

9<sup>th</sup> International Congress on

# Nutrition & Health

February 20-21, 2017 Berlin, Germany

## Manipulation of the gut microbiome in weight management

**Gerard E Mullin**

Johns Hopkins Hospital, USA

The pathophysiology of obesity is still unknown, however there is mounting evidence that the gut microbiome, intestinal permeability, systemic inflammation, cytokines, subclinical endotoxemia and insulin resistance may play important roles in disease pathogenesis and are possibly targets for treatment. Alterations in diet have been shown to shift the gut microbiome's effects on metabolism and regulation of body weight by a number of mechanisms that involve the gut microbiome. This session will provide a focused overview of the scientific literature regarding the potential role of gut microbiome as a therapeutic target of weight management and cardiometabolic health. The lecture will first review the pathophysiology of obesity and discuss how an evidence-based approach can achieve optimal weight management by dietary manipulation of the gut microbiome along with prebiotics and probiotics. Learning objectives: To discuss the influence of the gut microbiome on energy metabolism; to understand how disruption of the gut microbiome can lead to obesity; to know how prebiotic and probiotic foods and supplements may influence weight by favorably altering the gut microbiome.

gmullin1@jhmi.edu

## Tools 4 teen moms: A challenge-based social media educational intervention

**Mildred A Horodynski, Kami Silk and Mackenzie Robson**

Michigan State University, USA

Tools 4 teen moms (T4TM) is a social-media educational intervention designed to promote healthy infant feeding practices: Infant-centered feeding, maternal responsiveness, and proper introduction of complementary foods. The T4TM intervention consists of 6 weeks of daily challenges appropriate for teen moms. The T4TM challenge-based intervention has been field tested among 51 low-income, first-time adolescent mothers of infants under two months of age, recruited from the maternal infant health programs (MIHP) in five Michigan counties in USA for program efficacy and participant engagement and satisfaction. Participants randomized to the intervention received a text message each day for six weeks that included the day's challenge and website URL. Post intervention self-report survey revealed that participants in the intervention were more likely to know that propping the bottle was not a safe feeding practice ( $p=0.04$ ), and that infants under 6 months of age did not require more than breast milk or formula ( $p=0.08$ ). When asked the proper time to introduce solid foods, 92% of intervention participants answered correctly compared to 76% of control participants. Participant responses indicated a high level of program satisfaction. Website activity revealed moderate engagement with the program. Average number of challenge completions was 21 out of 42, and the participants visited the website on an average of 22 out of 42 days. Results indicate that a tailored, social media-based educational intervention to be a promising method of message delivery among adolescent mothers.

Millie.Horodynski@ht.msu.edu