can Do Community Programme is an example of a resident-led, healthy lifestyle intervention to attain public health outcomes. The programme provides organisational and financial support to individuals with a community project idea targeting healthy nutrition or physical activity. Healthy lifestyle and mental wellbeing are inextricably linked such that changes in one routinely reflect changes in the other. There is growing evidence that wellbeing correlates with increased life expectancy, as well as primary and secondary prevention of illness, both physical and mental. The objective of this study is to explore community healthy lifestyle interventions by assessing the impact of the Can Do Community Programme 2015-16 on mental wellbeing.

**Methodology:** The Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS), validated for monitoring population wellbeing, was utilised. The minimum and maximum scores of the scale are 7 and 35 respectively. It was administered, alongside a demographic capture questionnaire, to Can Do project participants at baseline and at follow-up. All responses received were subject to pre-specified inclusion and exclusion criteria.

**Findings:** In total, 90 responses were used in the data analysis. Overall, the mean population SWEMWBS score increased from 23.9 (baseline) to 26 (follow-up). This increase was statistically significant,  $p < 0.001$ , and remained true when the data was stratified by age group as well as by gender.

**Conclusions:** The findings suggest that the Can Do Community Programme was successful in improving mental wellbeing. It is a commendable example of a healthy lifestyle intervention. This study offers a valuable insight into the measure of wellbeing. Moreover, it highlights the benefits of grass roots, community approach to improving nutrition and physical activity.



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## THE LEVEL OF KNOWLEDGE, PERCEPTION AND USAGE OF FERMENTED FOODS BY CAREGIVERS FOR FEEDING YOUNG CHILDREN IN HEILBRON, FREE STATE PROVINCE

TS Dhlamini<sup>a</sup> and PK Chelule<sup>a</sup><sup>a</sup>Public Health Association of South Africa, South Africa

**Introduction:** Use of fermented foods and probiotics has the potential to improve nutritional status when fed to young children. However, there has been insufficient research in South Africa determining the level of knowledge, perceptions and usage of fermented foods among the children's caregivers.

**Objective:** This study aimed to assess the caregivers' level of knowledge and perceptions and the usage of fermented foods for feeding young children in Heilbron, Free State Province.

**Study methods:** This was a descriptive quantitative study where data was obtained from participants using a structured questionnaire. Descriptive statistics was employed summarize and present data. Chi Square test was used to determine demographic characteristics associated with feeding of fermented foods. Statistical significance was confirmed for p-values less than 0.05.

**Results:** From the 325 respondents, majority were aged between 18 and 35 years and female dominated. Commercial fermented foods used by caregivers to feed children under 5 years were Inkomazi (62%) commercial Mageu (82%) and yoghurt at (86%). Majority of caregivers responded that they prepared fermented foods in the household to feed children under 5 years. Most of them 61% (n= 164) reported to be preparing ting ya mabele, followed by ting at 42% (n= 113) and fermented soft porridge 26% (n= 69). Most respondents had adequate knowledge and positive perceptions about fermented foods both commercially prepared and homemade.

**Conclusion:** This study showed that respondents had substantial knowledge about fermented foods. However, there were mixed perceptions on fermented foods usage.

## NUTRITIONAL STATUS AND QUALITY OF LIFE OF FEMALE STREET SWEEPERS IN DELHI

Deepika Anand<sup>a</sup> and Shweta Verma<sup>a</sup>

University of Delhi, India

The present study was designed to assess the nutritional status and quality of life of female street sweepers in New Delhi. Data was collected from 50 adult (>18 years), non pregnant and non lactating female street sweepers using a pre-tested questionnaire-cum-interview schedule, one-day 24 hour recall method and WHOQOL-BREF scale for quality of life. Most of the subjects (68%) belonged to age group of 31 – 45 years, 60 percent were illiterate and 50 % were working for 6 – 8 hours each day. Majority (34%) reported to have their monthly incomes below Rs 10,000. The mean BMI of subject was  $24.38 \pm 3.09$  kg/m<sup>2</sup> and mean Waist-Hip Ratio (WHR) was  $0.82 \pm 0.04$ . The mean intake for energy and protein was significantly lower than the RDA ( $p < 0.01$ ). The micronutrient consumption was much below the recommended levels ( $p < 0.01$ ) indicating poor nutrient intakes. In terms of food groups consumption, the consumption of fruits and vegetables, milk and milk products was significantly lower than the suggested intakes ( $p < 0.01$ ). The subjects scored significantly lower on the environment domain of quality of life ( $49 \pm 13$ ) as compared to physical ( $64 \pm 10$ ) and psychological ( $62 \pm 14$ ) condition and social relationship ( $63 \pm 13$ ) domain ( $p < 0.01$ ). This indicates that subjects were not satisfied with their financial status, medical services, transport and opportunity for leisure activities but were satisfied with social life, body appearance, personal life, sleep and energy level. High BMI and WHR, high fat-low fibre-low micronutrient intakes, indicates higher risk to developing NCD's even in this low-income group subjects. In terms of QoL, subjects scored best in their physical health domain followed by psychological, social relationships and least in environmental domain.

