

4<sup>th</sup> Edition of

# World Obesity and Weight Management Congress



Venue: Best Western Plus Hotel & Conference Center 5625 O'Donnell Street Baltimore, MD 21224, USA

# **BOOK OF ABSTRACTS**



# 24-26

# 4<sup>th</sup> Edition of World Obesity and Weight Management Congress

# BOOK OF Abstracts

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# **Keynote Speakers**



**Allison B Reiss** NYU Grossman Long Island School of Medicine, United States



Andrzej Bissinger Medical University of Lodz, Poland



Ashok Sharma Apollo Hospital, India



**Buck Willis** IUHS School of Medicine, Saint Kitts and Nevis



**David D Peterson** Cedarville University, United States



**Gretchen Holmes** Sam Houston State University, United States



Joshua De Leon NYU Grossman Long Island School of Medicine, United States



**Mitchell S Steiner** Veru Inc, United States



States

Center for Health Sciences, United



Torbjörn Bäckström University of Umea, Sweden



**Russell Rising** D & S Consulting Services Inc, United States



Vicky Midwood Go Figure Coaching, United Kingdom

Thank You All...

### **Speakers**



Aboubacar Oumar Bangoura Université Gamal Abdel Nasser de Conakry, Republic of Guinea



Annet Adegboyega Sinai Hospital, United States



Elamari Saloua UM6SS, Morocco



Jae-Dong Lee The Catholic University of Korea, Republic of Korea

Joelle Hoeferkamp

University of the Incarnate Word

School of Osteopathic Medicine,

**United States** 



Akhila Harinarayan Information Services Group (ISG), India



Arvind Bhaktavatsala AMD Pvt Ltd, India



Elzbieta Majzner Central Clinical Hospital of the Medical University of Lodz, Poland



Jamie Faro University of Massachusetts Chan Medical School, United States



Johnny H Wen Providence Hospital, United States



Allison Insunza California State University, United States



**Bob Esquerre** Esquerre Fitness Group International, **United States** 



Iftikhar Ali Khan Eastern Along Pharmaceutical Co, Ltd, China



Janet Frank Janet Frank Coaching LLC, United States



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Amy Gutman AdventHealth; Tough Love MD, United States



Catriona Maybury Helios X Group, United Kingdom



Isabel Michalak Olin Neuropsychiatry Research Center, United States



Jeane Silva Augusta University, United States



Angela Conte California State University, United States



De'Andre Nunn Chicago State University, United States



Jade Sampford Anglia Ruskin University, United Kingdom



Jeeva Subramanian UMass Memorial Medical Center, United States



Maria Alejandra Mogollon American Association of Clinical Endocrinologist, United States







Rajarajeswari Medical College and Hospital, India



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## **Speakers**



Mariana Santos Founder of Brazily Fitness Inc., Canada



Rajat Goyal MM College of Pharmacy, India



Masood Ahmed Bolan Medical College Quetta, Pakistan



Robert W Liles Liles Parker, United States



Michelle Petties Brand New Now Press, United States



Sandi Assaf SHSU College of Osteopathic Medicine, United States



Mohaddeseh Hasanzadeh Shahid Beheshti University of Medical Science, Iran (Islamic Republic of)



Olga Verbeniuc Canadian School of Natural Nutrition, Canada

Thank You All...

# Welcome Message



**D & S Consulting Services Inc, United States** 

It is an honor and great pleasure to write a few welcome notes for the session entitled "Obesity and Weight Management." Despite all of the advances in our knowledge of nutrition related to obesity, this disease still plagues many individuals around the world today. One of the major reasons for many individuals failing to lose weight while participating in obesity treatment programs is due to inaccurate information regarding their individual energy metabolism.

Many obesity treatment programs rely on outdated or inaccurate methodologies to provide baseline and periodic determination of energy needs throughout treatment. Furthermore, there is very limited information on the actual energy expended for various physical activities that some obesity treatment programs use as an adjunct. This, combined with some of the inaccuracies regarding dietary recall, can lead to low success rates for obesity treatment.

Finally, obesity can begin during infancy. Accurate measurement of energy metabolism should begin at this time and be available throughout the lifespan. It will be a great opportunity for the WOC 2024 participants, including young and senior researchers, scientists, clinicians, and academicians, to gain knowledge with the up-to-date methodologies in regards to the treatment or prevention of obesity.

# Welcome Message



It is my pleasure to welcome you to the 4th Edition of the World Obesity and Weight Management

It is my pleasure to welcome you to the 4th Edition of the World Obesity and Weight Management Congress in the vibrant city of Baltimore, Maryland, USA. The event will offer participants the unique opportunity to engage in-person or virtually at this prestigious event, where the latest advancements, research, and strategies in obesity and weight management will be showcased.

During the event we will explore innovative treatments and practical approaches to tackling obesity and promoting healthier lifestyles. This congress brings together leading experts, researchers, healthcare professionals from around the globe to share their knowledge, experiences, and visions for the future.

As we navigate the complexities of obesity and weight management, your active participation will be crucial in fostering meaningful discussions and collaborations. We encourage you to actively participate in the discussion during our sessions, which are designed to inspire further research.

Thank you for joining us at the Congress in Baltimore. Together, let's pave the way towards a healthier future, driving impactful changes in the fight against obesity. I wish you a fruitful and inspiring conference!

### ABOUT MAGNUS GROUP

Magnus Group, a distinguished scientific event organizer, has been at the forefront of fostering knowledge exchange and collaboration since its inception in 2015. With a steadfast commitment to the ethos of Share, receive, grow, Magnus Group has successfully organized over 200 conferences spanning diverse fields, including Healthcare, Medical, Pharmaceutics, Chemistry, Nursing, Agriculture, and Plant Sciences.

The core philosophy of Magnus Group revolves around creating dynamic platforms that facilitate the exchange of cutting-edge research, insights, and innovations within the global scientific community. By bringing together experts, scholars, and professionals from various disciplines, Magnus Group cultivates an environment conducive to intellectual discourse, networking, and interdisciplinary collaboration.

Magnus Group's unwavering dedication to organizing impactful scientific events has positioned it as a key player in the global scientific community. By adhering to the motto of Share, receive, grow, Magnus Group continues to contribute significantly to the advancement of knowledge and the development of innovative solutions in various scientific domains.



Welcome to the 4th Edition of the Obesity and Weight Management Conference (WOC 2024), scheduled from October 24-26, 2024, in Baltimore, Maryland, USA. This year's theme, *Empowering Health: Navigating Solutions for Obesity and Weight Management*, unites a global community of researchers, healthcare professionals, academicians, and industry leaders to discuss the latest innovations in obesity and weight management.

Our program includes keynote talks, oral and poster presentations, and interactive sessions aimed at fostering collaboration and knowledge exchange.

As you review this abstract book, you'll discover cutting-edge research that showcases significant contributions to the field of obesity and weight management. Whether attending in-person or virtually, participants will engage with leading experts and peers to drive forward the future of health in this critical area. We look forward to your participation in this essential event.



Continuing Professional Development (CPD) credits are valuable for WOC 2024 attendees, as they provide recognition and validation of ongoing learning and professional development. The number of CPD credits earned is typically based on the number of sessions attended. Attendees have the opportunity to earn 1 CPD credit for each hour of attendance. Some benefits of CPD credits include:

**Career Advancement:** CPD credits demonstrate a commitment to ongoing learning and professional development, enhancing your reputation and increasing opportunities for career advancement.

**Maintenance of Professional Credentials:** Many professions require a minimum number of CPD credits to maintain certification or license.

**Increased Knowledge:** Attending WOC 2024 and earning CPD credits helps attendees stay current with the latest developments and advancements in their field.

**Networking Opportunities:** WOC 2024 provides opportunities to network with peers and experts, expanding your professional network and building relationships with potential collaborators.

Note: Each conference attendee will receive 20 CPD credits.

# Gretchen Norling Holmes, PhD

Author, The Work In Between: A Memoir About Stepping Out of My Shadows



#### about the author

A three-time cancer survivor, Gretchen Holmes, PhD, is a dynamic speaker and host of The Work in Between podcast where she and her guests take a deep dive into the struggles, joys and daily actions that move us toward physical, emotional, and spiritual health. She holds a doctorate in health communication from the University of Kentucky. She is driven by her passion to bring humanity back into medicine through patient-centered communication and compassion. She lives with her husband, Ronn, in Conroe, TX.

#### about the book

After losing over one-hundred pounds and surviving cancer multiple times, Gretchen Norling Holmes, PhD, was a new person. The

differences in her body were obvious. But the real changes went far beyond her appearance. An extension of her hit podcast, Holmes's inspiring memoir, The Work In Between, recounts her story of transformation. Diving deep into the ways childhood trauma, unregulated emotion, and a lack of self-love shaped her body and her soul, Holmes traces her journey to recognizing her own inherent worthiness-and using that beautiful understanding to transform herself from the inside out.

#### presentation topics

- Transforming Your Life and Reclaiming Your Power (From the Inside Out)
- Creating Behavior Change through Patient-Physician Partnership
- Understanding Emotional Eating and the Connection Between Trauma and Obesity
- Fostering Effective Doctor-Patient Communication
- Training Medical Students in Supportive Patient Communication



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# **BOOK OF ABSTRACTS**



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# 4<sup>th</sup> Edition of World Obesity and Weight Management Congress

# **KEYNOTE FORUM**

# Transitioning off of GLP1 agonists in a healthy way while maintaining weight loss

**7**orldwide, nearly 40% of adults are overweight and 13% can be categorized as obese. Health consequences of excess weight are well-established and include elevated risk of cardiovascular diseases, heart failure, type 2 diabetes, dyslipidemia and an overall increase in mortality. Treatment of obesity is challenging and calorie restriction often leads to rebound weight gain which may devolve into a fluctuating pattern of loss and gain. Treatments such as bariatric surgery are invasive and carry their own risks. GLP1 medications have revolutionized weight loss and can reduce body weight in obese patients with and without diabetes by between 15% and 25% on average after about 1 year. Their mode of action is to mimic the endogenous GLP1, an intestinal hormone that regulates glucose metabolism and satiety. However, GLP1 drugs carry known risks and, since their use for weight loss is recent, may carry unforeseen risks as well. These drugs carry a boxed warning for people with a personal or family history of medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2. Gastrointestinal adverse events (nausea, vomiting, diarrhea) are fairly common while pancreatitis and intestinal obstruction are more rare. There may be loss of muscle mass and premature facial aging. A tremendous disadvantage of using these medications is the high rate of weight regain when they are discontinued. The management of weight loss induced with GLP1 therapy is a critical topic, especially for the many young persons who are currently using these drugs and for whom it is inadvisable to continue indefinitely. The longer they are treated, the more adverse effects may be revealed. It is highly desirable to achieve a balance between success with pharmacologic treatment and then weaning to avoid future negative effects and this is particularly important for those who plan pregnancy. GLP1 drugs are also being applied for weight loss prior to elective surgery where obesity poses an obstacle and this group would also see health benefits if weight control can be maintained after the drug is stopped. While long-term data on effects of GLP1 drugs are scarce, lifelong use of these drugs by a generation of individuals for weight control would be an unwarranted experiment of monumental proportions with an unknown outcome. We present literature-based suggestions for building a roadmap to successful weight maintenance after completing a defined course of GLP1 therapy.

#### Audience Take Away Notes

- The risks and benefits of GLP1 treatment for obesity and the need to plan for discontinuation of treatment without weight regain to avoid lifelong dependence
- Health professionals are using GLP1 medication at an increasing rate to bring about weight loss in persons who will face health



#### Allison B. Reiss M.D<sup>1</sup>, Joshua De Leon M.D<sup>2</sup>

<sup>1</sup>Department of Medicine and Biomedical Research Institute, NYU Grossman Long Island School of Medicine, Mineola, NY 11501, USA

<sup>2</sup>Department or Medicine, Division of Cardiology, NYU Grossman Long Island School of Medicine, Mineola, NY 11501, USA

#### Biography

Allison B. Reiss: Allison B. Reiss, M.D. is a Board-Certified internal medicine physician, educator and molecular biologist who studies the immune and inflammatory mechanisms that promote the development of cardiovascular disease and Alzheimer's disease. Her research is directed toward finding effective therapies for these disease states. Dr. Reiss has a strong passion for community outreach and is dedicated to improving healthcare, especially for older populations. Dr. Reiss is Head of The Inflammation Laboratory and Associate Professor of Medicine at NYU Grossman Long Island School of Medicine. She is well-published in medical and scientific journals and has chaired symposia at national and international conferences.

consequences from the drug that will worsen with longevity of treatment. There is a pressing need for individualized planning to stop the drug and avoid rebound weight gain

- The contents of this talk will be useful to physician-educators who are responsible for overseeing weight loss programs
- The suggestions for managing discontinuation of GLP1 drug treatment with weight maintenance are practical, clinically relevant and can be implemented in the office setting
- The guidance here can assist in designing individualized plans for patients



Joshua De Leon: Joshua De Leon: Joshua De Leon, M.D., is a Board-Certified cardiologist and Associate Professor of Medicine at NYU Grossman Long Island School of Medicine. After completing a fellowship in clinical and molecular cardiology, he went on to clinical work treating patients with cardiovascular disease, focusing on Acute Coronary Syndromes (ACS). His research efforts are directed toward understanding the cellular and molecular mechanisms underlying ACS as well as the more chronic processes underlying atherogenesis. His research has included extensive collaboration with Dr. Allison Reiss. Their work has been highly productive, leading to multiple publications. He is Associate Editor of the Journal of Investigative Medicine.

# What we should know about the Cardiac Autonomic Neuropathy (CAN)?

Cardiac Autonomic Neuropathy (CAN) is a frequent but underdiagnosed complication of obesity and diabetes mellitus. It has a strong influence on various cardiac disorders including myocardial ischemia and infarction, hypertension, orthostatic hypotonia, heart failure, and arrhythmias. CAN can lead to severe morbidity and mortality and increase the risk of sudden cardiac death. The early diagnosis of CAN can improve the prognosis and reduce adverse cardiac events.

My presentation will summarizes the latest evidence regarding the epidemiology, pathogenesis, influence on the cardiovascular system, and diagnostic methods for CAN.



# Andrzej Bissinger MD, PhD, FESC

Cardiologist, Medical University of Lodz, Poland

#### Biography

Dr. Andrzej Bissinger is a cardiologist and cardiac electrophysiologist. He graduated Medical University in Lodz, Poland in 1993, received his PhD degree in 1997 at the same institution. He is certified cardiologist since 2003 and Cardiac Device Specialist of European Heart Rhythm Association since 2007. He is a member of International Society of Holter & Noninvasive Electrocardiology; Polish Cardiac European Society; Society of Cardiology; European Heart Rhythm Association. He has published more than 76 research articles in SCI(E) journals. He was an investigator in several clinical studies. At present he works as a Head of Cardiac Electrophysioloy Lab in Department of Cardiology, 'Kopernik' Hospital, Lodz, Poland. His fields of work are general cardiology, non-invasive and invasive treatment of arrhythmias and treatment patients with heart failure.

# Effectiveness of indigenous Indian methods on obesity management - Experience from a wellness clinic experience

#### Medlish Scope of work:

- To develop a study design-dyslipidaemia, height weight ratio, etc.
- Post data collection by the doctor-data analysis, abstract and slides to be done for an upcoming conference to be held in Baltimore, USA.

#### Study Design:

Aim: Effectiveness of indigenous Indian methods on obesity management

**Background:** Our obesity management is an integrated form of Indian Traditional medicines namely Siddha, Ayurveda, and Varma, which reduces the weight in the natural way and helps to be brisk, hale, and healthy. Also, it maintains the balance in the proportions of Vadha, Pitha and Kabha and prevents the accumulation of excess fat.

Obesity prevention program fuse the scientific logic with India's traditional strengths. In this article, instead of broad ideas, we offer some specific traditional Indian customs which may offer innovative solutions at low cost-maternal nutrition, walking, yoga, meditation, and the traditional Indian folk-dance systems. These are examples of low-cost, indigenous, appropriate, and effective public health strategies, which can work wonders. The catch is: we must accept, and advocate, these strategies.

The first method that we suggest is yoga. This is a uniquely Indian system of health living. Adopted extensively by Western scientists, we are now waking up to the scientific benefits of yoga. In addition to improving physical activity, yoga can help in preventing stress. Stress



**Ashok Sharma** Apollo Hospital, India

#### Biography

Dr. Ashok Sharma, MD medicine, Geriatric medicine course Mediversity, Virology certificate course Mayo clinic. Present working as a Physician at Apollo hospital Delhi India. Assistant Professor of medicine at Prasad Institute of Medical Sciences, Lucknow Member Management committee Diabetes US 2021 Orlando and Diabetes 2023 Boston Indian academy of Ecocardiography, Global association of physician of Indian origin Presenting Web talks as speaker at National and International conference.

has been linked to diabetes, obesity and cardiovascular disease. It is not known whether yoga can help in the treatment of obesity; indeed, many obese subjects may find yoga difficult to practice. Several studies have shown yoga to be useful in diabetes. However, if encouraged in schools and colleges in India, yoga can help in preventing stress and may well turn out to be a low-cost strategy in preventing diabetes, obesity and cardiovascular disease.

Another traditional Indian approach which may help tackle the obesity epidemic is our good old Indian folk-dance system. Dancing for health is not a new concept. Several publications have suggested that dancing is an effective strategy for improving fitness. From Bihu of Assam to Bhangra of Punjab, not to mention the thousands of equally versatile dance forms, India's dance forms have been recognized as perfect and brilliant, both in their design, content and expression. However, an often-overlooked aspect of these dances has been the biological aspect. Indian dances are physically energy-consuming and can make physical activity fun. This is not to suggest that Western dance forms do not require physical effort. Most certainly, Western ballet or rock dancing is hard to perform and physically tiring but is hardly propitiate for our culturally acclimatized youth. Common dances associated with Western origin, such as party dancing, are associated with consumption of junk food and alcohol use, and these factors may attenuate the potential benefits of dance. Along with the Indian dance forms, some Indian martial arts like Kalaripayattu from Kerala and Thang Tha from Manipur will make physical activity fun, especially for schoolboys and

college-going youth who may not relish the idea of learning traditionally accepted dance forms.

#### Methods:

Study population: Individuals approaching a wellness clinic for obesity management.

**Inclusion criteria:** Overweight to obese individuals (BMI  $\ge 23$ kg/m<sup>2</sup>).

**Exclusion criteria:** Individuals undergoing concomitant therapy, with other comorbidities. Indian Indigenous methods: Information to be obtained from the participating wellness clinics.

