

**Purpose:** Integrative Medicine is an expanding field of health-care that emphasizes nutrition as a key component. Dietitians and nutritionists have an opportunity to meet workforce demands by practicing Dietetics and Integrative Medicine (DIM). We report the results of an interprofessional nutrition education and practicum program developed at the University of Kansas Medical Center (KUMC) Department of Dietetics and Nutrition and KU Integrative Medicine.

**Methods:** KU Dietetics and Nutrition and KU Integrative Medicine implemented a feasibility study conducted between October 2010 and February 2011. Results of the feasibility report advised team members to proceed to Phase II to develop curriculum for online and classroom content, the dietetic internship and practicum schedules.

**Results:** The benchmarks were successfully completed by the end of 2011 and a Master of Science degree was developed for the Graduate Certificate in DIM. KU Integrative Medicine clinic was chosen as a supervised practice experience site for dietetic interns because of the interdisciplinary practice environment. Phase III was implemented in January of 2012 with a beta-test of the DIM internship curriculum. There was a subsequent announcement in early 2012 that invited interested prospective students to apply as fellows for the program with official start date in August 2012. The first group has successfully completed the program.

**Conclusion:** The demand for education in Dietetics and Integrative Medicine to address chronic health problems necessitates the identification of required core competencies, learning objectives and activities to guide the development of curriculum for dietetic internship. This process requires interprofessional education and teamwork. We propose that the KUMC Dietetics and Nutrition and KU Integrative Medicine collaboration is a model for the development of innovative educational programs. The result of this collaboration provides tools for solving chronic complex disease with patient focused biochemically-based nutritional interventions and models a method to train future practitioners.

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### P03.20

#### **The Effects of Vitamin B6 Deficiency or Supplementation on Cutaneous Sensitivity in Diabetic and Non-Diabetic Mice**

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**Purpose:** This pilot project was devised to translate clinical observations from KU Integrative Medicine into a tractable murine behavioral model that would allow investigation of the mechanisms underlying the therapeutic impact of vitamin B6 on diabetic neuropathy-associated pain with a primary aim to: determine if dietary vitamin B6 intake influences the onset or intensity of painful diabetic neuropathy.

**Methods:** An established mouse model of painful diabetic neuropathy was used in conjunction with custom diets containing 0, 7, or 35 mg/kg vitamin B6 representing deplete, control and supplemented levels respectively. Established behavioral measures of painful neuropathy were used to test the timing of onset of neuropathy as well as the severity of the sensitivity for 8 weeks after induction of diabetes.

**Results:** Mechanical sensory testing was conducted once weekly with monofilaments of known stimulus intensity. Significant decreases in nociceptive threshold were seen in diabetic mice

beginning 2 weeks post-induction. In B6 supplemented mice, the magnitude of diabetes-induced mechanical hyperalgesia was reduced as noted by the lack of significant difference between diabetic and non-diabetic mice on the supplemented diet. Two-way ANOVA on Ranks for data from weeks 2 to 5 notes significant differences between control and deficient diet within the non-diabetic animals as well as control vs supplemented diet within the diabetic mice

**Conclusion:** Diabetic animals on either control or deficient chow exhibit increased responsiveness to mechanical stimuli within two weeks. Mice on B6 supplemented diet do not have significantly different thresholds from their non-diabetic counterparts. Moreover, diabetic mice on B6 supplemented diet exhibit significantly higher thresholds than mice on control diet. Non-diabetic mice on B6 deficient chow have significantly increased threshold from non-diabetic animals on control diet, despite a significantly lower body weight. Unexpected findings lead to question if hind paw innervation density may lead to amelioration of hypersensitivity with B6 treatment.

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### P03.21

#### **Examining the Impact of a Week-Long National Training Program to Enhance Well-Being in Medical Students: Leadership and Education in Integrative Medicine Program (LEAPS)**

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**Purpose:** Concern has been mounting over the increase in depression and hardening of empathy occurring during medical school. Training on health promotion through integrative medicine treatment and prevention which may counteract this trend is still absent from most medical school curricula. In response, the CAHCIM in collaboration with two national organizations has implemented a week-long summer intensive residential program (LEAPS) to foster leadership in integrative medicine and enhance medical student well-being. The aim of this study is to present effects of this curriculum innovation and explore mechanisms for observed outcomes.