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## OBESITY DIET CONCEPT: THE EFFORTLESS AND EASIEST WAY FOR OBESITY TREATMENT PROGRAM

**Pralampita Kori Mufidah<sup>a</sup>, Pintari Dian Lupita Sari**<sup>a</sup>Universitas Gadjah Mada, Indonesia

**Statement of The Problem:** Obesity is often defined as a condition of abnormal or excessive fat accumulation in adipose tissue. From the fragmentary and limited prevalence data, it is evident that obesity does exist in an available developing country particularly among university students. Among the medical record students in Universitas Gadjah Mada, it has been counted that there are 11 from 300, or in the other word 3.67%, medical record students stated as obese according to the Body Mass Index (BMI).

**Methodology & Theoretical Orientation:** A descriptive qualitative case study was utilized during participant observation and in depth interview. Body Mass Index (BMI) concept also used in this research. BMI is a simple index of weight for height that commonly used to classify underweight, overweight and obesity. Obesity is classified as  $BMI \geq 30.0$ . The subject in this research is medical record student in Universitas Gadjah Mada that stated as obesity.

**Findings:** The observation that has been done showed that the subject of this research has a tendency to “never stop eating” and doing less exercise. Rising from that fact, this research is conducted to give them an effortless treatment that is known by Obesity Diet Concept.

**Conclusion and Significance:** It has been proved that the Obesity Diet Concept is highly effective and applicable for the medical record university students with obesity. They can lose 6-10 lbs in a week with an easy and simple way.

## MOTHER’S KNOWLEDGE AND ATTITUDE ABOUT INFANT AND YOUNG CHILD FEEDING (IYCF) AND ASSOCIATED FACTORS IN RURAL AREA OF BURKINA FASO IN THE HEALTH DISTRICT OF OUARGAYE

**Baperman Siri<sup>a</sup> and Marcel Bengaly<sup>b</sup>**<sup>a</sup>Ministry of Health, Burkina Faso<sup>b</sup>University of Ouagadougou, Burkina Faso

**Background:** Malnutrition in children is still a major public health problem in most developing countries such as Burkina Faso. IYCF practice should be influenced by knowledge and attitude about the subject. Material and

**Method:** We carried out a cross-sectional study in primary health care centers randomly selected. The objectives of our work were to study knowledge and attitudes about IYCF and analyze associated factors.

**Result:** In total, we surveyed 287 mothers. Average age of mothers was 26.7 years [17-45], 71.4% of them were uneducated and 94.5% were unemployed. The average number of gestures among mothers was 3.44[1-11]. Among mothers, 15% was in underweight and 10.7% was in excess weight. Most mothers (82, 8%) admitted that colostrum has an advantage for the newborn and 87.8% were aware of the proper diet (exclusive breastfeeding) of children under six months of age. Slightly more than half (55%) of mothers had a low level of knowledge about the benefits of breastfeeding. Water supply ( $p=0.041$ ) and habitat type ( $p=0.001$ ) were statistically associated with the level of knowledge about the benefits of breastfeeding. About half (54%) of respondents were aware of the recommended delay of breastfeeding initiation in postpartum. Feeding in disease situation was known by the majority of mothers just as breastfeeding at night. About one in five mothers (18.5%) reported that children under six months of age need water supplementation. The discomfort to breastfeed in public was an unusual feeling (6%) and 87, 2% of respondents admitted that breastfeeding should be continued until the age of two years after birth. Conclusion: Mother’s knowledge about the advantage of breastfeeding was still low, however we found a good level of knowledge about exclusive and duration of breastfeeding. Attitudes towards breastfeeding were positives. Targeted interventions on maternal health services and communities could raise the level of knowledge on IYCF.



