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Accepted Abstracts



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Social representations: Diet patients with chronic non transmissible

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Introduction: The "diet" is located within a complex social worldview, where culture is a collective creation ideologically internalized in each individual, and is fully accepted by society. Chronic Noncommunicable Diseases [NCD] are a group of diseases whose importance lies in being the main cause of morbidity and mortality worldwide, all these share important points from the point of view etiopatológico, leading all in one treatment: "diet".

Objective & Methodology: To explore the common sense of the "diet" in patients with NCDs. The theoretical and methodological basis of social representations (RS) was resumed, which integrate cognitive concepts such as, estereotipos, beliefs, symbols, etc., semi-structured interviews were applied to 200 patients a Family Medicine Unit of the Mexican Social Security Institute State of Mexico East, that to define patients from the "diet".

Results: The term "diet" was associated with an address with a range of very high association to: "what you can eat", "it is very difficult to follow the diet by the time", "what fills me"; "Diet is not as important as medication", "what you should eat" and "with food one can control the disease" "you eat what is not allowed", "it is what it tells me the doctor can eat", "are foods you recommend nutritionist", confirming that the "diet" is a social construct biomedical control and also is out of the acceptance and assimilation of the patient.

Conclusions: The end of this research reveals that the thin threads of marginalization and ignominy of our collective suffering NCDs expose a food inequality and perpetuation of an inadequate diet, despite public policies on nutrition, these are far of reality, opening a field of research from the area of nutrition the primary focus "diet".

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"Smart choices, smarter life" - An intervention to reduce childhood obesity

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Childhood obesity has emerged as a critical public health concern with over 42 million overweight and obese children worldwide. It is fundamental for the growing prevalence of obesity to be addressed. Interventions worldwide have been implemented to reduce obesity; however the need for more successful interventions is vital. Reducing childhood obesity is crucial as obesity is at the forefront of association with many non-communicable diseases such as cardiovascular disease. "Smart choice, smarter life" is a proposed intervention to be implemented in Queensland, Australia. "Smart choice, smarter life" is evidence-based, developing on the intervention "smart choices" which was implemented in Queensland, Australia in 2005. "Smart choice, smarter life" will begin with in-school focus groups for both parents/guardians and students. Following the completion of the focus groups, students will engage in an activity-based program, which will allow them to match what they have in their lunchboxes to the "smart choices" regulations. To test the success of "Smart choice, smarter life" students' anthropometric measurements including waist circumference and body mass index (BMI) will be recorded at the start and at the end of each academic term. "Smart choice, smarter life" aims to form habits among children, which will have a positive influence in their later life. If the intervention is cost-effective and beneficial, there is potential for the measure to be implemented throughout Australia and worldwide.

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The validation of an instrument to assess parental feeding styles of children in Filipino language

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Overweight and obesity are emerging major problems among children today worldwide. Research on parent feeding styles and practices has begun to provide some clues about the role parents play in the etiology of childhood obesity. Recently attention has been directed toward the parental feeding styles. Experts have suggested that gestation to early infancy is a critical period in which physiologic changes occur that greatly influence a child's later risk for obesity. The objective of the study is to examine validity and reliability of an instrument translated to Filipino language for characterizing parental feeding practices. Subjects were the parents with toddlers from the University of Santo Tomas Hospital. A focus group discussion was done. The toddler feeding questionnaire was translated to Filipino language. A final questionnaire underwent pretesting and Cronbach's alpha test. Data analysis was done using Strata SE version 13. Quantitative variables were summarized while qualitative variables were tabulated. Test-retest and Cronbach's alpha tests were done. A total of 18 parents participated in the study. About 89% of the toddlers had normal weight according to the WHO growth standards (weight for length). All but two items (Q18 and Q33) in the final questionnaire reached significant differences ($p < 0.05$). The overall internal reliability of the questionnaire was acceptable ($\alpha = 0.82$). This instrument was found to be valid with acceptable reliability and internal consistency.