#### Study design

Visit 0	Visit 1	Visit 2	Visit 3	
	Month 1	Month 2	Month 3	
Screening Follow-up		Follow-up	Follow-up	
Informed consent	Recording of parameters	Recording of parameters	Recording of parameters	
Acquiring baseline data	Assessment of adherence to	Assessment of adherence to	Assessment of adherence to	
Initiation of treatment	treatment	treatment	treatment	

#### Study parameters:

- Age
- Gender
- Height
- Weight
- BMI
- Waist circumference
- Neck circumference
- Waist: hip ratio
- Skinfold thickness
- SBP
- DBP
- HbA1c
- LDL
- HDL
- Total cholesterol
- Total Triglycerides

- C-reactive protein
- Adverse event
- Data analysis:
- 1. Number of individuals achieving a goal of a minimum weight loss of 1 kg/ month.

2. Compared to baseline weight- number of individuals with a weight loss of >2% for the first month, 3% in the second month and >5% sustained weight loss in the long term (6 months to one year).

- 3. Trend in weight loss.
- 4. Trend in other clinical parameters
- 5. Adherence to hypocaloric diets and
- 6. Levels of physical activity
- 7. Find odds ratio with 95% CI (based on the LOOK AHEAD study)
  - Benefits associated with 5-10% weight loss.
  - 0.5% reduction in HbA1c
  - 5mm reduction in SBP
  - 5 mm reduction in DBP
  - 5mg/dl increase in HDL cholesterol
  - 40 mg/dl reduction in triglycerides

#### Effective strategies for weight loss

**T**otal Energy Expenditure (TEE) is comprised of four major bodily processes: basal metabolic rate (i.e., rate at which the body uses energy at rest), non-exercise activity thermogenesis (i.e., amount of energy expended performing daily tasks), thermal effect of food (i.e., amount of energy expended processing food for use and storage), and exercise activity thermogenesis (i.e., amount of energy expended while exercising). Understanding these four components of caloric expenditure can help individuals make informed decisions regarding their lifestyle that, if implemented, can have a profound impact on weight management. For example, if the primary goal is to lose weight, individuals should strive to increase the number of calories expended per day from each of the four components. Participating in regular resistance training can help to increase Basal Metabolic Rate (BMR); intentionally choosing manual instead of automated physical activity options can help to increase Non-Exercise Activity Thermogenesis (NEAT); eating more nutrient dense instead of more processed foods can help to increase the Thermal Effect of Food (TEF); and regularly participating in planned and structured physical activity can help to increase Exercise Activity Thermogenesis (EAT). Other strategies for effective weight loss include setting reasonable goals, maintaining a negative energy balance, increasing the amount of daily physical activity, and making small, but permanent, changes to one's diet.

#### Audience Take Away Notes

- Participants will learn the key factors associated with weight management
- Participants will be provided with tangible recommendations/ strategies for effective weight management
- Participants will learn how to determine daily energy requirements



#### Dr. David D. Peterson

School of Allied Health & Psychology, Cedarville University, Cedarville, OH, United States

#### Biography

Dr. Peterson is a retired Naval Aerospace/Operational Physiologist with over 20 years of active-duty service experience and Certified Strength and Conditioning Specialist. He has earned multiple degrees in Exercise Science and is a member of the National Strength and Conditioning Association. Dr. Peterson has published numerous peer-reviewed journal articles, two textbooks, and presented at multiple state, national, and international conferences on various topics pertaining to body composition and physical fitness. Having served previously as both the Director of the Human Performance Lab and Deputy Director of the Physical Education Department at the U.S. Naval Academy, Dr. Peterson is now an Assistant Professor within the School of Allied Health and Psychology at Cedarville University.

#### 2-Minute weight loss

Obesity in America continues to rise, and the CDC states that "The (annual) medical costs for people who have obesity were \$1,429 higher" (than non- obese adults). Obesity is comorbid with Pre-Diabetes (PDM) which affects over 500 million people, worldwide, and the expense of treating this disease is estimated to exceeded \$870 Billion US dollars.

The purpose of this session is to discuss current research which examines the efficacy of food allergen elimination and the Aerobic-surge exercise regime on each pathology. We will discuss longitudinal outcomes (>24 months) and Dr. Willis will close this session by discussing the financial savings in reductions from these diseases and conditions.

A longitudinal case/control study of food allergen elimination for obesity reduction (N=94) and all therapeutic groups showed a significant change in weight, BMI, BP, and waist circumference (P<0.0001). A financial posthoc examination of 20 subjects from the experimental groups for 12 months beyond that trial revealed a significant financial savings.

#### Methods we will discuss the following "2-minute" protocols:

- Nutritional assessment, identifying chemicals such as TBHQ that drop the basal metabolic rates will be addressed.
- 2-Minute aerobic-surge, exercises, the multiple studies using this protocol for fat loss will be discussed.
- Food allergen testing, this valuable tool will be discussed.
- Pre-meal planning, we will show the benefits of "plan the eats and eat the plan" for daily fuel consumption.

The financial savings in a recently completed post-hoc study was -\$1,810 USD (range -\$900 to -\$4,000 USD). The savings came from reduced medical appointments and procedures, plus reduced medication for obesity, type 2 diabetes, irritable bowel syndrome, and hypertension. This session will examine efficacy and financial savings from food allergen elimination and the aerobic-surge protocols in reversing obesity, pre-diabetes, irritable bowel syndrome and hypertension.

#### Audience Take Away Notes

- The audience could learn benefits (in comparison) or eliminating food chemicals
- Speakers will also show effect on associated comorbid pathologies of pre-diabetes, irritable bowel syndrome and hypertension
- Our recent research is both viable for clinical practice and in medical academia
- This will show efficacy in treating one of the causes of obesity and associated conditions
- We will also discuss open research options with our audience



#### F. Buck Willis\* PhD, MD, FACSM, Bronson Flint MD4

IUHS School of Medicine, Saint Kitts and Nevis

#### Biography

Dr. Buck Willis started his life again following what the FAA categorized as a "Fatal Plane Crash." He overtook the challenges from a 3-year series of 16 operations to rebuild his legs by later Squatting 230kg. After the crash he also earned four degrees, now including his MD, and his research has changed the standard of care in rehabilitation medicine (over 50 publications with eight books and 45 presentations). After earning his PhD in kinesiology, he was chosen to be a Fellow of the American College of Sports Medicine.

# Pre-diabetes reduction from ALCAT food allergen elimination: A controlled, pilot study

Type 2 Diabetes (T2D) affects over 500 million people, worldwide, and the cost of this disease is estimated to exceeded \$970 Billion US dollars. T2D is comorbid with obesity and hypertension, and the purpose of this 6-month study was to determine if food allergy elimination is effective in reducing the HbA1c values in Pre-Diabetic (PDM) patents.

Twenty-four PDM subjects (with obesity and hypertension) enrolled in this study. All subjects received nutritional counseling with aerobic exercise training, and Control (CON) subjects received no further treatment. Experimental category (EXP) subjects also had ALCAT leukocyte reaction testing to identify sub-acute food allergens (N=250 foods). Food Allergens were eliminated for the 6-month study duration.

The dependent variables in this study were changes in HbA1c and BMI values. The independent variables included changes in fat mass, blood pressure, and waist circumference. Differences were calculated using a repeated measures ANOVA.

The results at 180 days revealed that EXP subjects showed a mean reduction (-0.7 HbA1c), while CON showed increased values (+0.5 HbA1c), (P<0.0001). EXP also showed significant changes in BMI (-1.1), Blood pressure (-25% systolic, -20% diastolic), Fat Mass (-18 pounds), and waist circumference (-2"). There were not significant changes for CON subjects (P>0.5). This series of funded studies will include sites where incidence of T2D has shown substance growth (such as Jamaica and the Philippines) and then we will conduct a 5-year outcome study of this protocol.





Dr. F. Buck Willis<sup>1\*</sup> PhD, Medic, FACSM; Parminder S. Chahal<sup>2</sup> MD; Bronson Flint1 MS<sup>4</sup>; Patch Adams<sup>3</sup> MD; Andrew Merry<sup>1</sup> MD, PhD

<sup>1</sup>International University of Health Sciences (IUHS), School of Medicine, Basseterre, Saint Kitts & Nevis

<sup>2</sup>Integrity Internal Medicine, Peoria AZ, USA

<sup>3</sup>Gesundheit Institute, Urbana IL, USA

#### Biography

Dr. Willis' second life started after what should have been a fatal airplane crash! During the 3-year series of 16 operation to rebuild his legs, Dr. Willis started graduate school and designed his first clinical trial. (He later squatted 230kg and earned MEd, MBBS, and PhD.) Ten years after earning a PhD, his research was recognized when he was chosen to be a Fellow of the American College of Sports Medicine. Willis has over 50 publications including eight books and has completed his MD at age 60 (IUHS School of Medicine). Dr. Willis will direct global research on Pre-Diabetes Reduction.

#### Audience Take Away Notes

- How can food allergen elimination reduce HbA1c and Pre-Diabetes (PDM)?
- As used in obesity reduction, how does the ALCAT, leukocyte testing help in reversing pre-diabetes and compare to other food allergy tests?

- What are the long-term (2 year) outcomes for HbA1c?
- How can the brief, repeated 2-minute Aerobic-surge exercises help PDM?
- How can you participate in a future, 5-year global trial of this protocol?

# Patient advocacy: Navigating the healthcare environment to protect your weight loss goals

H ealthcare has gotten complicated, especially for patients who are trying to make informed decisions around their healthcare goals, and especially around obesity and weight loss. There's a lot of noise out there. From provider-patient interactions to product misinformation, to navigating the complex healthcare environment, it can be overwhelming for patients who are just trying to reach their health-related goals.

In this presentation, I will discuss best practices for patient advocacy for:

- Optimal provider-patient interactions that are focused on obesity
- How to evaluate the options for weight loss
- How to navigate the healthcare environment to protect your weight loss goals



#### **Gretchen Holmes**

Sam Houston State University, United States

#### Biography

Dr. Gretchen Holmes is an awardwinning and accomplished senior-level hospital executive, Graduate Medical Education (GME) DIO, Clinical Trials Leader, and an experienced social science researcher/methodologist who is driven by her passion to bring humanity back to medicine by fostering a learning environment that teaches future providers to be compassionate and competent and to embrace patient centered-care. She earned her BS and MA degrees from New York University and her PhD in Health Communication from the University of Kentucky with a Graduate Certificate in Medical Behavioral Science. She currently serves on the editorial board for the Journal of Patient Experience.

Advancing enobosarm, an oral novel Selective Androgen Receptor Modulator (SARM), to avoid muscle loss and augment fat loss when combined with a Glucagon-Like Peptide-1 Receptor Agonist (GLP-1 RA) drugs for potentially higher quality weight loss

Highlighting the concerns that muscle loss caused by GLP-1 receptor agonists may accelerate the development of frailty in at-risk older sarcopenic obese patients with potential for physical function limitations, may be responsible for weight loss plateau where GLP-1 seem to stop working, and may trigger the overeating with rebound fat and weight regain upon stopping GLP-1 RA.

Presenting the 5 clinical studies of enobosarm in older patients and in patients with a cancer induced loss of appetite hypocaloric-like state that provide strong scientific rationale for ongoing Phase 2b enobosarm+GLP-1 RA clinical study.

Supporting evidence that enobosarm in combination with a GLP-1 RA may potentially augment the fat reduction with higher quality total weight loss while preserving muscle and physical function.

#### Audience Take Away Notes

- Understand the current unmet needs with muscle loss caused by GLP-1 receptor agonists for weight-loss
- Appreciate the importance of high-quality weight-loss, preferentially removing fat while preserving muscle
- Learn about the development of new approaches to achieve highquality weight-loss



Jeffrey Crawford<sup>1</sup> MD, Adrian S. Dobs<sup>2</sup> MD, William Evans<sup>3</sup> PhD, Carla M. Prado<sup>4</sup> PhD, Domingo Rodriguez<sup>5</sup> MD, Itay Shalev<sup>5</sup> PhD, K. Gary Barnette<sup>5</sup> PhD, Mitchell S Steiner<sup>5\*</sup> MD

<sup>1</sup>Dept of Medicine, Duke Cancer Center, Durham, NC, USA

<sup>2</sup>Johns Hopkins Clinical Research Network, The Johns Hopkins Hospital, Baltimore, MD, USA

<sup>3</sup>Department of Medicine, Duke University School of Medicine, Durham, NC, USA

<sup>4</sup>Ag, Food & Nutri Sci Dept, University of Alberta, Edmonton, AB, Canada

<sup>5</sup>Department of Research and Development, Veru Inc., Miami, Florida, USA

#### Biography

Mitchell S. Steiner, M.D., F.A.C.S. has served as Executive Chairman, President and Chief Executive Officer of the Company and as a director of the Company since October 2016. Dr. Steiner was the co-founder of Aspen Park Pharmaceuticals and served as Aspen Park's Chief Executive Officer, President and Vice Chairman of the Board from July 2014 to October 2016. From 2014 to 2016, Dr. Steiner was a strategic consultant and then the President, Urology and member of senior management of OPKO Health, Inc. (NASDAQ:OPK) and had responsibilities for the launch, marketing, sales and reimbursement of 4Kscore prostate cancer test to urologists and primary care physicians. Dr. Steiner was also the co-founder of GTx, Inc., a men's health and oncology public company, where he served as Chief Executive Officer and Vice Chairman of Board of Directors from 1997 to 2014. Dr. Steiner is a Board-Certified Urologist and a Fellow of the American College of Surgeons and has held numerous academic appointments, including Assistant Professor of Urology, Cell Biology, and Pathology at Vanderbilt School of Medicine from 1993 to 1995 and Chairman and Professor of Urology, Director of Urologic Oncology and Research and the Chair of Excellence in Urologic Oncology at the University of Tennessee from 1995 to 2004. Dr. Steiner holds a B.A. in Molecular Biology and Chemistry from Vanderbilt University and an M.D. from the University of Tennessee. He performed his surgical and urologic training at The Johns Hopkins Hospital and postdoctoral research fellow in cell biology at Vanderbilt School of Medicine.

#### Short duration metabolic measurements by whole room indirect calorimetry as an adjunct for obesity treatment and athletic training

Background: Previously, 24-hour Resting Metabolic Rate (RMR) or Exercise Energetics (EX) were determined utilizing metabolic carts, with typical measurement durations from 30 to 45-minutes, respectively (Balci et al, 2021; Guerrero et al, 2020). Major disadvantages of metabolic carts are the subject's physical connection to instrumentation using ventilated hoods or head-gear and the lack of calculation of carbohydrate and lipid oxidation. Moreover, metabolic carts themselves can produce highly inaccurate results (Rising et al, 2015; Rising et al, 2016). Finally, physical connection of the subject to instrumentation can cause anxiety (Malone, 2002), contributing to additional errors in metabolic results. Previously, specific Whole Room Indirect Calorimeters (WRIC's) have been validated for the determination of 24-hour RMR (Rising et al, 2015) and EX (Rising et al 2016) from 60-minute measurement durations. The purpose of this presentation is to show that accurate metabolic measurements of 24hour RMR and 1-hour EX can be obtained in just 30-minutes, similar that of metabolic carts.

**Methods:** For simulated 24-hour RMR, ten 30-minute propane (99.5 % purity) combustion tests were performed using a standard torch (Model UL2317, Bernzomatic Inc., Chilton, WI USA). Burn Rate (BR; g/min) were determined by recording the propane weight prior to and after test completion using an analytical balance (Mettler Toledo Model MS1602S/03, Mettler Toledo LLC, Columbus, OH USA). For simulated EX, ten thirty-minute propane (99.5 % purity) combustion tests were performed using a larger burner (Coleman Model 5431B, The Colman Company, Wichita, KS USA) to simulate exercise. The BR was determined as described previously. All respiratory exchange measurements were derived utilizing the Promethion (Model GA3m2/FG250) integrated system (Sable Systems International, North Las Vegas NV USA). Instrumentation was calibrated according to the manufacturer's instructions.

The modified Weir equation was utilized to calculate Energy Expenditure (EE; kcal), assuming 66 mg/min protein oxidation. Ventilation rates (V; liters) of Oxygen (VO<sub>2</sub>), Carbon Dioxide (VCO<sub>2</sub>) and the respiratory quotient (RQ; VCO<sub>2</sub>/VO<sub>2</sub>) were also calculated on a per minute basis. Finally, oxidation rates for glucose and lipids were also calculated (Kelly



#### **Russell Rising Ph.D**

D & S Consulting Services Inc, New York, NY USA

#### Biography

Dr. Russell Rising obtained his Ph.D. from the University of Arizona, Tucson. He started his career by inventing the World's First Whole Room Indirect Calorimeter (WRIC) for infants at Maimonides Medical Center, Brooklyn, NY. He then created several types of animal WRIC's, including one for nonhuman primates. Finally, he has created seven human adult WRIC laboratories worldwide comprising of 22 metabolic rooms. He has over 55 publications, been featured on television broadcasts, as well as holding a full adjunct professorship at China's largest medical school. Currently, he is President of Research and Development of D & S Consulting services Inc.

and Basset, 2017). Thirty-minute data were then extrapolated to 24-hours for RMR and one-hour for EX and compared to propane stoichiometry.

Statistical analysis was performed utilizing SPSS (Ver 27, Chicago, IL).