2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## EFFECTS OF BARIATRIC SURGERY ON MYOCARDIAL RESISTANCE TO ISCHEMIA AND REPERFUSION INJURY IN THE EXPERIMENT

**Galina V Semikova<sup>a</sup>, Elena E Davydova<sup>a</sup>, Lucas G Carelli<sup>a</sup>, Oxana Tkachuk<sup>a</sup>, Oleg V Korniyushin<sup>b</sup>, Alexander E Neumark<sup>b</sup>, Iana G Toropova<sup>b</sup> and Alexander S Polozov<sup>c</sup>**

<sup>a</sup>First Pavlov State Medical University of Saint Petersburg, Russia

<sup>b</sup>Federal Almazov North-West Medical Research Centre, Russia

<sup>c</sup>Pavlov Institute of Physiology- RAS, Russia

**Statement of the Problem:** Obesity, metabolic syndrome and diabetes mellitus type 2 are the most common pathological states in the world. Although bariatric surgery is widely used to reduce the adverse effects caused by these states, its effect on cardiovascular system is still not known. To solve this problem, studies on animals are needed to evaluate the effects of various bariatric procedures on hemodynamic in normal and pathological states. The aim of this study is to conduct experiments on rats and to compare the impact of various bariatric procedures on myocardial resistance to ischemia and reperfusion injury.

**Methodology & Theoretical Orientation:** The rats were subjected to surgeries for proximal stomach resection, ileal interposition and laparotomy. 5-6 months after the surgeries, isolated hearts of the animals were perfused by Krebs-Henseleit solution in vitro according to Langendorff heart. Coronary flow, systolic and diastolic blood pressure, heart rate and contractile function were measured before ischemia period and during perfusion period. To identify areas of necrosis following ischemia, the hearts were incubated with 2,3,5-triphenyltetrazolium chloride. The necrosis area was evaluated on digital photographs by manually contouring the differentially colored left ventricle subsets.

**Findings:** 5-6 months after the surgeries, the proximal gastrectomy, but not the ileal interposition, contributed to the increase of necrosis area in the heart after ischemia. Specific changes in the dynamics of coronary flow, systolic and diastolic blood pressure, heart rate and contractile function during perfusion period were observed after the proximal stomach resection and the ileal interposition.

**Conclusion & Significance:** In normal conditions, the effects of bariatric procedures on myocardial resistance to ischemia and reperfusion injury depend on the type of surgery. The data obtained are important to assess the impact of different bariatric procedures on cardiovascular system and to develop the effective surgical approaches for the treatment of type II diabetes in patients with heart disease.

2<sup>nd</sup> World Congress on

# Public Health & Nutrition

March 22-23, 2017 | Rome, Italy

## ASSOCIATED FACTORS TO NUTRITIONAL STATUS AND INFANTS AND YOUNG CHILD FEEDING (IYCF) PRACTICE IN RURAL AREA OF BURKINA FASO : A STUDY IN THE HEATH DISTRICT OF OUARGAYE

**Baperman Sirit<sup>a</sup>, Soumaila Coulibaly<sup>a</sup>, Garanet Franck<sup>b</sup>, Marcel Bengaly<sup>c</sup> and Joseph Catraye<sup>d</sup>**<sup>a</sup>Ministry of Health, Burkina Faso<sup>b</sup>Institute of Research and health Sciences, Burkina Faso<sup>c</sup>University of Ouagadougou, Burkina Faso<sup>d</sup>Public Health Support Office (BASP'96), Burkina Faso

**Background:** Although global trend of malnutrition among children under five is declining, it remains a major public health problem in developing countries such as Burkina Faso. IYCF are major determinants of nutritional status and hence health and child survival.

**Material and method:** We carried out a cross-sectional study in primary health care centers randomly selected. The objectives of our work were to analyze associated factors to child's malnutrition and feeding practice. The Z-scores (WHO, 2006) and arm circumference were used to determine nutritional's status of the children. Feeding practices were assessed according to IYCF index.

**Results:** In total, we surveyed 287 couples mother-child. Average age of mothers was 26.7 years; 71.4% of them were uneducated and 94.5% were unemployed. The average number of gesture among mothers was 3.44[1-11]. The average age of children was 10.87 months [6 to 31.9]. Sex ratio was at 1.11. In children, the prevalence of underweight was 19.2%, that of stunting 31.2% and that of wasting 10.1%. The proportion of children with a brachial perimeter <125 mm, that is to say malnourished, was 8.8%. Slightly more than half of mothers (55%) reported that they had breast-fed their child within one hour of delivery. About two out three mothers (69, 7%) have practiced exclusive breastfeeding (EBF). The majority (70%) of children had a good score of IYCF index. The number of gesture was associated with the Z-score Weight/Age. Practice of EBF was associated with Z-score Height/Age (p=0, 04). In children aged 9-12 months, the Z-score Height/Age (p=0.04) and Z-score Weight/Height (p=0.001) were associated with IYCF index.

**Conclusion:** Feeding practices are good and are not associated with sociodemographic characteristics of mothers. However, it notes that the delay of breastfeeding initiation after delivery and practice of exclusive breastfeeding are not very satisfactory. Targeted interventions on maternal health services and communities could improve feeding practices.