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Dietary fiber: A novel approach for prevention and management of obesity and obesity associated diseases; detection in food by immune chromatographic test strips

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In recent era, the changes in the dietary preferences have created various diet-related health problems such as obesity and cardiovascular disease (CVD's). Dietary modification is a vital tool for alleviating such malfunctioning. In this regards, dietary fiber has gained significance attention. There is a dynamic relationship between diet and disease. Poor diet is the most important factor contributing to an epidemic of overweight and obesity affecting all segments of our society. To curb the obesity epidemic and improve their health, many people must decrease the calories they consume and increase the calories they expend through physical activity. At various times in the history, obesity links and precursor of many diseases such as cardiovascular diseases (CVD's), diabetes, hypertension, cancer, strokes and many gastrointestinal (GI) disturbances. The most recent data illustrates that 72 percent of men and 64 percent of women are obese after age of 30 years. For prevention and management of obesity, we used naturally occurring foods which are high in dietary fiber concentration in order to increase nutrient density, promote healthy lipid profiles and glucose tolerance, and ensure normal gastrointestinal function. From scientific study, higher level of dietary fiber in diet reduces serum lipid concentration, improves blood glucose level in diabetes patients, lowers blood pressure, helps in weight loss and aids in improving immune functionality. Ingestion of optimum amount of dietary fiber in the diet increased the satiety rate, slow-transit constipation and reducing obesity which are one of the main problems in the worldwide. To meet the recommendation for fiber, people should increase their consumption of beans and legumes, bran, vegetables, fruits, cereals and whole grains. Food choices should be such that they suffice the needs of the body in the best possible way and thus ensure perfect health and strength. Dietary fiber is also an important factor for determining physiological events. It is globally accepted that dietary fiber is good for health. Furthermore, both fibrous foods and physical activity have positive synergistic effects on individuals.

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Effects of oral and subcutaneous administration of Roselle calyx (*H. sabdariffa*) extract on weight management and controls

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Roselle (*Hibiscus sabdariffa* L., family Malvaceae) is consumed in Nigeria as a refreshing drink and for therapeutic purposes. This study was to examine the effects of *H. sabdariffa* calyx extract on the body and organ weight of Albino rats. The second goal was to compare the effects on the target organs via routes of administration (oral against subcutaneous). Sixty Albino rats of both sexes with an average weight of 204.14 ± 2.1 g (Mean \pm S.E.M) were assigned by sex, age and weight to a control group (VA and VB) and test groups (IA to IVA and IB to IVB). Empirical measurements on body weight was conducted prior to and after the experiment. They were administered with varying concentrations of the extract by oral and subcutaneous routes (10 to 50 mg/kg) for 30 days at 2 days interval. On day 31, all rats were sacrificed by anaesthetization. The internal organs were excised, weighed, grossed and fixed in Bouin's solution for 48 hrs prior to histological processing. Sections were obtained at 3-5 microns and stained with Mayer's haematoxylin and eosin for light microscopy. No comparable changes are observed histologically. However, gross effects on the organs and body weight of experimental animals showed significant reduction when compared to the control (VA and VB) and test groups (IA to IVA and IB to IVB). In comparison, with the oral administration, empirical measurement showed a massive weight loss in the high dose treated animals (both routes of administration) but are marked in the oral route. Therefore, this study suggests that *H. sabdariffa* calyx extracts may be used for weight management and control. However, further studies are required to examine the biochemical and hematological effects in Albino rats.

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Do making habits or breaking habits influence weight loss and weight loss maintenance? A randomised controlled trial

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Background: Despite the significance placed on lifestyle interventions for obesity management, around 40% of weight loss is regained over the first year following treatment, and much of the rest over the next three years. Two psychological concepts (habitual behaviour and automaticity) have been suggested as the most plausible explanation of this overwhelming lack of long-term weight loss success.

Method: We evaluated the efficacy of two interventions that explore these theories: Ten Top Tips (10TT) and Do Something Different (DSD). 10TT promotes automaticity; this is the ability to perform tasks without awareness or deliberation. Therefore, diet and exercise related behaviours become automatic or habitual. Conversely DSD promotes behavioural flexibility. This program disrupts daily routines by assigning an individual with unstructured tasks to perform. Behavioural flexibility therefore has an inverse relationship with automaticity and is defined as the measure of an individual's range of mindful behaviours. Men and women (n=75), aged 51 ± 6 (s.d.) years with body mass index 34.5 ± 4.1 kg/m² were randomised to 12-week 10TT, DSD or no treatment control. Active intervention participants underwent 12 weeks of the program with 12-months follow-up.