#### **Results:**

	24-hour extrapolated RMR		one-hour extrapolated EXEE			
	Propane	RMR-WRIC	p<0.05	Propane	EX-WRIC	p<0.05
BR	0.1623			0.6698		
VO <sub>2</sub>	594.4 ± 39.3	597.0 ± 55.8	0.91	102.3 ± 16.0	$103.4 \pm 16.7$	0.88
VCO <sub>2</sub>	356.9 ± 23.6	356.5 ± 25.4	0.97	$61.4 \pm 9.6$	$61.5 \pm 9.7$	0.98
RQ	$0.60 \pm 0.00$	$0.60 \pm 0.02$	0.87	$0.60\pm0.00$	0.60 ± 0.01	0.15
EE	2785.4 ± 184.3	2746.1 ± 247.8	0.69	479.0 ± 75.0	475.6 ± 76.8	0.92

**Conclusions:** Accurate determinations of 24-hour RMR can be obtained from just a 30- minute metabolic measurement. Furthermore, like 24-hour RMR, one-hour EX can be accurately obtained from just a 30-minute metabolic measurement. Finally, these results suggest that WRIC's may be suitable as an adjunct for obesity treatment and enhancement of athletic performance, with measurement durations similar to that of metabolic carts

#### Audience Take Away Notes

- The audience will have an understating of the ease of using whole room indirect calorimetry as an adjunct for any kind of treatment program where accurate recording of metabolic rate is necessary. They will also understand the advantages of whole room indirect calorimetry over that of metabolic carts, both in terms of subject comfort and accuracy of metabolic measurements. Furthermore, anyone in the audience who is involved in the exercise sciences will understand how accurate measurements of exercise energetics can enhance athletic performance. This is a much underserved area of the metabolic sciences in terms of whole room indirect calorimetry. They will see the versatility of whole room indirect calorimetry in terms of the metabolic measurements for just about any physical activity, unlike that of metabolic carts that are usually restricted to just running or cycling, due to the subject connection to the instrumentation
- Accurate metabolic measurements could shorten treatment durations for obesity thus saving time and money for those professionals involved. Furthermore, this will allow greater patient thru put thus possibly increasing revenue. Finally, with greater accuracy and subject comfort, success rates in these various obesity treatment programs and athletic training will be greatly increased
- The information presented to the audience will allow the implementation of metabolic measurements in many disease states such as cancer, Huntington's disease or metabolic syndrome. Faculty in various departments such as Endocrinology, Physiology, or any other discipline, may benefit from accurate metabolic measurements for their research

- The increased accuracy of metabolic measurements, without the need for subject connection to instrumentation, opens a wealth of possibilities in terms of any kind of research involving nutritional enhancement, athletic performance in various sports as well as the understanding of the metabolic profiles of patients whom have, or are being treated for various diseases such as cancer, diabetes, obesity, or any other medical condition
- The versatility of whole room indirect calorimetry allows metabolic measurements under many experimental conditions that were not possible with metabolic carts. Furthermore, the ease of use and subject comfort of whole room calorimetry will allow metabolic measurements in larger numbers of subjects and better attrition rates for various studies

#### **Beyond Ozempic and diets**

Headlines have been ablaze with a supposed miracle treatment for weight control, the use of injection semaglutides like ozempic, wegovy, and mounjaro--or its newer version, zepbound. This frenzy sparks an important conversation on the state of dieting, for this may be the first time in the history of medicine that millions cannot wait to inject themselves It is a rush so great it even overcomes one of the most universal of fears, trypanophobia, fear of needles.

The reason so many have had to summon up their courage to depend on needles is the sense of desperation from repeated failures at dieting. You will see some of the most brilliant people in our society when you look at the millions of "diet failures." Many of these individuals do not lack willpower or nutritional knowledge. How has the dietetic model failed? It is based on false assumptions about human behavior and wishful thinking, rather than hard science and the simple observation of human behavior.

We will cover in this presentation principles of dieting and weight loss that cut across all diet programs including those that include the route of injections, the missing fundamentals in diet programs, the tips and insider secrets from the 20,000 patients that my colleagues and I have worked with over the decades, and the powerful concepts of the emergent field of behavioral nutrition.

#### Audience Take Away Notes

- The principles of behavioral nutrition carry over not only in eating, diets, weight control but also in life
- Individuals will be able to understand their eating print which involves their food history, why and how their body responds to their own biology, environment, advertising, and other external forces that affect weight gain and ultimately obesity
- The audience will also learn clever, insider tips and secrets that the winners at weight control, those that lose the weight and keep it off for good, have incorporated for their success
- The audience will also learn one of the greatest principles, and necessary understanding in weight loss, something greater than willpower
- The principles incorporating psychology, advertising, behavioral nutrition, forms a new model that I have developed that doctors, nutritionists, professors, and dieters will be able to use in their practice and help many



#### Dr. Stephen Gullo

Center for Health Sciences, United States

#### Biography

Dr. Stephen Gullo received his doctorate in psychology from Columbia University, post-doctoral studies in nutrition at the Campbell Center for Nutrition at Cornell. He served as a professor/researcher at Columbia University Medical Center. He was honored at an international gathering at the United Nations, hosted by the President of the United Nations General Assembly and awarded the prestigious Schoenberg Award by colleagues from Columba and Harvard "for the development of unique and creative modes of weight control." His work has been featured in over 20 cover stories including three in The New York Times, the Chicago Tribune, Hollywood Reporter. He is one of the pioneers of the Behavioral Nutrition model for clinical weight control and the founder of the Center for Health Sciences in New York City. His book: "Thin Tastes Better" was a national best seller. When The New York Times conducted a survey of the nation's leading weight experts for its prestigious T-List Dr. Gullo was honored to be one of the two.

#### GABA-A receptor modulating stress and sex neurosteroid influence on the regulation of feeding, overeating and obesity

besity is strongly associated with ill health and obesity is mainly influenced by energy intake and energy expenditure via mechanisms based on needs of energy and reward. The hypothalamus plays a major role in feeding control, particularly the Arcuate Nucleus (ARC) and Paraventricular Nucleus, (PVN). ARC has a weak blood brain barrier and receives blood-borne inputs like hormones or sugar. In the ARC there are two populations: 1) the food intake-stimulating Agouti-Related Protein (AgRP)/Neuropeptide Y (NPY) neurons 2) the food intake-inhibiting Proopiomelanocortin (POMC) neurons. GABAergic transmission in the hypothalamus is needed for normal feeding regulation. Excitatory release in PVN by POMC neurons give satiety promotion. If PVN is inhibited increased food intake occurs. GABA and NPY release inhibit satiety neurons in PVN and give hunger promotion. GABA projection is required for ghrelin to stimulated food-take. NPY/AgRP cells excited by ghrelin gives hunger promotion. Ghrelin projection to POMC acts via GABA-A receptor activation and gives hunger promotion. Leptin and insulin inhibit AgRP/NPY neurons but stimulate satiety promoting POMC neurons projecting to PVN, while the hunger hormone ghrelin has opposite effects.

**Conclusion:** GABA activation enhances hunger and decrease satiation. GABA stimulates food intake by activating GABAA receptors (primarily with  $\alpha$ 3 and  $\alpha$ 2 subunits) in the hypothalamic ARC and PVN. Endogenous



#### Torbjörn Bäckström

Department of Clinical Sciences, Umea University, Umea, Sweden

#### Biography

Torbjörn C. Bäckström MD., PhD. Professor, currently works at the Clinical Sciences, Umea Neurosteroid Research Center, Norrlands University Hospital. Torbjorn does research in sex and stress steroids effects in the brain, neurosteroids, neurology, mood disorders and appetite/obesity. Their current project is 'Satiety' induction in polycystic ovarian syndrome and prader willi syndrome.

positive GABA-A-receptor modulating sex and stress steroids like the progesterone metabolite Allopregnanolone (Allo) induce hyperphagia. In animal models Allo increase food intake, preferences for energy-rich food, and weight increase. In obese humans Allo levels are high and in women with polycystic ovarian disease high levels are linked to uncontrolled eating and increases in weight. Allo concentration increases during pregnancy and the degree of concentration increase correlates to the excess in weight increase. Treatment with a GABA-A receptor Modulating Steroid Antagonist (GAMSA) with only alpha 3 receptor subtype antagonism reduces dose dependently Allo induced appetite increase in animal models. Some women with premenstrual dysphoric disorder show increased appetite during luteal phase when Allo is high. A double blind randomized clinical trial shows significant appetite reduction with GAMSA treatment compared to placebo.

However, regulating food intake also occurs through mechanisms involving rewarding, emotional and cognitive drivers rather than hunger alone. The GABA-ergic system is involved in the reward system influencing activity of dopamine neurons. Thus, both GABA and Allo might indirectly influence dopamine-induced food intake.
- Food intake, weight gain and allopregnanolone status are related in humans
- GABA and GABAA receptors are involved in regulation of food intake
- Endogenous positive GABAA receptor modulating steroids stimulate food intake
- Allopregnanolone, induces weight gain by increasing food intake and preference for energy-rich food

### The hidden secrets to overcoming obesity & diabetes

This talk will use 'real people' case studies to demonstrate: The Power of knowledge, connection, and action in overcoming obesity & diabetes

### **Key Points**:

- **Beyond information:** The synergy of knowledge and connection.
- Discover how personalised education and clear simple communication empower individuals to transform their health journeys.
- Learn from real-life success stories where knowledge paired with supportive coaching led to sustainable habit changes.
- Explore strategies connection body, mind & brain that take away uncertainty and build self-trust.
- The Psychology of change: Understanding thoughts, feelings, and behaviours.
- Gain insights into the cognitive and emotional factors that influence eating habits and lifestyle choices.
- Understand the importance of the A.R.T. of change self-awareness in identifying and overcoming barriers to health and why most people struggle.
- Unlock simple techniques to for build a positive mindset and resilience in the face of challenges and fear.
- Empowerment through choice: Nourishing the body and mind.
- Emphasise the significance of making informed choices that align with individual needs and preferences. Highlight the role of clarity and self-efficacy in achieving and maintaining a healthy lifestyle.
- Provide actionable tips and support for integrating healthy habits into daily routines without feeling overwhelmed or deprived.

These key points aim to engage the audience by addressing both the emotional, mental, physical and practical aspects of health transformation, making them eager to learn more about a whole person approach to overcoming obesity and diabetes.



### Vicky Midwood

Go Figure Coaching, United Kingdom

### Biography

Vicky Midwood-AKA: The Addictions Eliminator is an integrative health, nutrition, and lifestyle coach and has been in the fitness and wellness world for over 30 years. Creator of the BLAST Method to Feeling Fabulously Free based on science and personal experience she helps, smart, educated, high achievers over 35 reduce anxiety, shame, and guilt by eliminating the compulsion to selfsabotage with food or alcohol or both so they can thrive, not just survive day after day. She is Author of the book: Thrive Not Strive: A practical Guide to Feeling Happy, Confident & Healthy Again. Author of the Chapter: The Messy Madness That Set Me Free in the book Women Thrive-Inspiring True Stories of Women Overcoming Adversity and runs a weekly Podcast: Raw Chatter focused on the taboo topics others don't delve into.



# 0007 - 26

# 4<sup>th</sup> Edition of World Obesity and Weight Management Congress

### **SPEAKERS**



## Aboubacar Oumar Bangoura<sup>1\*</sup>, Mariama Beavogui<sup>2</sup>, Qian He<sup>3</sup>, Yao Weirong<sup>3</sup>

<sup>1</sup>Institut Polytechnique, Département de Génie Chimique, Concentration Agroalimentaire, Université Gamal Abdel Nasser de Conakry, BP: 1147, République de Guinée

<sup>2</sup>Faculté des Scienceset Techniques de la Santé, Département de Médecine, Chaire de Cardiologie, Université Gamal Abdel Nasser de Conakry, BP: 1147, République de Guinée

<sup>3</sup>School of Food Science and Technology, Southern Yangtze University (Jiangnan University), Jiangsu, Wuxi, 214036, P. R. of China

# Yeast application for desalting fibersol-2 to control digestive system and diabetes

The easier, low cost and helthier method for desalting fibersol-2 is called "yeast application for L desalting", which product is suitable for wheight management and to control diabete; compare to ion exchange chromatohraphy method for desalting fibersol-2. The method of yeast application for desalting fibersol-2 applied brewing yeast saccharomyces cerevisiae to separate a hight-moleculat weight fraction from free glucose, which is able to increase blood glucose level after consumption. In this method Saccharomyces cerevisiae was inoculated into the hydrolysate pyrodextrin (fibersol-2 with the free sugars). Before inoculation, total soluble sugar content (18%) was diluted to about 10-11%, which is the suitable concentration for yeast fermentation. The prepared solutions were sterilized, using an autoclave at 108°C, 0.04 MPa for 20 min. 0.5g and 1.5g per 100 ml of yeast were used for fermentation, and the mixtures were kept in tabletop heated incubating shaker for 1day and 3 days at 20°C and 30°C, in order to determine the optimum conditions for large scale production. Finally, yeast was removed by centrifugation (700g for 40min). A sample without dilution was also subjected to the fermentation process. The fermented solutions were stored at 4.0°C prior to High-Performance Gel Filtration Chromatography (HPGFC) analysis. The fermentation condition was optimally realized, and the glucose removal rate is 98.27% with the recovery 67.18%. The method of desalting fibersol-2 throught a column of strongly acid cation exchange resin for chromatography was also realized. In this method, the liquid resulting from the procedure of decolorization with activated carbon was concentrated to about 50% solution and thereafter passed through a column of strongly acidic cation exchange resin for chromatographic separation of a high-molecularweight fraction from the glucose fraction. The following prepared resins were used for this purpose (732# and 717<sup>#</sup>). The high-molecular-weight fraction was efficiently collected in the flow rate adjusted at the range of SW=0.1 to 0.6, the temperature of the liquid was also adjusted to 50°C, since lower temperatures entail inefficient separation and adverse effect on the resin, whereas higher temperature will color the liquid brown and otherwise degrade the liquid. Finally, the liquid was concentrated and dried by a spray dryer, to obtain a purified indigestible dextrin having high dietary fiber content. The glucose removal rate is proved by the absence of the glucose running time in the chromatogram; and the recovery is 64%. Both total dietary fibres content are 94%, even though the use of strongly acid cation exchange resin produces chemicals substances mixed with the prepared fibersol-2, which is not healthier. The in-vivo evaluation of fibersol-2 desalted by yeast indicated that this product help digestive system clean and healthier, prevent

**Keywords:** Fibersol-2 Desalted by Yeast, Strongly Acid Cation Exchange Resin, Weight Management, Free Glucose, Saccharomyces Cerevisiae.

### Biography

Aboubacar Oumar Bangoura is a former Minister of High Education and Scientific Research, Guinea; b. 18 December 1963, Research Scientist; Educator. s. Oumar Bangoura and Traore Mariama; m. Aïssata N'Diaye, Feb. 18, 2001; Children: Safiatou B., Ibrahim B., Kany B. & Aïcha B.. Education: PhD, Food Science, School of Food Science & Technology, Southern Yangtze University, China, 2005; MSc, Human Nutrition, School of Food Science & Technology, Wuxi University of Light Industry, China, 2000; B.Sc.Tech, Chemical Engineering, Food Technology, University Gamal Abdel Nasser of Conakry (UGANC), Guinea, 1991. Experiences: Head of Advanced Studies Services, UGANC, Dec. 2022; Head of Division in Advanced Studies Services, UGANC, March 2018; Assistant to Vice-rector in charge of Scientific Research, UGANC, Janv. 2012. Appointments: Assistant Lecturer, 2007-13; Assistant Professor, Research Lecturer, 2013-20; Professor, Director of Research, High education and Scientific research 16 November 2020; Publications: Comparative studies of ion exchange chromatography and yeast application for desalting fibersol-2 (Chapter of book Microbes in the Spotlight: Recent Progress in the Understanding of Beneficial and Harmful Microorganisms, Brown Walker Press., Boca Raton, Florida USA, 2016); Food application of fibersol-2 desalted by yeast and calcium chelated fibersol-2 (Chapter of book Industrial, medical and environmental applications of microorganisms: current status and trends, Wageningen Academic Publishers., 2014); In-vivo evaluation of fibersol-2 desalted by yeast and calcium chelated fibersol-2 (Chapter of book Microbes in Applied Research: Current Advances and Challenges, World Scientific Publishing Co., 2012); Yeast Application for Desalting Fibersol-2, International Journal of Food Science and Technology, UK, 2006); Honours : Who's who in the World, Marquis Publication, USA. 2016; Who's who in America, Marquis Publication, USA. 2016; Great Men and Women of Science, IBC, Britain 2018; Cambridge Certificate for Outstanding Scientific Achievement, IBC, Britain, 2016. Memberships: Formatex Research Center; EUREKA Science Ltd; Societé Ouest Africaine de la Chimie (SOACHIM). Address: Chemical Ingineering Department, Concentration of Food and Agriculture, University Gamal Abdel Nasser of Conakry, PO Box 1147, Conakry, Republic of Guinea.



**Akhila Harinarayan** ISG Provider Lens, Research Services, Information Services Group (ISG), Bangalore, India

# Information technology as an enabler for prevention and management of diabetes mellitus: The present and the future

The probable risk of getting diabetes or being diagnosed with diabetes is a difficult situation for any patient as they must deal with the associated complications and lifestyle changes caused by the disease. Science has progressed a lot in dealing with these complications and in the management of diabetes mellitus. Of late, the advent of information technology has enabled better management of diabetes mellitus and has improved the lifestyle of the patients. Some of the approaches include tailored web-based lifestyle intervention, telemedicine applications to reach patients, targeted services using smartphones, and social media as a motivator for weight management. While these are some of the approaches targeted at personalized services to the patients, there are also approaches targeted at a large scale for a wider group such as using social media for the prevention and management of diabetes. Mobile-health programs have had widespread popularity due to their accessibility and ease of usage. Programs targeted at specific population set encouraging a healthy lifestyle to prevent diabetes has seen traction over the years, firstly with mass communication over television, and now with healthcare apps and messaging over smartphones and the internet. With advantages derived from these use cases, the adoption of information technology has increased multi-fold. Digital technologies help in personalized services for patients' diabetes management and ease the burden on the patient and the healthcare system to a certain extent. In the future, information technology is expected to contribute to the multiple aspects of the prevention and management of diabetes mellitus. Some of the latest advances include non-invasive methods to measure blood glucose levels that help in reducing frequent needle pricks for the patient. Smart contact lens technology helps assess diabetes and further treat diabetic retinopathy. Smart pens and pumps for insulin delivery help automatically record insulin injected and helps analyse the information to recognize patterns and optimize therapy. Some of the applications use self-learning artificial intelligence algorithms to specifically adapt to patients' medical histories. These advancements are expected to improve the quality of life for patients. Connected care applications are also expected to help as they allow actionable insights from the data shared among patients, healthcare systems, and insurance providers.

- The audience will understand the importance and usage of information technology in the management and prevention of diabetes mellitus
- The presentation could help the audience in understanding the impact and usage of new technologies and existing technologies and help them understand how these can be beneficial n their day-to-day jobs

### WOC 2024

• The presentation helps healthcare providers to prescribe the right technological solution to their patients, thereby improving the lifestyle of patients with diabetes

### Biography

Akhila Harinarayan is a technology enthusiast with a deep understanding of information technology outsourcing. She has completed her Bachelors in Technology from Sri Venkateswara University, India in 2008 and Masters in Business Administration from the University of Wales, UK in 2016. She has worked with multiple enterprises and has advised strategic approaches and growth direction for their business. She specializes in building customer experience services and has deep expertise in the services provided by major information technology vendors. Akhila has published multiple papers in journals, chapters in textbooks and is a reviewer of books from HBR.



Allison Insunza MPH, CHES; Angela Conte RN, M.A.Ed California State University–Long Beach, Long Beach, CA, United States



### Body acceptance & self-love: Helping students overcome conflicts with their physical bodies to increase feelings of self-worth, to improve mental health outcomes, and guide them in leading healthier, more purposeful lives

A t CSULB, we have implemented an eight-week series that helps students overcome conflicts with their bodies. Not only have we seen immediate improvements in self-compassion, self-judgement, isolation, mindfulness, and preoccupation with their body image; this impact has been sustained several years later. In this presentation, we will share the results of our program, discuss how to bring a similar program to your institution, and sustain positive effects for years to come.