**Methods:** Participants included two cohorts of medical students (N=60) who participated in the LEAPS program during the summer of 2012 and 2013. Each cohort represented a range of allopathic and osteopathic schools in North America and spanned the M1 through M3 training years. The residential curriculum included didactic training in integrative medicine, with experiential learning in self-care practices and small group work focused on cultivating personal awareness, leadership and community. Participants completed a pre-post survey protocol of several validated measures related to mental health and well-being. Thematic content of student's responses to open-ended survey questions were content analyzed

**Results:** Paired sample T-tests revealed significant decreases on anxiety and depression scales pre-post training for both cohorts. Moreover, all students presenting with elevated referral risk for

clinical depression (n=13) fell below these risk levels post-training. Students described the holistic immersion as a transformative experience increasing their felt sense of community and support.

**Conclusion:** A one-week intensive learning experience that emphasizes holistic self-care and belongingness in a community of like-minded peers and faculty appears to be effective in reducing negative affective states related to anxiety and depression which may be exacerbated by medical school training. The sustained impact of this effect was replicated in two cohorts and is currently being explored through follow-up data analysis.

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### P03.22 LB

#### Upper Respiratory Tract Infection (URTI) Among Children in Eastern Province of Sri Lanka

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**Purpose:** This study was conducted on Upper Respiratory Tract Infections among School children at a moderately remote village Kinniya which falls in the Eastern province of Sri Lanka to find out the prevalence about grade 5 to 10 students and to derive possible interventions on how they have influenced due to lack of knowledge regarding hygiene.

**Methods:** The descriptive study on 9 to 15 age group of school children in 2 rural schools in Eastern province was done using a number of 222 conveniently selected sample. Data was collected using an interviewer administered questionnaire and the data were analyzed using “descriptive statistics”.

**Results:** Out of 222 students, only 48 students (21%) were washing hand more than 3 times at school. Out of 116 students 69 students (59%) are sharing water bottles at school. Findings clearly indicate that one sixth of the children (15%) among the candidates refrained from using the elbow to cover and wipe the nose during sneezing. However 77% of students were aware of the proper manners of preventing contamination with sputum. When questioned about the risk activities for spreading respiratory infections 113 (50%) identified by touching an infected person, 116 (52%) identified as by water; 100 (45%) as through the air and 122 (54.9%) identified as by food.

**Conclusion:** This study demonstrates how poor hygienic factors contribute to Upper Respiratory Tract Infections among school Children. Never the less most of the students were aware of spreading of infections though they were not aware of preventive hygienic factors.

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### P03.23 LB

#### Screening of Antioxidant Activity of Methanolic Extract of Citrullus Colocynthis Seeds

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**Purpose:** To assess the antioxidant property of Citrullus colocynthis seed extract by DPPH free radical scavenging and hydrogen peroxide method.

**Methods:** Citrullus colocynthis seed extract was prepared by cold maceration method with methanol for 6 hours. The extraction process was repeated for 3 times. The concentrated extract was investigated for phytochemical screening followed by antioxidant activity using 1, 1-diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging and Hydrogen peroxide method.

**Results:** The IC50 (inhibition concentration 50) of methanolic seed extract of Citrullus colocynthis using DPPH and H2O2 at 300 µg/ml was found to be 70.3% and 72.4% respectively as compared to standard ascorbic acid.

**Conclusion:** This study provides scientific insight in the use of Citrullus colocynthis seeds as a potent source of antioxidant and can be used in the treatment of various health ailments and against oxidative stress.

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### P03.24 LB

#### Improving Chinese Medicine (CM) Knowledge Base for Non-CM Community Health Practitioners: A Description of Shanghai-Based Community Health Education Program

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**Purpose:** Since its launch in 2009, China's healthcare reform has anchored in primary care and prevention mainly through development of community health. Chinese medicine (CM) is expected to play a substantial role in the treatment of common diseases as well as in public health services. Service networks in community health centers have been building up in the last four years. Realizing that the capacity to deliver services and the quality of services should be improving further, the Shanghai Bureau of Public Health decided to develop a key project to enhance the knowledge and skills of Chinese medicine for Non-CM practitioners in Shanghai community health program. The non-CM community health practitioners include three groups: (1) 8043 western medicine physicians; (2) 1826 public health workers; and (3) 1746 rural health workers. The goal is to better equip these community health practitioners with skills in addressing common diseases and general health management utilizing appropriate techniques based on the principles of integrative medicine. The program started its implementation phase in the February of 2014.

**Methods:** This study describes the program including the historical context, structure, content, and activities of the program, as well as selected program outcome measures and demographic characteristics. The study also explores the challenges of the implementation and maintenance of the project.

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### P03.25 LB

#### Listening to Oneself: A Description of Resiliency Practices of First-Year Medical Students

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