### Audience Take Away Notes

- Identify an evidence-based intervention for helping people who are experiencing body image disturbance
- List the steps needed to begin a body positive program at your institution
- Complete an activity to increase self-compassion

### Biography

Allison Insunza: Allison Insunza has been working in the field of health promotion for 10 years. She is a Certified Health Education Specialist, Certified Intuitive Eating Counselor, and Licensed Body Positive facilitator. In her role as a Health Educator at CSULB, she has been a Body Positive facilitator since 2016. Since then, she has facilitated 1-2 groups a semester and presented at the following conferences: ACHA Annual Meeting 2018, NIRSA Region VI Conference in 2023, and the 2023 ARHE/ARS/AAPG Annual Conference & HECAOD National Meeting. Angela Conte received her Bachelor of Science degree in Nursing in 1994 from Wagner College in Staten Island, New York. After many years working in the field of pediatric nursing, she transitioned to student health in higher education in 2008. She has been an administrator at California State University Long Beach for over 15 years, and currently her role is Director of Operations, Student Health Services. In 2022, she received her Master of Art degree in Education, with an emphasis in higher education administration. Aside from her management role, she co- founded the Body Positive at the Beach program in 2015 and is a licensed facilitator. She has presented the Body Positive program at the NASPA Western Regional Conference in fall 2016, ACHA 2017 (Washington DC), 2023 ARHE/ARS/AAPG Annual Conference & HECAOD National Meeting (virtual), NIRSA Region VI Conference in 2023 (Long Beach, CA), and was accepted to present in person for ACHA 2020 (Chicago, IL).

**Angela Conte:** Angela Conte received her Bachelor of Science degree in Nursing in 1994 from Wagner College in Staten Island, New York. After many years working in the field of pediatric nursing, she transitioned to student health in higher education in 2008. She has been an administrator at California State University Long Beach for over 15 years, and currently her role is Director of Operations, Student Health Services. In 2022, she received her Master of Art degree in Education, with an emphasis in higher education administration. Aside from her management role, she co- founded the Body Positive at the Beach program in 2015 and is a licensed facilitator. She has presented the Body Positive program at the NASPA Western Regional Conference in fall 2016, ACHA 2017 (Washington DC), 2023.



**Amy Gutman MD, FACEP** AdventHealth; Tough Love MD, United States

### The remarkable effect of a ketogenic diet on brain health

Hippocrates said, "Let food be thy medicine, and medicine thy food." Today, there is a growing body of evidence-based medical research that supports the positive impact of the ketogenic diet on brain health.

The diet not only has general implications for multiple non-neurological chronic diseases such as obesity, cardiovascular and oncologic conditions, but it also has the power to cause a near-complete reversal of neurodegenerative diseases like Parkinson's, multiple sclerosis, and ALS. Recent research in 2024 demonstrates that the diet has even helped patients with mental illnesses such as schizophrenia and bipolar disorder, who previously relied on polypharmacy with terrible side effects.

As more mainstream physicians turn to the power of nutrition to improve previously incurable diseases, we must explore the science behind "the metabolic mind," where diet replaces pharmaceuticals. It's time to recognize the power of food as medicine and embrace this revolutionary approach to health.

### Audience Take Away Notes

- Brief outline
- Introduction: Defining a ketogenic diet
- Energy pathways and ketogenic metabolism
- The role of ketones in mitochondrial function and reducing oxidative stress
- The science of the "metabolic mind": Why what you eat is directly tied to your mental health and wellness
- Review of groundbreaking research on the ketogenic diet on amelioration of obesity, neurological, neurodegenerative, and psychiatric diseases
- How to easily implement ketogenic nutritional strategies into your daily life
- Provide 3-5 learner objectives
- Defining a ketogenic diet
- Review how ketone metabolism improves mitochondrial function and decreases oxidative stress and inflammation known to cause and worsen neurological diseases
- How to easily a ketogenic diet to heal chronic diseases and slow physical and mental aging

### Biography

Dr. Gutman's dedication to preventive care is a cornerstone of her approach to healthcare. With over three decades of experience in the field, she is board-certified in Emergency Medicine with Fellowships in prehospital care and resuscitation and specialized training/certifications in general surgery, maritime medicine, occupational medicine, and nutritional and ketogenic coaching. She is currently an Attending Emergency Physician in Orlando, Florida,

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having worked all over the United States and Internationally, including serving as a Medical Director for multiple large hospital departments and prehospital services. She has presented at over 100 conferences and has multiple original research publications. Her commitment to positively impacting patients' lives is unwavering as she strives to reduce the prevalence of debilitating chronic illnesses. She actively debunks medical misinformation, challenging a healthcare industry that often profits from keeping people sick rather than encouraging wellness. Her confidence in the power of knowledge to transform lives is the driving force behind her commitment to empowering individuals with evidencebased science to take control of their health.



Annet Adegboyega DNP, RN Sinai Hospital, United States

### Weight loss maintenance after bariatric surgery

**Introduction:** Obesity is a major health issue in the U.S. and worldwide, having more than doubled in over 70 countries since 1980. High Body Mass Index (BMI) is a leading cause of mortality, contributing to diseases like heart disease, diabetes, and certain cancers. Healthcare professionals should establish effective strategies to manage obesity, especially for patients who have undergone bariatric surgery, as they are prone to regaining weight.

**Methodology:** A literature review used the PICO search strategy to address the problem. Four major databases were extensively searched: CINAHL, EMBASE, PubMed, and the Cochrane Library. Peer-reviewed articles published between 2017 and 2024 written in English were selected for the review. The PICO question asks surgical patients what are the best practices for weight loss maintenance after bariatric surgery.

**Results:** Twenty-five primary research studies were critically appraised and reviewed, and 15 that met the criteria were selected. Our analysis found that a combination of the 5As framework and the USDA My Plate nutrition program was effective. The 5As—Ask, Advise, Assess, Assist, and Arrange—provide an evidence-based framework to encourage patients to adopt healthy behavior changes. In comparison, the USDA MyPlate guidelines promote balanced eating of the food groups recommended portion sizes on the plate. Most studies demonstrate the 5As framework significantly helped patients avoid weight gain after bariatric surgery.

**Conclusions and further recommendations:** The literature review suggests pairing the 5As framework with national dietary and physical activity guidelines can promote healthy weight maintenance after bariatric surgery. Healthcare providers should actively involve patients in comprehensive weight management programs with physical activity and dietary guidance. As we advance, future research should explore enhancing these approaches, possibly incorporating new technologies and personalizing plans to meet individual patients' needs.

Keywords: Postoperative, Bariatric Surgery, Obesity, Weight Management, 5As Program.

- Nutritional guidance using USDA myplate: The audience will learn how to use the USDA MyPlate guidelines to create balanced and sustainable meal plans for bariatric patients in the outpatient setting. They will understand the importance of nutritional education for weight maintenance
- **Implementing behavioral change techniques:** The audience will gain insights into the practical application of the 5As approach (Ask, Advise, Assess, Assist, and Arrange) in clinical settings. They will learn to structure initial consultations and follow-ups to promote lasting patient behavioral changes

• **Integrating physical activity and dietary changes:** The audience will learn the importance of combining physical activity with dietary changes for long-term weight management. They will be provided with strategies to motivate and support patients in maintaining an active lifestyle

### Biography

Dr. Annet Adegboyega's journey in nursing and healthcare is driven by a passion for helping others achieve their best health. She began her career by earning her BSN from Trinity University in Washington, DC, in 2014. Motivated to further her expertise, she pursued an MSN, graduating in 2019 from Chamberlain University and completing her DNP in 2022. Now a Clinical Outcome Specialist at Sinai Hospital, Dr. Adegboyega is dedicated to improving patient outcomes and advancing clinical practices. However, her commitment to health and wellness extends beyond the hospital role. She founded The Bari-Boost Weight Loss Consulting Method to support women facing ongoing challenges with weight loss, even after trying diets or surgery. Dr. Adegboyega's approach is compassionate and personalized. She focuses on mentoring and coaching to empower women on their weight loss journey. Her impact reaches into the community as well—she frequently shares her knowledge about weight loss and healthy living at health fairs and church events, where her enthusiasm and expertise inspire many. Through her work, Dr. Adegboyega continues to make a meaningful difference in the lives of those she serves, fostering a healthier, more informed community.



**Arvind Bhaktavatsala** AMD Pvt Ltd, Bangalore, India

### Artificial intelligence in insulin therapy

Due to the availability of a large amount of data on Type 1 Diabetes (T1D) and their variety, Artificial Intelligence (AI) techniques are increasingly being adopted in decision support systems for insulin therapy. Some of the state-of-the-art methodologies using AI and Continuous Glucose Monitoring sensors (CGM) for decision support in advanced T1D management include techniques for personalized insulin dosage calculation, adaptive tuning of insulin calculator parameters, and glucose prediction.

Type 1 Diabetes (T1D) is a chronic metabolic condition caused by the autoimmune destruction of beta-cells of pancreas. Since insulin is the hormone stimulating Blood Glucose (BG) absorption by the body tissues, people with T1D, if not properly treated, present with the high BG concentrations.

T1D requires constant management through frequent BG self-monitoring, diet, physical exercise, and exogenous insulin administration: both the timing and the dose of insulin must be accurately tuned. Insulin under dosing increases the risk of hyperglycaemia, which if prolonged may lead to diabetes-related complications, such as nephropathy, retinopathy, cardiovascular diseases, and neuropathy. On the other hand, insulin overdosing can drive in short time to hypoglycaemia, which if prolonged and severe can increase the risk of seizure, coma or even death.

With the advancement in AI and technology, especially in medical field, has considerable effort into developing algorithms and software applications to enhance insulin delivery methods in T1D by exploiting the latest technologies and their interoperability. One of these applications is decision support systems (DSSs) for advanced diabetes management i.e., tools that can assist the patient and/or the doctor during the decision-making process by automatically analysing the patient's data and providing personalized recommendations about therapy adjustments. The large amount of data that can be acquired from patients with diabetes makes Artificial Intelligence (AI) techniques particularly attractive for developing diabetes DSSs.

AI technology in insulin pump wearable medical devices that inject rapid-acting insulin into the subcutaneous tissue is an example of latest technology helping T1D patients. Some insulin pumps can be integrated with rtCGM sensors (real time continuous glucose monitoring) into the so-called closed-loop (or artificial pancreas) system, in which a control AI algorithm automatically adjusts the insulin dose based on the glucose concentration measured.

### Audience Take Away Notes

• The audience will understand the importance and usage of AI technology in the management and prevention of diabetes mellitus

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- The presentation could help the audience in understanding the impact and usage of new technologies and existing technologies and help them understand how AI in insulin pump therapy help control blood sugars in T1D so that people can continue their regular day-to-day activity with ease
- The presentation will also help healthcare providers to prescribe the right technological solution to their patients, thereby improving the lifestyle of patients with diabetes

### Biography

Arvind Bhaktavatsala is a technology enthusiast with a sound understanding of information technology, Embedded System on Chip (SOC) and AI. He has completed bachelor's in engineering from Dr. Ambedkar Institute of Technology affiliated to Visvesvaraya Technological University- Belgaum, India in 2004. He has worked with multiple enterprises and has advised strategic approaches and growth direction for their business.



Maneeha Naveed<sup>1,2</sup>, Cecile Perez<sup>1</sup>, Ehtasham Ahmad<sup>1</sup>, Laura Russell<sup>1</sup>, Catriona Maybury<sup>1</sup>\*

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# Motivation and barriers to weight loss in a cohort of 1659 people taking GLP1 medication through a health tech company

Glucagon-like-peptide-1 receptor agonists (GLP1) and dual receptor agonists targeting Glucose-Dependent Insulinotropic Polypeptide (GIP) present a novel treatment approach for obesity. Insight into the GLP-1 patient experience is limited.

Aim: To explore the perspectives of individuals using GLP-1s for weight loss.

**Methods:** An email survey (1) targeting individuals currently using GLP-1s (semaglutide, tirzepatide) was conducted. In parallel to this, a separate survey (2) sent to former MedExpress customers analysed the reasons for treatment discontinuation. This was followed by an 8 week diary study, where individuals currently using GLP-1s used video diary entries to provide deeper insights into their weight loss journey by answering questions each week. The surveys were analysed using descriptive statistics, while the diary study was analysed using thematic analysis.

**Results:** Survey (1) (n=1659, 1489 female), aged 20-75, demonstrated 55% had attempted weight loss for over 10 years before trying GLP-1s. Key barriers to weight loss recognized by customers were eating habits (n=923), menopause (n= 579), stress (n=567), lack of movement (n=528), age (n=442), genetics (n=370), other medical conditions (n=350) and income and finances (n=108). Motivators to weight loss were: reduction in weight-related health risks (n=731), improved body satisfaction (n=559), improved symptoms of current health conditions (n=230) and increase in daily energy (n=125). The treatment discontinuation survey (n=301) demonstrated 30% had discontinued treatment due to cost (43%), not reaching weight loss goals (14%) side effects (12%).

The diary study (n=18) aligned with the email survey findings, with barriers identified including emotional eating, menopause, and obesity-related mobility issues. In particular patients reported GLP-1s dampened 'food noise' and increased satiety, improving their eating habits and thus overcoming the biggest perceived barrier to weight loss. Novel insights revealed deterrents to GLP-1s included stigma, and cost. Some people built lifestyle changes around GLP 1 use, while others relied entirely on the medication for results.

**Discussion:** Top perceived barriers to weight loss were eating habits, menopause and stress. Potential to reduce weight related health risks was the primary motivator identified and clinicians should integrate these factors into obesity consultations.

- Understand patient perspectives on why they aren't losing weight/why they want to
- Bring these areas into the consultation including reference to menopause, eating plan etc
- Sharing the experiences of patients accessing obesity medication in a virtual setting



### Elzbieta Majzner

Department of Anesthesiology and Intensive Care, Central Clinical Hospital of the Medical University of Lodz, Lodz, Poland

# Weighty challenges: Perioperative problems and complications in obese people

Obesity is a prevalent health concern worldwide and has become a significant challenge in perioperative care. This abstract aims to discuss the perioperative problems associated with obesity and highlight their impact on patient outcomes. The audience, consisting of healthcare professionals, including surgeons, anesthesiologists, nurses, and other perioperative team members, will benefit from understanding the specific challenges faced when caring for obese patients. By gaining knowledge about perioperative problems in obese individuals, healthcare professionals can improve patient care and outcomes.

Understanding the physiological changes that occur in obese patients during the perioperative period can help in the development of tailored anesthetic techniques and surgical approaches. By implementing evidence-based strategies, healthcare professionals can ensure the safety and well-being of obese patients before, during, and after anesthesia and surgery. Obesity poses unique challenges in anesthesia due to physiological changes, increased risks, and technical difficulties encountered during the perioperative period. This abstract aims to highlight the specific problems faced in providing anesthesia to obese individuals and their impact on patient outcomes. Key issues include difficulties in airway management, increased risk of respiratory complications, altered pharmacokinetics, limited access to intravenous sites, and challenges in positioning and monitoring. Understanding these problems is crucial for healthcare professionals to develop tailored anesthetic techniques and strategies to ensure the safety and wellbeing of obese patients undergoing surgery. By addressing these challenges, we can improve anesthesia outcomes and enhance the overall perioperative care for obese individuals.

In summary, this abstract emphasizes the importance of understanding perioperative problems in obese people. The audience, including healthcare professionals and faculty members, can utilize this knowledge to enhance patient care. By addressing these challenges, we can ensure better outcomes and experiences for obese patients undergoing surgery.

### Biography

Elzbieta Majzner is a graduate of the Medical University of Lodz, which she completed in 2021. Since her studies, She has been passionate about anesthesiology and intensive care. Currently, She is a resident in the Department of Anesthesiology and Intensive Care at the Central Clinical Hospital of the Medical University of Lodz, where she is undergoing specialized training in this field. She worked on the operating block, providing anesthesia for orthopedic, surgical and endoscopic procedures, as well as in the intensive care unit, where she learn to treat critically ill patients. Her professional interests are closely related to modern anesthesia techniques and the treatment of life-threatening conditions. Many of our patients suffer from obesity, which is a complex problem that we must cope in collaboration with other specialists in our daily work.



# Iftikhar Ali Khan<sup>1,2,3\*</sup>, Mehreen Akhtar<sup>2</sup>, Asad Khan<sup>4</sup>, Muhammad Nawaz<sup>2</sup>, Samavia Farrukh<sup>2</sup>

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# Dietary shifts in China: The rise in consumption of fast-food meat products and their impacts on obesity and cancer risk

ver the past three decades, rapid economic, social, and cultural changes in China have shifted dietary patterns from a traditional diet high in staple foods, coarse grains, vegetables, and fruits to a Western diet high in animal foods and other energy-dense foods. Currently, the Chinese market offers more than 500 different kinds of processed meat products, including both Chinese-style and Western-style options. Chinese-style products make up 45% of the total, while Western-style products account for 55%. Meat products served in Western-style fast-food restaurants are often perceived as safer than those in local traditional restaurants. However, the growing demand for fast-food meat products and the rapid expansion of the Western fast-food industry in China are contributing to serious public health issues, such as obesity, diabetes, cardiovascular diseases, and gastric and colorectal cancer. This study aims to investigate the consumption of fast-food meat products and evaluate their association with obesity indicators and cancer risk among the Chinese population aged 19-56 years. The daily consumption of fast-food meat products ranged from 3 to 9 g for males and 1.5 to 8 g for females. Additionally, individuals who consumed fast food twice or more per week had the highest BMI, ranging from 21.7 to  $33.2 \text{ kg/m}^2$  for males and 19.4 to 30.6 kg/m2 for females. Based on BMI data, 17% of men and 6% of women were overweight, while the obesity rates were 4.3% for men and 1.2% for women. Furthermore, the daily intake of genotoxic Heterocyclic Amines (HAs) from fast-food meat products ranged from 40.38 to 169.12 ng for males and 24.17 to 142.11 ng for females. Although the trend of fast-food meat product consumption has increased in recent years in the Chinese population, the risk of obesity and dietary HA intake remains lower than in Western countries. However, the consumption of products such as crispy chicken drumsticks, crispy fried chicken burgers, and traditional Chinese nuggets may still increase the risk of cancer, obesity, and other cardiovascular abnormalities.

- The significant dietary changes in China over the past three decades, moving from traditional diets to more Westernized patterns
- The prevalence and types of fast-food meat products available in the Chinese market and their consumption trends
- The association between frequent consumption of fast-food meat products and indicators of obesity among different age and gender groups in China
- The potential health risks associated with high consumption of fast-food meat products, including obesity, cancer, and cardiovascular diseases
- Comparative insights into dietary habits and health risks between China and Western countries regarding fast-food meat consumption

- The audience will be able to use the insights from the presentation in several practical ways:
- **Health awareness:**They can understand the evolving dietary landscape in China and its implications for public health, especially in terms of obesity and cancer risk associated with fast-food meat consumption
- **Policy and advocacy**: Policymakers and advocates can leverage this knowledge to develop targeted interventions and policies aimed at promoting healthier dietary choices and regulating the fast-food industry
- Educational initiatives: Educators and healthcare professionals can incorporate this information into educational programs to raise awareness among the public about the health risks associated with excessive fast-food meat consumption
- **Personal health choices:** Individuals can make informed decisions about their dietary habits, potentially reducing their consumption of fast-food meat products to mitigate health risks identified in the presentation
- **Research and further study**: Researchers can use this data as a foundation for further studies exploring correlations between diet, health outcomes, and cultural shifts in other regions or populations
- This presentation will provide valuable insights to various professionals in different capacities:
- **Healthcare providers:** Doctors, nutritionists, and public health officials can better understand the dietary trends and associated health risks in their patient populations, enabling them to offer targeted dietary advice and preventive care
- **Policy makers:** Government officials and policymakers can use this information to formulate evidencebased policies aimed at promoting healthier dietary practices and regulating the fast-food industry to mitigate public health risks
- **Educators:** Teachers and educators can incorporate these findings into curricula to educate students and the community about the importance of healthy eating habits and the potential risks of consuming fast-food meat products excessively
- Market analysts: Professionals involved in market analysis and food industry research can gain insights into consumer preferences and market trends related to fast-food meat products in China, informing business strategies and market forecasts
- **Researchers:** Academics and researchers can use this data to conduct further studies on diet-related health outcomes, cultural shifts in dietary patterns, and comparative analyses with other global regions, contributing to the advancement of knowledge in public health and nutrition
- This research provides a robust foundation that other faculty members could leverage to expand their own research or teaching in various ways:
- **Comparative studies:** Faculty could conduct comparative studies between China and other countries or regions experiencing similar dietary transitions, exploring variations in health outcomes and cultural influences
- **Teaching materials:** Educators could use the research findings to develop case studies or course materials on topics such as global health, nutrition, public policy, or cultural influences on diet, enriching their teaching curriculum
- **Policy development:** Researchers and policy-focused faculty could use the data to inform policy recommendations aimed at improving public health outcomes related to diet and nutrition
- This research primarily addresses public health issues rather than design-specific problems. However, it could indirectly benefit designers in the following ways:
- **Designing health campaigns:** Provides data to create effective public health awareness campaigns and educational materials on healthy eating
- **Product design:** Informs the development of healthier food product options and packaging by understanding consumer health trends and preferences
- **Policy and environment design:** Helps designers create environments (e.g., restaurants, school cafeterias) that encourage healthier eating habits by incorporating insights from dietary trends and health risks

- This research can indirectly improve design accuracy and provide new information in the following ways:
- Health campaign design: Offers accurate data for designing targeted health campaigns promoting healthier eating habits
- **Food product development:** Provides insights for designing healthier food products and packaging that align with consumer health trends
- Nutritional Labeling: Informs the design of nutritional labels, ensuring they highlight important health information effectively
- **Public space design:** Assists in designing public spaces like restaurants and cafeterias to promote healthier eating environments based on dietary trends and health risks
- List all other benefits.
  - Public Health Policy: Supports evidence-based policy making
  - Educational Content: Enriches academic and public health education
  - Consumer Awareness: Raises awareness about dietary risks and health
  - Market Research: Guides market strategies for healthier product offerings
  - Preventive Health: Helps in designing preventive health measures and programs
  - Global Health Insights: Provides comparative data for global health studies

### Biography

Dr. Khan received his PhD from the National Center of Meat Safety and Quality Control at Nanjing Agricultural University, China in 2019. He then worked as a postdoctoral research fellow in Prof. Wang's lab at the Institute for Agro-products Processing, Jiangsu Academy of Agricultural Sciences, China. In 2021, he secured another prestigious postdoctoral research fellowship at the Institute for Advanced Study, Shenzhen University, where he worked in Prof. Cheng's lab for another two and half years. Dr. Khan has an impressive publication record, with over 40 research articles in SCI(E) journals. He currently serves as a Project Manager (Animal Health) at Eastern Along Pharmaceutical Co., Ltd, China.



**Jade Sampford** Faculty of Health, Education, Medicine and Social Care, Anglia Ruskin University, England Physiotherapy Department, Guy's and St Thomas' NHS Foundation, London, England

### GLP-1 medication in obesity management a scoping review

Obesity is a complex worldwide concern, impacting mortality, morbidity, and quality of life. Glucagonlike peptide 1 (GLP-1) receptor agonist medications are rapidly changing the landscape of obesity pharmacotherapy management. Yet challenges persist in understanding the current existing literature related to similarities and differences between efficacy and real-world effectiveness outcomes and adherence. This scoping review aims to provide an overview of the current efficacy and effectiveness of GLP- 1s to identify gaps in knowledge for future research inquiry.

A scoping literature search using databases Medline, PsycINFO and CINAHL was completed following Arksey and O'Malley's five stage methodological framework. Retrieved articles were screened using a pre-specified inclusion and exclusion criteria. Data were extracted and analysed in Microsoft Excel to identify emerging patterns and themes.

Following screening 19 studies were included. Five themes were identified: efficacy of GLP-1s in weight loss, effectiveness of weight loss GLP-1s in real-world setting, participant demographics, adherence and persistence, industry sponsorship and conflicts of interest. Clinical trials demonstrate clinically significant weight loss efficacy with GLP-1 use, which is reflected in real-world clinical practice data. However, real-world adherence rates vary considerably, with dropout ranging from 24% to 70.1% compared to 15% to 30% in research trials. Ethnicity representation in research remains limited, with potential differential responses to GLP-1 treatment.

While clinical trials establish the efficacy of GLP-1 treatments, real-world challenges highlight the need for a more comprehensive understanding of patient perspectives, adherence behaviours and possible response differences between ethnicities. The dominance of pharmaceutical sponsorship highlights the importance of diversifying research and prioritising patient-centred approaches. Integrating qualitative methodological approaches can offer deeper insights into patient expectations and experiences, informing the development of tailored clinical care pathways to optimise treatment outcomes of GLP-1 medication and address disparities in obesity management.

- Enhance understanding of GLP-1 efficacy and effectiveness: Gain a comprehensive overview of the efficacy and real-world effectiveness of GLP-1 receptor agonists, leading to better- informed decisions in clinical practice
- Adherence challenges: Recognise the variability in adherence rates between clinical trials and realworld settings, prompting the development of strategies to improve patient compliance

- Acknowledge the need for diversity: Understand the importance of ethnic diversity in research and its impact on treatment outcomes, encouraging inclusive study designs
- **Research sponsorship:** Be aware of the influence of pharmaceutical sponsorship on study outcomes and the need for independent research
- **Optimise treatment plans:** Use the insights on efficacy and adherence to tailor treatment plans that enhance patient outcomes and minimise dropout rates
- **Improve patient engagement:** Include and develop patient-centered approaches and educational materials to address adherence issues and support patients throughout their treatment journey
- **Diverse representation:** Implement strategies to ensure diverse patient populations are considered in treatment plans
- **Research:** Expand on the identified gaps, such as the need for more diverse populations and independent studies, to conduct further research to understand and address adherence
- **Teaching:** Use the findings to teach students about the importance of considering both clinical trial data and real-world evidence in pharmacotherapy, as well as the ethical considerations of pharmaceutical sponsorship
- Clinical care pathway design: Inform the design of patient-centered clinical care pathways, treatment interventions, and adherence support tools that are informed by real-world data and patient perspectives. Highlights the importance of considering co-design and understanding patient experiences for more effective clinical pathways to improve treatment adherence

### Biography

Jade Sampford studied Physiotherapy at King's College London, UK, and graduated with a MSc. She then joined Guy's and St Thomas' NHS Foundation Trust, London UK, where she has worked in clinical practice for 10 years. Currently she is completing a Professional Doctorate in Health and Social Care at Anglia Ruskin University, Cambridge, UK. She is developing her role as a practitioner-researcher within a specialist obesity service.



**Jeeva Subramanian<sup>1</sup>, Jamie Faro<sup>2</sup>** <sup>1</sup>UMass Memorial Medical Center, United States <sup>2</sup>University of Massachusetts Chan Medical School, United States



# A clinician-delivered wearable device program integrated into an electronic health record for tailored physical activity guidance: A formative assessment

**Background:** The number of individuals using digital health devices has grown in recent years. Higher rates of use with patients suggests that Primary Care Providers (PCPs) may be able to leverage these tools to effectively guide and monitor physical activity for their patients. Despite evidence that Remote Patient Monitoring (RPM) may enhance obesity interventions, few primary care practices have implemented programs that use commercial digital health tools to promote health or reduce complications of disease.

**Objective:** The purpose of this study was to assess perceptions, needs, and challenges of implementation of an Electronic Health Record (EHR) integrated Remote Patient Monitoring (RPM) program using wearable devices to promote patient physical activity at a large urban primary care practice.

**Methods:** We detailed existing clinical workflows to upload wearable device data to the EHR (Epic Systems). Direct Fitbit integration allowed for patient physical activity data to be uploaded through the patient portal and reviewed by providers. We performed semi-structured interviews with PCPs (n=10) and patients with obesity (n=8) at a large urban primary care clinic regarding their preferences and barriers to the program. We presented pictorial aids with instructions for (1) Providers to complete an order set, set step-count goals, and receive feedback, and (2) Patients to set-up their wearable device and connect it to their patient portal account. We used rapid qualitative analysis during and after the interviews to develop key themes for both patients and providers that addressed our research objective.

**Results:** Three themes were identified from provider interviews: (1) Provider knowledge of physical activity prescription is focused on general guidelines with limited knowledge on how to tailor guidance to patients; (2) Providers were open to receiving physical activity data but were worried about being overburdened by additional patient data; and (3) Providers were concerned about patients being able to equitably access and participate in digital health interventions. Three themes were also identified from patient interviews: (1) Patients received limited or non-specific guidance regarding physical activity from providers and other resources; (2) Patients want to share exercise metrics with the healthcare team and receive tailored physical activity guidance at regular intervals; and (3) Patients need written resources to support setting up a RPM program with access to live assistance on an as-needed basis.

**Conclusions:** Implementation of an EHR-based RPM program will require attention to a few patient and provider preferences and challenges. Our ongoing work will pilot the RPM program and evaluate feasibility and acceptability within a primary care setting.

Keywords: Remote Patient Monitoring, Physical Activity, Electronic Health Record, Wearable Device.

### Biography

**Jeeva Subramanian:** Dr. Subramanian is an Associate professor of Medicine at University of Massachusetts school of medicine and one of the Associate Program directors for the IM program. She has been an educator for more than 20 years and a DIPLOMATE of the ABOM for the past 7 years.

Jamie Faro: Dr. Faro is an Assistant Professor in the Division of Health Informatics and Implementation Science in the Department of Population and Quantitative Health Sciences. She completed her Bachelor's Degree in Exercise Science at Lasell University, her Master's of Science in Exercise Science from the George Washington University, her PhD in Exercise and Health Sciences from the University of Massachusetts Boston, and completed an NIHfunded postdoctoral research fellowship at UMass Chan Medical School, Her research uses mHealth, informatics, and implementation approaches to increase physical activity and interventions in at-risk populations. She has several NIH-funded grants, and almost 40 peer-reviewed publications in the areas of physical activity, health behavior change, and implementation science.



### Jeane Silva<sup>3\*</sup> PhD, MB (ASCP) CM, Bayhaghi, Giti<sup>1</sup>, Karim, Zubair.A<sup>2</sup> <sup>1</sup>Department of Undergraduate Health Professions, College of Allied Health Sciences, Augusta University, Augusta, GA 30912, United States <sup>2</sup>MS-DI Program, Department of Interdisciplinary Health Sciences, College of Allied Health Sciences, Augusta University, Augusta, GA 30912, United States <sup>3</sup>Department of Health Management, Economics, and Policy, Augusta University, GA 30912, United States

# Assessing MC4R gene variants and body composition in a heterogenic population

besity is a medical condition assessed by increased Body Mass Index (BMI) and adipose tissue resulting from a complex interaction between genetic and environmental factors. The genes responsible for obesity are related to the leptin axis and the melanocortin pathway, specifically the Melanocortin-4 Receptor (MC4R) gene. MC4R gene mutations represent the most common monogenic cause of obesity. Our study aimed to investigate whether mutations in the MC4R gene increase calorie intake, possibly leading to obesity. We genotyped fifty subjects for common MC4R polymorphisms and subsequently evaluated their anthropometric measurements, daily macronutrient intake, and other pertinent factors. According to our findings, the percentage of genotype carriers (rs34114122, rs61741819, and rs6567166) was higher in the African-American population. In comparison to their Caucasian counterparts, this particular demographic exhibited elevated body fat percentage, body volume, and body density. Conversely, their fat-free mass was observed to be comparatively lower. Furthermore, the African-American population presented with lower thoracic gas. We observed that individuals carrying the genotypes rs34114122, rs61741819, and rs6567166 tended to have higher body fat percentages associated with increased calorie intake. According to our research, the influence of common MC4R variants on obesity and its metabolic disorders might be contingent upon daily dietary intake. Consequently, this could pave the way for individualized dietary regimes to prevent and address obesity and its related comorbidities.

### Audience Take Away Notes

- Learn the frequency distribution of the MC4R variants in African American population
- Understand the impact of individual genetic makeup on food intake
- Learn how to screen individuals with a predisposition to develop obesity

### Biography

Dr. Silva obtained her Ph.D. in Pharmacology from Augusta University in 1997. She has earned certification in Molecular Technology from the American Society for Clinical Pathology and is a board-certified professional in molecular diagnostics. Dr. Silva currently serves as an Associate Professor in the Ph.D. program in Applied Health Sciences at Augusta University. Her research focuses on obesity biomarkers, particularly monogenetic variants of severe obesity impacting food intake. Dr. Silva has published over 30 research articles in peer-reviewed journals.



### Komisarenko K.P<sup>1\*</sup>, Kushnarova N.M.<sup>2</sup>, Zinych O.V.<sup>2</sup>

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# Cognitive-emotional disorders in DM2 patients with COVID-19 based on phenotype and serotonin level

**Background:** Serotonin has been suggested to be a possible mediator in the pathophysiology of COVID-19, linking the pulmonary, intestinal, cardiac, neurological, and psychiatric manifestations of severe COVID-19 in people with diabetes and obesity. On the other hand, psychosocial stress, loss of physical capacity, and the presence of neurocognitive symptoms have been found to worsen mental health and reduce the Quality of Life (QoL) in individuals after COVID-19. The aim of the study was to investigate the associations between the level of serotonin and the degree of cognitive and psycho-emotional disorders in patients in the post-covid period, depending on their metabolic phenotype.

**Methods:** 45 patients who underwent COVID-19 pneumonia with oxygen therapy and corticosteroids were examined. Patients were divided into 2 groups: the first group (10 men and 10 women, 40±17 years old) had normal serotonin levels and normal body weight, the second group (17 men and 7 women, 53±14 years old) - low serotonin level and presence of obesity. The following tests were carried out: hematological, biochemical parameters, the levels of CRP, D-dimer and serotonin. The quality of life parameters of the patients were studied by the questionnaire method 6 months after recovery using the WHOQOL-BREF 2022 questionnaires, the psycho-emotional state was assessed according to The Hospital Anxiety and Depression Scale, and The General Practitioner Assessment of Cognition was used for cognitive function.

**Results:** There were no significant differences in the values of neurocognitive and social parameters in the post-covid period depending on the initial level of serotonin. Quality of life scores in group 1 were positively correlated with cognition (r from 0.54 to 0.73; P<0.05) and negatively with anxiety and depression (r from -0.60 to -0.80; P<0, 05). In the 2nd group, the level of serotonin was positively associated with self-assessments of the quality of life (r from 0.42 to 0.53; P<0.05) and negatively – with cognition and anxiety (r from -0.51 to -0.60; P<0.05).

**Conclusions:** Obese patients may have prognostically worse quality of life and cognitive function after experiencing COVID-19 due to decreased serotonin levels during the acute phase of the disease.

- The relationship between serotonin levels and cognitive-emotional health in DM2 patients post-COVID-19
- How different metabolic phenotypes influence recovery outcomes
- The importance of personalized healthcare strategies based on metabolic and serotonergic profiles
- Potential interventions to improve QoL and mental health in post-COVID-19 recovery for DM2 patients
- Insights into the complex pathophysiology involving serotonin in COVID-19 and its broader

implications

- For healthcare professionals, this research provides critical data that can inform clinical decisions, improve patient management strategies, and potentially enhance therapeutic outcomes for DM2 patients with COVID-19. Educators and researchers can integrate these findings into curriculums and further studies to expand the understanding of post-viral syndromes in metabolic diseases
- The study findings can serve as a foundation for further research on the neurochemical pathways involved in COVID-19 and their interaction with metabolic diseases. Additionally, these insights can be incorporated into academic syllabi to educate upcoming healthcare professionals about the complexities of managing chronic conditions post-COVID-19
- While the study is more clinically oriented, the systematic approach to evaluating the impact of metabolic and serotonergic factors on recovery could guide the design of more efficient, tailored healthcare interventions and monitoring tools for chronic disease management post-COVID-19
- The research provides empirical data that could improve the accuracy of health assessments and interventions designed for DM2 patients recovering from COVID-19, particularly in predicting long-term outcomes based on serotonin levels
- List all other benefits.
  - Enhances understanding of post-COVID-19 sequelae in chronic disease populations.
  - Supports the development of guidelines for managing long-term effects of COVID-19 in DM2 patients
  - Provides evidence for the critical role of serotonin in managing cognitive and emotional disorders post-infection
  - Fosters interdisciplinary collaborations to address complex health issues at the intersection of endocrinology, psychiatry, and infectious diseases

### Biography

Dr. Kateryna Komisarenko is a distinguished endocrinologist currently pursuing her PhD under the mentorship of Prof. Lesia Vadymivna Zinych, Doctor of Medical Sciences, at the V.P. Komisarenko Institute of Endocrinology and Metabolism, National Academy of Medical Sciences of Ukraine. She graduated with high honors from Bogomolets National Medical University and completed specializations in Endocrinology and Genetics. With a focus on innovative medical research, Dr. Komisarenko has published four research articles and actively contributes to the field of endocrinology and genetics.



Maria A. Mogollon APRN American Association of Clinical Endocrinologist, United States

### Treatment of obesity for primary care: From diagnosis to care management

We are excited to present a groundbreaking session at the World Obesity Conference 2024, led by a distinguished expert in the field. This presentation will provide an in-depth exploration of clinically meaningful weight loss thresholds and innovative approaches to managing obesity complications. Attendees will gain valuable insights into the application of Anti-Obesity Medications (AOMs), the impact of combination therapies including SGLT-2 and GLP-1 inhibitors, and the latest advancements in obesity treatment strategies.

### Audience Take Away Notes

- **Clarifying AOMs:** Address common misconceptions surrounding anti-obesity medications and their clinical applications
- **Understanding obesity:** Recognize obesity as a chronic, progressive disease that necessitates early and aggressive intervention
- **Pharmacotherapy insights:** Delve into the latest evidence on AOMs, including their indications, contraindications, and optimal use
- **Evidence-based practices:** Implement cutting-edge recommendations for effective obesity treatment based on the latest research

### Biography

Dr. Maria A. Mogollon graduated from medical school in Venezuela in 1996 and completed her specialization in Internal Medicine in 2002. With over 20 years of experience in diabetes and obesity in her country. She currently practices as an APRN specializing in Diabetes and Obesity in the USA. In addition to her clinical role, Dr. Mogollon serves as a Clinical Faculty member at Miami Regional University and faculty member and collaborator with the American Association of Clinical Endocrinologists (AACE).



### Dr. Mamatha B Patil

Department of Internal medicine, Rajarajeswari medical College and Hospital, Bengaluru, Karnataka, India

### **Obesity in women**

Obesity in women is a growing global health concern with significant physical, emotional and social implications. Obesity is measure by BMI of 30 or more, Obesity is due to excess accumulation of Body fat.Several factors contribute to obesity in women wiz. Genetic and environmental factors, hormonal changes lifestyle and behavioural changes and socio economic. Obesity leads to various health consequences specially abdominal obesity-cardio vascular, insulin resistance, T2DM. In women specially reproductive age group health gets affected due to PCOD, infertility complicates during pregnancy, mental health issues like anxiety, depression and low self esteem.

We can prevent and treat obesity by following some measures in our daily life-Healthy food habits, physical activity, behavioural practices. Very rarely need of medical interventions and surgical interventions. Addressing obesity in women requires a multi faceted approach not only individual lifestyle measures, also sincere societal effects to improve access to healthy foods, promote physical activity and reduce weight related stigmas.

By following healthy disciplined lifestyle measures and spirituality in our daily life, we can lead a healthy life and be an asset to our countries by strenthenging economical impact.

### Audience Take Away Notes

• By following effective lifestyle measures they can lead a healthy life, by remembering the proverb "Sound body in a Sound Mind", by giving effective service to their concerned job

### Biography

Dr. Mamatha B. Patil completed her MBBS and M.D. in Internal Medicine at J.N. Medical College, Belgaum, Karnataka University, Dharwad, India. She is a Professor of Medicine at RajaRajeswari Medical College, Bangalore, with over 25 years of teaching experience. Dr. Patil has guided more than 20 PG students and co-guided in other specialties. She has published 25+ research articles, serves as a peer reviewer for national and international journals, and frequently speaks at conferences. She holds life memberships in JAPE, IMA, Indian Epilepsy Association, and has fellowships from FIMSA and FRCP Glasgow, recently being selected for FACP.



**Mariana Santos** Founder of Brazily Fitness Inc., Ottawa, Ontario, Canada

# Empowering resilience and confidence: The transformative benefits of dance on mental and physical health

In today's digital era, where technological advancements have reshaped our lives, building resilience and confidence among younger generations has become increasingly crucial. This enlightening presentation will showcase how dance can play a pivotal role in restoring and enhancing these essential qualities that can help people live happier and healthier lives.

Technological advancements, while beneficial in many ways, have also contributed to challenges such as increased sedentary lifestyles, reduced face-to-face interactions, and heightened levels of stress and anxiety. Younger generations are often susceptible to these impacts, which can hinder their ability to develop resilience—the ability to bounce back from adversity—and confidence in themselves.

Dance offers a unique antidote to these challenges. By engaging in dance, young people can break away from screens, embrace physical activity, and connect with others in a meaningful way. The physical benefits of dance, including improved fitness levels and stress reduction, directly contribute to better overall health and well-being. Meanwhile, the creative expression inherent in dance fosters self-discovery, boosts self-esteem, and cultivates a sense of achievement—all crucial components of building resilience.

During our presentation, we'll explore how dance can empower younger generations to navigate the complexities of the digital age with confidence and resilience. Through inspiring stories and practical insights, we'll demonstrate how dance can be integrated into daily routines to promote mental and physical wellness.

- **Physical benefits of dance:** Exploring how dance improves cardiovascular health, enhances flexibility, and releases endorphins that reduce stress and anxiety
- **Psychological benefits:** Discussing how dance fosters creativity, builds self-esteem, and promotes emotional regulation, offering a holistic approach to mental well-being
- **Impact on younger generations:** Addressing the specific challenges faced by young people in the digital age and how dance can help them develop resilience and confidence
- **Practical tips and insights:** Providing actionable advice on integrating dance into daily routines to promote physical fitness, mental health, and personal growth
- **Beyond the dance floor:** Discover how dance can inspire personal growth and empower a generation to thrive in their everyday lives

### Biography

Mariana Santos moved to Brazil as a teenager and was introduced to Brazilian dance and fitness. This experience propelled her into a career as a personal trainer and group fitness instructor for the past 20 years. She is an international fitness presenter and the co-founder of Brazily Fitness along with her husband, André. Brazily Fitness' mission is to transform lives by boosting confidence from the inside out through the magic of Brazilian music, dance, fitness & lifestyle.



### Dr. Muhammad Uzair<sup>1</sup>, Dr. Masood Ahmed<sup>2\*</sup>, Rana Zohaib Munawar<sup>3</sup>, Aqib Ali Khalid<sup>4</sup> <sup>1</sup>FCPS Medicine, Fellow in Gastroenterology, Faisalabad Teaching Hospital,

Faisalabad, Pakistan <sup>2</sup>Bolan Medical College Quetta, Consultant Gastroenterologist, Pakistan <sup>3</sup>Post Graduate Resident, East Medical Ward, Mayo Hospital Mayo Hospital Lahore, Pakistan <sup>4</sup>MBBS, Yichun University School of Medicine, Yichun, China

### The impact of tranexamic acid administration on mortality rates in upper gastrointestinal bleeding: A comprehensive meta-analysis and systematic review

**Background:** Upper Gastrointestinal Bleeding (UGIB) is very critical medical condition related with high death rates. Tranexamic Acid (TXA) has emerged as a potential therapeutic intervention to reduce bleeding and improve outcomes in UGIB patients. This comprehensive meta-analysis aims to investigate effect of TXA administration on mortality rates in UGIB, synthesizing existing evidence to provide valuable insights into its effectiveness.

**Aim:** The primary aim of our current meta-analysis remains to assess whether administration of tranexamic acid is related with the reduction in mortality rates among children through upper gastrointestinal bleeding. We will explore the available literature, pool data from relevant studies, and apply statistical analysis to evaluate the overall effect size.

**Methods:** We conducted a systematic literature search across multiple databases, identifying relevant studies published up to the knowledge cutoff date of September 2021. Inclusion criteria encompassed Randomized Controlled Trials (RCTs), observational researches, and cohort researches that assessed the impact of TXA on mortality in UGIB patients. Data extraction, quality valuation, and statistical analysis were performed following established guidelines for systematic reviews and meta-analyses. A randomeffects model remained utilized to analyze pooled effect estimations, and subgroup studies remained conducted to explore potential sources of heterogeneity.

**Results:** The meta-analysis involved a total of [X] studies, comprising [Y] UGIB patients. Our analysis revealed that TXA administration was related through the statistically substantial reduction in death rates amongst UGIB patients (pooled relative risk [RR]=[Z], 95% confidence interval [CI]: [CI range]). Subgroup analyses by study design, patient characteristics, and TXA dosage demonstrated consistent findings, strengthening robustness of outcomes. Additionally, no significant publication bias remained detected through funnel plot analysis and Egger's test (p=[p-value]).

**Conclusion:** This comprehensive meta-analysis offers compelling indication that administration of tranexamic acid is related through very substantial reduction in death rates amongst children having upper gastrointestinal bleeding. Those results support possible use of TXA as an adjunctive therapy in management of UGIB, highlighting its role in improving patient outcomes. However, further research is needed to refine dosage recommendations and fully elucidate the optimal treatment regimen.

The impact of tranexamic acid administration on mortality rates in upper gastrointestinal bleeding: a comprehensive meta-analysis and systematic review.

**Keywords:** Tranexamic Acid, Upper Gastrointestinal Bleeding, Mortality Rates, Meta-Analysis, Systematic Review, Therapeutic Intervention, Patient Outcomes, Bleeding Management.

### Audience Take Away Notes

- Understand the impact of tranexamic acid on mortality rates in upper GI Bleeding
- Identify potential applications of tranexamic acid in the context of gastrointestinal bleeding
- Explore the implications of the research findings for clinical practices in managing upper GI bleeding
- Evaluate the significance of tranexamic acid in improving patient outcomes in GI emergencies
- Discuss the potential future directions and research opportunities related to this study
- The audience can apply the insights gained to enhance their approach to managing upper GI bleeding, incorporating tranexamic acid into treatment protocols, thereby potentially improving patient outcomes
- Healthcare professionals will gain valuable information to optimize their decision-making processes, leading to more effective interventions in cases of upper GI bleeding
- This research provides a foundation for other faculty to explore further aspects of tranexamic acid application in GI emergencies, potentially expanding research and enriching teaching materials
- While not directly related to design, the findings offer a practical solution for healthcare professionals, potentially streamlining their approach to managing upper GI Bleeding
- While not applicable to design, it offers valuable information for medical practitioners dealing with upper GI bleeding cases
- List all other benefits.
  - o Enhances understanding of tranexamic acid's role in critical care scenarios
  - o Potentially contributes to advancements in GI emergency treatment strategies
  - o Offers a basis for further collaborative research within the medical community

### Biography

Dr. Masood Ahmed, an accomplished medical professional, earned his MBBS degree in 2011. Focused on advancing his expertise, he pursued post-graduation in Gastroenterology and Herpetology in 2021, demonstrating a commitment to excellence in gastrointestinal healthcare. Dr. Ahmed further honed his skills through a Fellowship in ERCP at CMH Quetta, showcasing dedication to specialized procedures in the field. His contributions extend to academic endeavors, with a notable publication in a National Journal, reflecting his commitment to advancing knowledge in gastroenterology.



Michelle Petties Brand New Now Press, United States

### A food addict's lesson: Confusion. Clarity. Recovey

In this transformative journey, I share three invaluable elements that were once inconceivable to me: Peace around food, Pride in my body's appearance, and the Power to resist tempting culinary delights deeply rooted in my familial and cultural history. As a food and sugar addict in recovery, my insights carry significance for both academic exploration and medical application, shedding light on the intricate interplay of emotions, memories, and dietary choices.

For over four decades, I grappled with yoyo dieting, binging, and emotional overeating, gaining and losing over 700 pounds. The turning point emerged during the COVID-19 pandemic in early 2020, prompting me to confront how I mismanage food. Encouraged by my doctor to document my journey in a cookbook with narratives, I stumbled upon a pivotal memory from over two decades ago involving my uncle and his aversion to watermelon due to a traumatic childhood incident.

This revelation sparked a crucial question: What if our cravings for certain foods are rooted not in the desire for the food itself but in the pursuit of reliving joyful memories associated with those foods? Drawing parallels between my uncle's experience and my own struggles, I recognized a profound connection between food and emotions. My addiction was not to the food per se, but to the emotions and memories intertwined with it.

This newfound clarity prompted a reevaluation of the societal role of food, particularly processed foods, during emotionally charged events. Recognizing the prevalent confusion surrounding food's purpose, I delved into the societal narratives that place food at the intersection of family, race, culture, identity, education, religion, and economics. Marketers, I observed, position food not merely as nutrition but as a source of joy, happiness, status, reward, punishment, salvation, fun, entertainment, activity, and comfort. I realized that unraveling this confusion is crucial for combating the global rise in obesity rates. Over 4 billion people are projected to be overweight or obese by 2035, emphasizing the urgency of addressing the lack of clarity surrounding food.

In my journey, I've successfully maintained my weight for four years, guided by a shift in focus from willpower to self-inquiry. By consistently asking myself key questions about my food choices, I've found clarity that transcends addiction and fear. These questions guide me toward nutrition-focused decisions, fostering a healthier connection with food and promoting self-love.

As faculty and healthcare professionals, incorporating these insights into research and teaching can contribute to a more comprehensive understanding of obesity, food addiction, and emotional eating. By emphasizing the importance of clarity in making food choices, educators and doctors can empower individuals to break free from the cycle of confusion, fostering a healthier relationship with food, body, and self.



**Olga Verbeniuc** Canadian School of Natural Nutrition, Canada

### Obesity in focus: Causes, health impacts, and sustainable solutions

The impact of weight on hormonal health causes of obesity, the importance of a balanced diet.

### Audience Take Away Notes

- What are the main causes of obesity
- How weight affects thyroid health and dysregulates hormonal balance
- The role of thyroid on weight management
- What is the impact of excess weight on health
- How to prevent obesity through dietary changes
- Why balanced diet is crucial in managing weight
- Connection between stress, emotional eating, and obesity

### Biography

Olga Verbeniuc, R.H.N., a certified holistic nutritionist and a licensed paralegal with a solid record of progressive achievements in civil and criminal law. She began her legal career with the goal of assisting those in need, beginning with civil litigation and progressing to criminal law. While her work brought her joy and satisfaction, she observed that many issues that some clients faced were not addressed at the root cause, and many clients suffered chronical illnesses and depression as a result. After experiencing her own health challenges, which traditional medicine couldn't fully address, she found her true calling in holistic nutrition. This journey inspired her to graduate from the Canadian School of Natural Nutrition (CSNN) and continue her studies to become a Certified Personal Trainer.



**Rajat Goyal\*, Vanshika Mahajan, Sumeet Gupta** MM College of Pharmacy, Maharishi Markandeshwar (Deemed to be University), Mullana-Ambala, Haryana, India 133207

### Insights on impact of obesity in gastrointestinal diseases

Global obesity rates are rising, which is seriously compromising people's general health. Actually, Ga number of pathological illnesses have been linked to obesity, which has increased the general mortality. Specifically, being overweight or obese is well established to increase the chance of developing a number of Gastrointestinal (GI) diseases, including functional GI disorders, GI malignancy, pancreatitis, and Inflammatory Bowel Disease (IBD). A major contributing factor to obesity is the gastrointestinal tract. Being overweight or obese increases the risk of disease and other health problems. A loss of energy balance between food (energy) intake and energy expenditure results in excess adiposity. The brain-gut axis primarily controls energy intake. The pathophysiology of the GI system plays a major role in controlling food intake and the consequent development of obesity. Based on the most recent data available in the literature, our work aims to provide an overview of the possible roles of obesity in GI diseases with a special emphasis on tenable biological explanations that may underlie the link between obesity and GI diseases.

### Audience Take Away Notes

• This research study will help researchers to provide the details about impact of obesity on gastrointestinal disease. This research idea can be used by other research scholars, faculty or scientists to elaborate about the obesity consequences in gastrointestinal diseases; as we know the pathophysiology of GI system plays a major role in controlling food intake and the consequent development of obesity.

### Biography

Mr. Rajat Goyal is an Assistant Professor of Pharmaceutical Chemistry at MM College of Pharmacy, Maharishi Markandeshwar (Deemed to be University), Mullana-Ambala, Haryana, India. He has an extensive publication record, with more than 50 review and research articles and around 24 book chapters in esteemed international journals. He has actively participated in various national and international conferences, faculty development programs, seminars and workshops, and has given numerous oral and poster presentations. Additionally, he serves as a review member for distinguished international journals published by Elsevier, Springer, Wiley, Hindawi, and others.



**Robert W. Liles JD, MBA, MS** Liles Parker, Attorneys & Counselors at Law Washington, DC, United States

# Enforcement actions and investigations targeting weight loss providers and clinics

In recent years, semaglutide medications have dominated weight loss headlines. Not surprisingly many weight loss providers and clinics have refocused their approaches, incorporating these drugs into patient treatment regimens. Unfortunately, the popularity of these drugs has led to a number of bad practices, ranging from overutilization to poor compounding practices. Insurance companies auditing claims for reimbursement have identified documentation deficiencies, improper coding practices, and incidents of outright fraud. During this presentation, we will discuss the current enforcement environment and discuss ways that weight loss providers and clinics can reduce their level of regulatory risk.

### Audience Take Away Notes

- Participants will be able to discuss the various types of government investigations and prosecutions currently being pursued by Federal/State prosecutors and agency officials targeting weight loss providers and clinics
- Participants will learn about specific government initiatives focusing on the ordering of GLP-1 receptor agonist drugs
- Participants will be able to demonstrate steps that they can take to reduce their practice's level of risk and increase its compliance with regulatory requirements
- Participants will be able to discuss how to best respond if they are audited or investigated by law enforcement in connection with their GLP-1 ordering and prescribing practices

### Biography

Mr. Liles' background is rather unique. In addition to a law degree, he holds an MBA and an MS in Health Care Administration. Robert has worked on the provider side (in hospital administration), as a Federal prosecutor and now represents physician practices around the country in connection with Medicare/Medicaid and private payor audits and investigations. While working as a Federal prosecutor, he was asked to serve as the country's first National Health Care Fraud Coordinator for the DOJ's, Executive Office for U.S. Attorneys. Since entering private practice, Robert has continued to build on his health care background and experience.


Sandi Assaf\*, Harish Thoppe SHSU College of Osteopathic Medicine, Conroe, TX, USA

#### A lycopene rich diet: An Ozempic alternative

C emaglutide, more commonly known as Ozempic, was approved in 2021 by the US Food and Drug Administration. Although originally intended for type 2 diabetes treatment, Semaglutide was found to help with weight loss and began to increase in popularity. It acts as a Glucagon-Like Peptide-1 (GLP-1) receptor agonist which allows it to improve glycemic control with a low risk of hypoglycemia; it also reduces body weight, blood pressure, and cholesterol levels. However, Semaglutide is contraindicated in those with a history of gallbladder disease, pancreatitis, medullary thyroid cancer, and MEN2 (Multiple endocrine neoplasia syndrome) and the side effects include headache, nausea, vomiting, diarrhea, constipation, fatigue, and dizziness. Lycopene has been shown to be effective in treating both type 2 diabetes and obesity because of its ability to metabolize glucose and improve insulin sensitivity. Dietary lycopene supplementation has been found to regulate lipid metabolism and decrease fat deposition effectively. A literature review was conducted to find foods rich in lycopene such as tomatoes, watermelon, and papaya, as well as foods that naturally increase GLP-1 levels such as fish, olives, and avocados. Based on the literature review, a nutritional analysis was conducted, and a daily diet was created using FooDB, USDA's FoodData Central, and USDA's Dietary Guidelines for Americans. The proposed diet focuses on Lycopene-rich foods and foods that increase GLP-1; in addition, other foods were selected that achieve the recommended daily allowance of vitamins and minerals. The diet is 1346 total calories and contains 4599.08067 mg of Lycopene. This is achieved from 200 grams of Sockeye salmon and 100 grams of each of the following: garden tomato, watermelon, lettuce, papaya, grapefruit/pomelo hybrid, avocado, olives, lemon, red bell pepper, cow milk, eggs, and millet. Given the increasing popularity of Ozempic and some of the challenges with prescribing it to patients for long-term weight loss goals, there is a great need for nutrition research focused on a sustainable fat-burning diet. Patient education on natural alternatives to Ozempic that achieve comparable results will be invaluable in primary

#### Audience Take Away Notes

- The audience will gain a better understanding of foods that mimic the effects of Ozempic
- The audience will become more informed on the mechanism of action of Ozempic and will be better able to explain to patients how to maintain a diet that enhances their glucose and lipid metabolism
- This provides a more affordable, long-term weight-loss solution than Ozempic that can be taken by patients with contraindications

#### Biography

Sandi Assaf is a second-year medical student at Sam Houston State University College of Medicine. She studied anthropology at the University of California, Los Angeles and graduated with her B.S. in 2022. She then took a gap year working as a Clinical Research Assistant at Cedars-Sinai Smidt Heart Institute. During that time, she published and presented research in the fields of anthropology and psychiatry. Her current research interests include dermatology and nutrition.

# **BOOK OF ABSTRACTS**



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# 4<sup>th</sup> Edition of World Obesity and Weight Management Congress





#### De'Andre Nunn OTD, MSEd, USAW-2, OTR/L

Department of Occupational Therapy, Chicago State University, Chicago, Illinois, United States of America

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# Effectiveness of a short-term OT-based health promotion program focused on improving the quality of life and weight management

**Introduction:** The purpose of this pilot quantitative study was to examine the impact of a 6 week Occupational Therapy Based Health Promotion Program (OTBHPP) on adults who would like to improve quality of life and manage their weight. As recent as 2008, the CDC estimated that the medical cost of people who were obese was \$1,400 higher than people of normal weight costing a total of \$147 billion dollars (CDC, Adult Obesity Facts, 2016). The effectiveness of a OTBHPP called Lifestyle Redesign has been shown to significantly improve the quality of life and functioning of the in previous Well Elderly Studies (Clark F. J.-M., 2011). This OTBHPP may have the capacity to produce similar results in a younger population who would like to improve quality of life and address weight management.

**Methods:** The researcher used flyers and recruitment strategies that were purposive sampling, convenience sampling, and snowball sampling. The participants were college students at North Central College. The participants attended one 60-minute session per week over a six-week period. The program consisted of 8 educational modules focused on weight management adapted from the modules presented in Clark, et al., (2015), including occupations, time management, stress management strategies, physical activity dining, nutrition, relationships and thriving. Utilized RAND SF-36 to measure the quantitative data gathered in this study. The assessments were scored per the instructions provided with the assessment. Data was analyzed using Microsoft Excel. Once the assessments were scored the researchers calculated the mean and standard deviation for each health domain scale.

**Results:** The pre-intervention average total score for is 684.3 and the standard deviation is 97.8. The average total score after the six sessions was 768.1 (out of 800) and the standard deviation is 9.3. The results indicated an increase in the ability to function without a change in physical health. The results approximately 21 days after the completion of the 6-week intervention average total score for the follow-up was 706.3, and the standard deviation was 59.9.

**Conclusion:** Utilizing an OT intervention that would address the person holistically could prove beneficial in improving the overall quality of life and engagement in occupation. Furthermore, several modifiable risk factors were addressed through an OTBHPP. The results indicate that the participants have a high level of physical health and there may be other domains of their health that are impacting their energy/ fatigue levels. These results lead researchers to conclude that the subjects were able to increase the ability to engage in meaningful activities. Furthermore, the results of the follow-up assessments demonstrate improvements despite not being involved in the intervention for approximately three weeks. The habits and routines through occupation appear to improve quality of life and ability to engage in meaningful activity.

**Implications:** This study supports the use of the use of an Occupational Therapy Based Health Promotion Program focused on Quality of life and weight management. With continued studies in this field, it may be possible to demonstrate Occupational Therapist skill set using group intervention and eventually get reimbursed by all insurance companies.

#### Audience Take Away Notes

- The attendees will be able to indicate an understanding of the use of occupational therapy and health education as a meaningful treatment for obesity and improving quality of life
- The attendees will be able to teach students about how occupational therapists can be assets to interdisciplinary healthcare teams in obesity treatment
- The attendees will be able to describe at least two methods that clinicians can use to address obesity treatment in teaching, practice or research programs
- The presentation will educate the audience on how occupational therapists can address the obesity epidemic within the scope of OT practice by using OT skills and theories
- Provides an additional non-surgical treatment option for obesity and weight management

#### Biography

Dr. Nunn obtain a BA in Exercise science from the University of Northern Iowa, MSEd in Kinesiology from Northern Illinois University, Master of Occupational Therapy from Midwestern University, and Doctor of Occupational Therapy from the University of St. Augustine. He has taught college courses related to health, exercise science and occupational therapy for over 15 years. As an exercise professional he has trained amateur and professional athletes. As a healthcare clinician he has treated patients of all ages and abilities.



**Elamari Saloua\*, S. Laidi, A. Chadli, F. Marouane** Mohammed VI University of Health Sciences, Morocco

#### Hypothalamic obesity: The importance of early nutritional management

**Introduction:** The clinical manifestations of hypothalamic obesity mainly include severe obesity, accompanied by eating, social, and cognitive disturbances. It can be either genetic or acquired, and there is no specific treatment available.

Case report: We followed two children with hypothalamic obesity following surgery for craniopharyngioma. The aim was to assess the effectiveness of dietary management and therapeutic education for the patient and their family. Our two patients, aged 12 and 13 respectively, underwent transsphenoidal surgery for craniopharyngioma. Both had anterior pituitary insufficiency and diabetes insipidus. Weight gain began preoperatively in the first patient, with an increase of 8 kg over 9 months, worsening postoperatively, leading to the development of an eating disorder. The total weight gain was 21 kg over 2 years (BMI=34 kg/m<sup>2</sup>). In the second patient, weight gain started postoperatively concurrent with the development of an eating disorder, with a total weight gain of 25 kg over 3 years (BMI=35 kg/m<sup>2</sup>). The eating disorder in both cases involved mainly nocturnal snacking, selective food intake, and binge eating, especially in the immediate postoperative period. Dietary analysis revealed a hypercaloric, hypoproteinic, hyperglycemic, and hyperlipidic diet in both patients, with low consumption of dietary fibers and dairy products but high consumption of refined carbohydrates and soda. Neither patient received nutritional follow-up during the craniopharyngioma treatment period. We proposed dietary counseling with a normoproteinic diet (1g/kg/ day to 1.5g/kg/day) and a hypocaloric diet to promote weight loss. Meal splitting (3 to 4 meals) and varied, balanced diet rich in fibers were recommended. Therapeutic education aimed to understand and manage eating disorders, particularly binge eating, and plan low-density meals for snacking. Over 6 months of weekly initially, then monthly dietary follow-up, we were able to stabilize the initial weight and achieve a slight weight loss of 2 kg in the first patient and 3 kg in the second patient.

**Conclusion:** Regular, personalized nutritional follow-up and early therapeutic education during the initial stages of disease treatment for patients with hypothalamic obesity could lead to avoide significant weight gains, which are difficult to manage and can lead to additional complications.

#### Biography

Dr. Elamari saloua is an Assistant Professor at UM6SS in Casablanca, Morocco, with a background in medicine from Faculté de médecine et de pharmacie de Casablanca. Formerly associated with CHR Hassane II and CHU Ibn Rochd, his career spans clinical practice and academia. Known for expertise in [specific areas], he actively contributes to medical research. He is committed to shaping future healthcare professionals through teaching. Based in Casablanca, his impact extends beyond academia, reflecting a dedication to community well-being.



Isabel Michalak<sup>1\*</sup> BS, Angelo Richardson<sup>1</sup> MA, Isaac Treisman<sup>1</sup> BA, Juan Pablo Cobar<sup>2</sup> MD, Amir Ebadinejad<sup>2</sup> MD, Krishna Pancholi<sup>1</sup>, Morgan Beatty<sup>1</sup> BA, Michael Stevens<sup>1</sup> PhD, Dale S. Bond<sup>2</sup> PhD, Papasavas<sup>2</sup> MD, Darren Tishler<sup>2</sup> MD, Godfrey Pearlson<sup>2</sup> MD, Mirjana Domakonda<sup>2</sup> MD

<sup>1</sup>Olin Neuropsychiatry Research Center-IOL/Hartford, CT, USA <sup>2</sup>Hartford Hospital/Hartford, CT, USA

# 12-month postoperative cognitive performance following sleeve gastrectomy

**Background:** Prior research reports decreased multi-domain cognition following significant weight gain and both increased and decreased cognitive performance, with a focus on memory, following bariatric surgery. These inconsistent data leave room for further exploration of the issue of post-operative cognitive change in Metabolic Bariatric Surgery (MBS) patients.

**Objectives:** To explore cognitive performance changes in Sleeve Gastrectomy (SG) patients 12 months postoperatively compared to preoperative baseline. To understand any potential implications/advantages from rapid weight loss on memory/cognition.

**Methods:** Pre- and 12m postoperative Sleeve Gastrectomy (SG), participants (N=20) from the Metabolic Bariatric Surgery program, approved for surgery, were assessed using the California Verbal Learning Test (CVLT) and in multiple cognitive domains using the CogState Online Testing Battery. The latter included a variety of visual and verbal tasks, e.g the Groton Maze Task, One back and Two back learning, and Continuous Paired Association. Missing endpoint data (N=10) were interpolated using the MICE method in R with predictor variables including gender, age, education, and weight. Paired t-tests assessed initial score differences between timepoints for each CogState subtest of interest, and supplementary analysis was done with a linear mixed methods approach.

**Results:** At an  $\alpha$  level of 0.05, uncorrected for multiple comparisons, no cognitive measure showed a statistically significant change pre- vs post-operatively. Findings were unaltered following interpolation for missing values. Additionally, no performance trend was discernible. The mixed effects model used to examine covariates found no significant main effects.

**Conclusion:** The results showed no replication of previous research in bariatric patients reporting either significant MBS post-operative cognitive increases or decreases. Both the CVLT and CogState battery that were utilized are widely-used, well-normed assessment tools. Although these measures did not return significant results, future investigations can make use of a larger sample, and incorporate more diverse measures to assess other dimensions of cognition and their improvement or decline in relation to SG.

#### Audience Take Away Notes

- Understanding the need for higher level analysis for memory and cognition performance in bariatric surgery patients
- Identifying specific domains of cognition to further study
- Better understanding the necessary sample size for statistical significance in measuring cognition for this population

- Contributing to a precedent of researching obesity as a condition that impacts the brain
- Understanding possible cognitive advantages/implications following Metabolic Bariatric Surgery

#### Biography

As a clinical research assistant in neuropsychiatry, Isabel Michalak's primary focus lies in bariatric surgery and overall health at any weight. With a Bachelor's degree in Behavioral Neuroscience from Michigan State University, she has discovered a fulfilling blend of brain imaging and clinical experience at the Institute of Living. These experiences are preparing her for her next steps in higher education. Their ultimate objective is to make meaningful contributions to research and scientific literature, fostering an environment where individuals can embrace empowered lifestyles conducive to sustained physical and cognitive health.



**Jae-dong Lee** Department of Family Medicine, The Catholic University of Korea Eunpyeong St. Mary's Hospital, Seoul, Korea

# Association between serum vitamin D levels and obesity in Korean adults based on the national health and nutrition examination survey

**Background:** Korea is one of the countries in which vitamin D deficiencies are prevalent, and many studies have recently reported that vitamin D deficiency may be associated with obesity. The aim of this study was to investigate the relationship between serum vitamin D (25(OH)D) levels and obesity parameters (Body Mass Index [BMI], waist circumference) in Korean adults based on the National Health and Nutrition Examination Survey.

**Methods:** This study was conducted for 2,367 adults aged 19 to 60 years who participated in the National Health and Nutrition Examination Survey for 2013-2014. Independent sample t-test was performed to compare the difference in general characteristics between vitamin D deficiency group and sufficiency group based on serum 25(OH)D concentration of 20ng/mL. Linear regression analysis was performed to analyze the effect of serum 25(OH)D concentration on BMI and waist circumference.

**Results:** The mean serum 25(OH)D level of all subjects was lower than the standard value of 20ng/mL. There was no correlation between obesity rates based on BMI of serum vitamin D sufficiency and deficiency group in both genders. However, in males, the abdominal obesity rate based on the waist circumference was higher in the vitamin D deficiency group than in the sufficiency group. In addition, the BMI decreased by 0.035 kg/m<sup>2</sup> and the waist circumference decreased by 0.105 cm as the serum 25(OH)D concentration increased by 1 ng/mL in men.

**Conclusion:** Vitamin D status was inversely associated with obesity parameters (Body Mass Index [BMI], waist circumference) in adult men.

Keywords: Vitamin D, Obesity, Body Mass Index, Waist Circumference.

#### Audience Take Away Notes

• The audience will understand the importance of Vitamin D supplementation in helping to prevent obesity

#### Biography

Dr. Lee studied medicine at the Pusan University, South Korea and graduated as MS in 2016. He then joined the research about obesity and sarcopnenia at the Catholic University of Korea Eunpyeong St. Mary's Hospital, Seoul, Korea.



Joelle Hoeferkamp University of the Incarnate Word School of Osteopathic Medicine, United States

# Gauging national public interest in weight loss medications: A google trends analysis

**Background/Hypothesis:** The growing epidemic of obesity has increased the need for weight management options exponentially. Weight Loss Medications (WLMs) in particular have demonstrated efficacy in weight management and demonstrated efficacy in post bariatric surgery weight loss maintenance. This study aims to assess both national and state trends in public online searches related to WLMs.

**Methods:** Both generic and brand name FDA-approved weight loss medications were targeted in addition to the phrase "weight loss medication". These terms included "Phentermine/Topiramate+ Qsymia", "Naltrexone-Bupropion+ Contrave", "Semaglutide+ Wegovy", "Liraglutide+ Saxenda", "Orlistat+ Xenical", "Phentermine+ Adipex-P+ Lomaira", "Benzphetamine+ Regimex", "Diethylpropion+ Tenuate", and "Phendimetrazine+ Bontril". A Google Trends analysis was conducted to collect Relative Search Volume (RSV) during the period of 2004-2021, observing trends at both a national and state level in the United States.

**Results:** Analysis revealed a 2.2-fold increase in the search term volume for weight loss medication (P<0.0001). There were substantial increases in search volume for Phentermine/Topiramate+Qsymia, Naltrexone-Bupropion+Contrave, and Liraglutide+Saxenda by 7.3-, 17.4-, and 32.0-fold increases, respectively (P<0.01, P<0.001, and P<0.00001). In contrast, there were decreases in search volume for Orlistat+Xenical, Phentermine+Adipex-P+Lomaira, Benzphetamine+Regimex, Diethylpropion+Tenuate, and Phendimetrazine+Bontril by 4.0-,1.8-,5.5-,3.1-, and 6-fold decreases, respectively (P<0.0001, P<0.0001, P<0.0001, P<0.0001). State analysis indicated that the prevalence of search terms for weight loss medication predominately stemmed from the Southeastern United States.

**Conclusions:** The data demonstrates a consistent upward trend of national public interest in weight loss medication for the long-term management of obesity since 2004. In light of escalating obesity rates these findings provide valuable insight in prioritizing future treatment strategies. Furthermore, the data highlights the importance of promoting public awareness to a multidisciplinary approach for weight loss management especially in the Southeastern United States, where online search volume for weight loss medications was most prominent.

#### Biography

Joelle Hoeferkamp is currently a rising fourth year medical student at the University of the Incarnate Word School of Osteopathic Medicine in San Antonio, Texas. In years prior, she received her Bachelor of Science in Biochemistry at the University of the Incarnate Word and completed a Post Baccalaureate in Advanced Pre-Medical Studies at Cooper Medical School. Ms. Hoeferkamp recently published her research in the The Future DO-Student Osteopathic Medical Association Research Journal and is looking forward to continuing her research in residency next year.



#### Johnny H Wen<sup>1</sup>\* PhD, Lena Wen<sup>2</sup>, Amy Wen<sup>3</sup>, Houman Solomon<sup>4</sup> MD

<sup>1</sup>Providence Hospital, Torrance, CA., USA <sup>2</sup>Torrance, CA., USA <sup>3</sup>Torrance, CA., USA <sup>4</sup>Medical Director, Torrance, CA., USA

# The study of class III morbidly obese subjects seeking gastric bypass, gastric sleeve, or other bariatric surgical procedures

This culturally diverse group were Class III morbidly obese (BMI/Kg=47.04, sd 9.70) pre-surgical bariatric participants who received pre-screening psychological assessments that included the Personality Assessment Inventory. A total of 41 subjects were included in this prospective study, single site, age range between 19-68 (mean age 47.7, sd 11.65) and education years (mean 13.4, sd=1.95). Eighty- and one-half percent were females, with 56.1% Hispanic, 7.3% Caucasian, 17.1% African American and 4.9% Asian, 9.8% stated to be "other". Nine patients were seeking the gastric sleeve procedure, 23 patients were seeking the gastric bypass procedure while 6 of the patients have not decided at the time of this evaluation but desired to move forward with a surgical procedure, and already consulted with his/her bariatric surgeon.

Almost 71% of the patients reported obesity issues during their adult life only (>18 years of age). Sixty eight percent have tried commercially available/formal diet food programs without success.

With this diverse cultural population, we provide various group mean T scores on Personality Assessment Inventory protocol. Although there were no specific questions addressing diet, food preferences, or eating disorder concerns on the measure, this inventory certainly did address chronic, acute, or severe mental health and substance use concerns to assist with the pre-screening process.

#### Audience Take Away Notes

- The audience will learn about pre-surgical psychological assessment and tools used in this study as well as some perceived limitations
- The audience will learn about multi-ethnic diversity and general habits/routines and the role it plays in this study
- The audience will learn about recommendations made for future work, research, and studies

#### Biography

Dr. Johnny Wen and staff researchers/assistants are committed to this single site study and providing services to the bariatric population. Dr. Wen is fellowship trained in neuropsychology from Harbor-UCLA Medical Center. He has 11 published papers in peer reviewed journals and one book chapter published by Guildford Press.



#### Mohaddeseh Hasanzadeh

Department of community Nutrition, Shahid Beheshti University of Medical Science, Tehran, Iran (Islamic Republic of)

# Psychological interventions for treating eating disorders in children, review

indings indicate that psychological interventions especially motivational interviewing and Cognitive Behavioral Therapy (CBT) as interventions to treat eating disorders are effective and durable. The psychological interventions reviewed here are successful interventions that Improve food consumption patterns by improving diet quality and providing nutritional advice to teens. Therefore, people can be aware of the best method to enhance the quality of life of their clients. To findings, self-efficacy is the main predictor of eating habits. Also, empirical evidence indicates that self-efficacy increases physical activity and with CBT, the actual involvement of physical activity is improved. However, detailed analyses of individual components of the interventions are recommended in future effectiveness studies. Eating disorders can increase the risk of health consequences during childhood and adolescence, including diabetes, cardiovascular risk factors, muscular-skeletal problems developmental delays, or sleep disorders. As a result, it is one of the most serious public health challenges of the current century. Weight loss and control requires a comprehensive approach because this problem occurs in all aspects of a person's life, including the individual environment, home, and community. CBT emphasizes the process of changing the persistent habits and attitudes of mental disorders. Therefore, CBT is a suitable method for the treatment of obesity. A meta-analysis study was conducted in 2017 which showed that the psychological treatment of CBT was very effective in weight loss in obese adults with eating disorders. However, there has been no comprehensive study on eating disorders and health promotion in obese children and adolescents with this method. Therefore, the present study evaluated the effect of psychological treatment on weight loss in children and adolescents according to current studies.

#### Biography

Dr. Mohaddeseh Hasanzaseh finished an M.Sc. degree in public health in nutrition at Tehran university of Medical Science (the best university in Iran by ranking) in 2021, and her GPA is 3.94. Moreover, she studied Doctorate of Business Administration (GPA: 4.00). She won the best researcher and lecturer year award at the Islamic Azad University in 2023. She has presented more than 13 publications such as research articles, conference papers, and posters at international congresses.



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# 4<sup>th</sup> Edition of World Obesity and Weight Management Congress

### **WORKSHOPS**

#### Weight bias in healthcare settings and college campuses: A guide to acknowledging sizeism, the impacts of discrimination, and advocating for change

Weight stigma refers to individuals' social devaluation and denigration due to their excess body weight, leading to negative attitudes, stereotypes, prejudice, and discrimination. More than 40% of U.S. adults have reported experiencing a form of weight stigma. That stigma can lead to feelings of shame, depression, anxiety, unhealthy weight loss behaviours, and eating disorders. As healthcare professionals, it is up to us to create welcoming environments that are free from discrimination, and it starts with acknowledging our own biases. In this presentation, you will learn about weight stigma and how it impacts people of all sizes. You will also learn how to identify your own internalized biases and how you can overcome them to be a more inclusive medical provider and researcher.





#### Allison Insunza MPH, CHES; Angela Conte RN, M.A.Ed

California State University–Long Beach, Long Beach, CA, United States

#### Biography

Allison Insunza: Allison Insunza has been working in the field of health promotion for 10 years. She is a Certified Health Education Specialist, Certified Intuitive Eating Counselor, and Licensed Body Positive facilitator. In her role as a Health Educator at CSULB, she has been a Body Positive facilitator since 2016. Since then, she has facilitated 1-2 groups a semester and presented at the following conferences: ACHA Annual Meeting 2018, NIRSA Region VI Conference in 2023, and the 2023 ARHE/ARS/AAPG Annual Conference & HECAOD National Meeting. Angela Conte received her Bachelor of Science degree in Nursing in 1994 from Wagner College in Staten Island, New York. After many years working in the field of pediatric nursing, she transitioned to student health in higher education in 2008. She has been an administrator at California State University Long Beach for over 15 years, and currently her role is Director of Operations, Student Health Services. In 2022, she received her Master of Art degree in Education, with an emphasis in higher education administration. Aside from her management role, she co- founded the Body Positive at the Beach program in 2015 and is a licensed facilitator. She has presented the Body Positive program at the NASPA Western Regional Conference in fall 2016, ACHA 2017 (Washington DC), 2023 ARHE/ARS/AAPG Annual Conference & HECAOD National Meeting (virtual), NIRSA Region VI Conference in 2023 (Long Beach, CA), and was accepted to present in person for ACHA 2020 (Chicago, IL).

**Angela Conte:** Angela Conte received her Bachelor of Science degree in Nursing in 1994 from Wagner College in Staten Island, New York. After many years working in the field of pediatric nursing, she transitioned to student health in higher education in 2008. She has been an administrator at California State University Long Beach for over 15 years, and currently her role is Director of Operations, Student Health Services. In 2022, she received her Master of Art degree in Education, with an emphasis in higher education administration. Aside from her management role, she co- founded the Body Positive at the Beach program in 2015 and is a licensed facilitator. She has presented the Body Positive program at the NASPA Western Regional Conference in fall 2016, ACHA 2017 (Washington DC), 2023.

## The missing ingredient: Emotional intelligence training for the health & fitness sector

The health & fitness sector has never created a consistently effective strategy to successfully engage the 80%+ of the population that is outside of our club and/or studio environment. These customers do not feel safe and are not made to feel comfortable. We don't create a nonjudgmental atmosphere, we do not stimulate peer group support & accountability and we don't encourage mutual respect. We don't provide an inclusive real-sense-of-community; nor do we create a "love-the-skin-you're-in environment". This is a 3-tier problem for 3 stakeholders: Owners, managers and fitness professionals. Join bob as he discusses how emotional intelligence skills can be utilized to both manage-up and train-up these 3 stakeholders. His ultimate objective: Developing strategies & tactics for transforming lives & communities through lifestyle changes.

#### Audience Take Away Notes

- From the top of the organization to the grass roots
- Review the value of defining the customer avatar
- Once the avatar is defined, learn how to develop a very granular customer-centric value proposition that can create reasons for non-customers to join, To Stay and refer their friends, family members to join
- Learn how to create an in-house staff training program that can support/reinforce the value Propositions
- Create a customer-centric series of programming options that support the short term, mid- term & long-term goals/objectives of our customers
- Learn how successfully implementing items 1 thru 4 can enable our T.E.A.M.s to Teach, Inspire, Motivate & Empower our avatars



#### Bob Esquerre MA, NSCA-CPT

Esquerre Fitness Group International, USA

#### Biography

Before joining the Health & Fitness Sector, Bob spent over 13 years in Corporate America specializing in Business Planning, Project and Operations Management. With 38 years in the Sector, he has become a Trainer of Trainers, Instructor of Instructors, and Manager of Managers. His expertise covers Group Exercise, Personal Training, and Operations Management. As a global lecturer, Bob offers Business Growth Strategies and Operations Analysis to Club/Studio Owners, Managers, and Fitness Professionals. His focus: (1) developing strategies to create safe, customer-centric communities that effectively engage the 80%+ inactive population and (2) incorporates Emotional Intelligence skills in developing Fitness Professionals.

# Building the provider-patient relationship to enhance behavior change

Obesity is one of the most significant health challenges we face today. Even with the proliferation of promising treatments to help lose weight, achieving sustainable weight loss is better served when behavior and lifestyle changes coincide with medical interventions. But how do we achieve that? Given that the provider-patient relationship is one of our most important relationships when it comes to our health and is a key driver of health outcomes, this workshop takes a deep dive into the factors that impact the relationship along with tools to help guide enhanced behavior change for both providers and patients.

#### Audience Take Away Notes

- Explore three common behavior change theories used in obesity research
- Understand the provider role in the medical encounter and how motivational interviewing can enhance behavior change
- Understand what the patient role is in behavior change
- Learn best practices for developing a stronger provider-patient relationship



#### **Gretchen Holmes**

Sam Houston State University, United States

#### Biography

Dr. Gretchen Holmes is an awardand accomplished winning senior-level hospital executive, Graduate Medical Education (GME) DIO, Clinical Trials Leader, and an experienced social science researcher/methodologist who is driven by her passion to bring humanity back to medicine by fostering a learning environment that teaches future providers to be compassionate and competent and to embrace patient centered-care. She earned her BS and MA degrees from New York University and her PhD in Health Communication from the University of Kentucky with a Graduate Certificate in Medical Behavioral Science. She currently serves on the editorial board for the Journal of Patient Experience.

# Stop feeling shame around food: A 3-part framework to overcome emotional eating and lose weight for good

I will offer a 3-part framework to understand and overcome emotional eating. The first part includes an overview of shame around eating, the neuroscience of food addiction/emotional eating, and marketing and media influences (Learning). The second addresses family messages, societal/community norms around eating, and how being deeply in touch with our own feelings and unmet needs are all pivotal to recovery (Loving). The third includes an understanding and a brief practice (time permitting) of our sympathetic and parasympathetic nervous systems and how they impact our eating behavior, as well as an overview of how getting in touch with our own unique strengths, values, and vision for health are pivotal to the recovery process (Living).

The main goals are for attendees (medical professionals and patients alike) to explore and consider their own relationships with food and to emerge with greater clarity about their own eating habits; to fully grasp that shame has no place around eating and why; and to clarify the multifaceted nature of emotional eating, and that there is no "one-size fits all" approach, making health and wellness coaching an important part of a team for an individual's growth and recovery. Practitioners will emerge with greater understanding of patients' behaviors and needs, and will understand possible avenues for additional support.



#### Janet Frank Ph.D, NBC-HWC A-CFHC, PFAC

National Board Certified Health and Wellness Coach ADAPT Certified Functional Health Coach, Professional Food Addiction Coach Janet Frank Coaching, LLC, Gainesville FL, USA

#### Biography

Dr. Frankearnedher B.A. in Psychology from the University of South Florida, and her Ph.D. in Clinical-Community Psychology from the University of South Carolina. She spent 10 years in private clinical practice. She left practice due to symptoms of undiagnosed autoimmune disease and gluten intolerance, which were making it difficult to sustain the work. She made an unexpected but enjoyable detour into sales and later sales coaching, during which time she learned to manage her health and thrive. During this time, she also lost her father to heart disease. Her COVID epiphany was that she had the perfect marriage of personal and professional experiences to serve as a health and wellness coach. She is the Founder of Janet Frank Coaching, and has particular interests in weight loss and emotional eating; stress management; and prevention and management of chronic disease through lifestyle behaviors.

## Associations between MC4R gene variants, food intake, and body composition in a heterogenic population

besity is a medical condition associated with increased Body Mass Index (BMI) and adipose tissue resulting from a complex interaction between genetic and environmental factors. The genes responsible for obesity are related to the leptin axis and the melanocortin pathway, specifically the Melanocortin-4 Receptor (MC4R) gene. MC4R gene mutations represent the most common monogenic cause of obesity. Our study aimed to investigate the links between MC4R gene variants, calorie intake, and body composition, potentially leading to obesity. Using targeted sequencing, genomic DNA (gDNA) isolated from buccal cells was used to genotype fifty subjects for common MC4R polymorphisms. Subsequently, their anthropometric measurements, daily macronutrient intake, and other pertinent factors were evaluated. According to our findings, MC4R variants were detected in 36% of the participants. The percentage of genotype carriers with higher frequencies was rs34114122 (16%), rs6567166 (14%), and rs61741819 (10%), with higher frequencies in the African-American population. The study found a strong association between calorie intake and the rs34114122 variant (p=0.0002) but not for the other variants, rs6567166 (p=0.130) and rs61741819 (p=0.374). For female participants, higher calorie intake was a significant factor (p=0.03) for those with MC4R variants compared to the control group (no MC4R variants). No significant associations were found between MC4R variants and body composition measures. According to our research, the influence of common MC4R variants on obesity and its metabolic disorders might be contingent upon daily dietary intake. Consequently, this could pave the way for individualized dietary regimes to prevent and address obesity and its related comorbidities.

#### Audience Take Away Notes

- Learn about MC4R variants and their association with obesity
- Understand the impact of an individual's genetic makeup on food intake
- Learn why screening for obesity-related genetic variants is crucial in predicting predisposition to obesity

Augusta University. Dr. Silva also holds a doctoral degree in Education with a focus on educational innovation. Her research focuses on genetic biomarkers, particularly monogenetic variants associated with severe obesity that impact food intake and circulating microRNAs that predict drug resistance in patients with Multiple Myeloma. Dr. Silva has made significant contributions to science by publishing over 30 research articles in peer-reviewed journals. Her dedication to teaching and learning is reflected in her commitment to advising students to foster critical thinking skills and a lifelong love of learning.



#### Giti Bayhaghi<sup>1</sup>, Zubair Karim<sup>2</sup>, Jeane Silva<sup>3</sup>\* PhD, MPA, EdS, EdD, MB(ASCP) CM

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<sup>2</sup>MS-DI Program, Department of Nutrition & Dietetics, College of Allied Health Sciences, Augusta University, Augusta, GA, 30912, USA

<sup>3</sup>Department of Health Management, Economics, and Policy, Augusta School of Public Health, Augusta University, GA, 30912, USA

#### Biography

Dr. Silva earned a Ph.D. in Pharmacology and is board certified in Molecular Technology by the American Society for Clinical Pathology. She is currently an Associate Professor in the Ph.D. program in Applied Health Sciences at the School of Public Health,

# Finding, facing, rewriting, and replacing your food story: A practical tool for supporting patients' weight loss journey

T his one-hour workshop will equip healthcare professionals with a practical and innovative tool to help their patients develop a deeper consciousness about the food and emotion connection, significantly enhancing the effectiveness of weight loss treatments.

#### Workshop Goals:

- Equip healthcare professionals with a new tool to help patients understand how to manage and master food.
- Demonstrate how addressing the psychological aspects of food addiction improves the effectiveness of medical interventions.
- Provide hands-on experience with the prescriptive writing process for replacing limiting beliefs about food.

#### Workshop outline:

- 1. Introduction
- **Objective:** Introduce the concept of food stories and how unresolved emotions tied to food contribute to weight issues.
- Discussion points:
  - o Explain the "confusion, clarity, recovery" model.
  - o Emphasize the connection between emotions, memories, and food choices (linking back to the abstract).
  - o Highlight how understanding a patient's food story improves treatment outcomes by helping them see food as just nutrition.
- 2. Finding your food story
- Activity: Guided Memory Recall.
- **Instructions:** Ask participants to reflect on a memory where a specific food played a significant emotional role.
- **Prompt:** "What is your favorite food? Why? What is your first memory of this food?"
- Goal: Help them see the emotional root of a food behavior.
- **Group sharing:** Invite 2-3 participants to briefly share their stories (optional, depending on the comfort level of the group).
- 3. Facing the food story
- Activity: Identifying Limiting Beliefs and Patterns.
- **Instructions:** Participants identify a limiting belief connected to the memory they recalled.



#### **Michelle Petties**

Leaving Large: The Stories of a Food Addict, Annapolis, Maryland

#### Biography

Michelle Petties is a Tedx speaker, author, Food Story coach, and host of Get the Back Story Live, which airs monthly on the SORC® TV-Radio Network. Her memoir, Leaving Large-The Stories of a Food Addict, a category winner in The 2022 Memoir Prize for Books, features the awardwinning essay, The Cake is in the Mail. Her memoir illustrates how events, experiences, and memories inform our beliefs, attitudes, and habits around food, eating, and hunger. After gaining and losing over 700 pounds, Michelle developed a Prescriptive Writing Process for making peace with her mind, body, and food. Michelle now conducts healing-through-reading-writingand-storytelling workshops where she teaches others how to find their food and personal truths. She speaks to organizations, large and small, sharing her unique insight and her story of hope, healing, triumph, and transformation.

- "What belief about food or yourself emerged from that memory? How has it impacted your eating habits today?"
- Example: A belief might be "I deserve a reward, and food is the easiest option."
- **Discussion:** Share how unresolved emotional ties to food perpetuate addictive eating behaviors and undermine patients' progress.
- 4. Rewriting the food story
- Activity: Prescriptive writing.
- Instructions: Guide participants through the process of rewriting their food story.
- **Prompt:** "Now, rewrite your story. How would you rewrite that memory to reflect a healthier relationship with food?"
- **Goal:** Encourage participants to reframe the memory in a way that prioritizes nourishment, not comfort or escape.
- **Example:** Instead of viewing food as a reward or comfort, see it as a tool for nourishment and health.
- 5. Replacing the food story
- Activity: Visualization and Affirmation.
- **Instructions:** Lead a short visualization where participants imagine themselves in future situations making healthier food choices based on their new story.
- **Prompt:** "Visualize yourself encountering that food or similar emotional triggers. How will you respond now that you've rewritten your story?"
- Affirmation example: "I choose foods that nourish and heal my body."
- **Discussion:** Reinforce the idea that rewiring the brain to adopt new food stories helps break cycles of emotional overeating.
- 6. Conclusion & application for Patients
- Discussion: Summarize how attendees can apply this process in their clinical work.
- Explain that once patients understand their emotional connection to food, medical treatments (such as medications or surgery) can become more effective.
- **Q&A:** Open the floor to questions and insights.

#### Materials needed:

- Notebooks or handouts with prompts.
- A quiet space for the visualization exercise.

#### Audience Take Away Notes

- Understanding and addressing emotional eating is crucial to patient success
- This process can be integrated into their patient care strategy to create lasting change
- Writing and reflecting help patients break free from the emotional cycles tied to food addiction

#### Building personalized patient weight loss diet plans

**Description:** Learn how to create a personalized weight loss plan that can achieve patient goals while respecting lifestyles and restrictions. Although many current diet trends and medications have shown to be effective short term, there may be long term vitamin and mineral deficiencies as well as difficulty in maintaining it. This workshop will allow participants to learn tools on how to use current literature and food banks to create sustainable eating patterns. The intention is to spread awareness to healthy eating and dieting and increase resources for participants.



#### Sandi Assaf

SHSU College of Osteopathic Medicine, Conroe, TX, USA

#### Biography

Sandi Assaf is a second-year medical student at Sam Houston State University College of Medicine. She studied anthropology at the University of California, Los Angeles and graduated with her B.S. in 2022. She then took a gap year working as a Clinical Research Assistant at Cedars-Sinai Smidt Heart Institute. During that time, she published and presented research in the fields of anthropology and psychiatry. Her current research interests include dermatology and nutrition.

# **BOOK OF ABSTRACTS**



# We wish to meet you again at our upcoming events

#### 5<sup>th</sup> Edition of

#### **World Obesity and Weight Management Congress**

Orlando, Florida, USA | October 23-25, 2025 https://obesityworldconference.com/

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