Results: We collected data for weight, BMI, waist circumference as well as habitual behaviour and wellbeing. After 12 weeks intervention, weight loss averaged 4.6 kg in the 10TT group, 4.1 kg in the DSD group and 1.3 kg in the control group. There was significant improvement in wellbeing in the 10TT and DSD groups.

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Tertiary care overweight and obesity management in Bangladesh: An exploration of the level of awareness and common barriers of physicians

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The aim of the present study was to assess the knowledge, attitudes and identify the barriers of the physicians regarding overweight and obesity management. A simple cross sectional study was conducted among 155 physicians through a standard questionnaire from 3 selected governments and 1 private hospital of Dhaka city, Bangladesh. Mean age of the 155 physicians were 31.88 ± 5.92 . Majority of them 80 (51.60%) were unable to answer the correct prevalence of overweight but also a 75 (48.40%) could mark the right answer. A substantial proportion 71 (46.70%) of the physicians mentioned that they do not have much to do controlling weight problem in Bangladesh context. Majority of the physicians 148 (95.5%) use BMI to measure weight problems, whereas only 13 (8.4%) practice waist circumference as a diagnostic tool. As weight management strategies most of the time 122 (85.3%) advice to modify the life style, while 93 (68.4%) occasionally refer to dietician. About 74 (47.7%) of the physicians reported lack of motivation, 73 (47.1%) mentioned short consultation time and 60 (38.7%) said that lack of national policy or management guideline are few barriers to treat weight problems. Again, perceived barriers like lack of parental support, lack of a national policy were statistically significant ($p < 0.05$) with their occupational designation. This present study being the first one in country suggests for future large scale research to define physician's role, need of further training and identify the new strategies to include in the health system for dealing with this growing epidemic.

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Developing a patient and provider interface for individualized patient care

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Obesity rates are on the rise in USA and globally with over 641 million individuals with obesity, a major risk factor for many chronic diseases. The American Board of Obesity Medicine has certified 1,590 Diplomats, but there continues to be a lack of obesity specialists available to patients and most turn to their primary care provider for help. Studies show that patients and providers want to have better understanding of different treatment options currently available as well as new innovations. There is a need for solutions that bridge the knowledge gap for both the patients and providers as well as enable patient engagement and drive patient outcomes in obesity care. H₂O- Health to Outcomes, a patient-provider solution for obesity, is being developed by a team of cross-sector professionals that includes obesity specialists, doctors, clinicians, consumer groups, data scientists, information experts and technology specialists. It will enable providers to determine the closest treatment match for similarly situated patients. In addition, it will support real-time patient engagement and monitoring throughout the treatment cycle including feedback loops to reinforce or adjust treatment. By combining medical science, individual status, lifestyle, behavior and other data sources the solution engine will leverage different machine learning and statistical methods to generate best fit patient treatment options. These options are based on identification of patient type, high responders, as well as cost, quality, outcome and utilization data. Two important elements of the Patient-Provider Solution are the provider and patient interfaces. The interfaces will support the patient and provider with real-time information and education to guide the decision making process, track progress and offer support during the patient's journey.

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How did an albino patient lose 148 lbs of weight? A case report

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Introduction: Obesity is a highly prevalent and yet the most neglected disease. The number of overweight and obese people reached 2.3 billion and 700 million worldwide respectively, by the year 2015. Obesity is not a social disgrace but an actual disease with a major genetic component to its etiology. Obesity treatment is a lifelong task. Weight reduction medications should be used as an adjunct for diet restriction, exercise and behavioral modifications, when these measures alone have not resulted in adequate weight loss. We hereby present a case of a morbidly obese male patient with oculocutaneous albinism who has lost 148 lbs of weight. Furthermore, the report highlights the genetic link between oculocutaneous albinism and obesity.

Case Presentation: A 28-year-old male with oculocutaneous albinism presented with 361.8 lbs of weight (BMI: 62.1) and complaint of difficulty in losing weight. Physical examination revealed hypertension, low intelligence, gynecomastia and infantile testicles. Lab investigations showed unregulated hyperlipidemia and hypotestosteronemia. The patient was prescribed Xenical (Orlistat) 120 mg. Over the period of five years, he lost 83.8 lbs. After this time, Xenical's effectiveness was significantly reduced. Consequently, the patient was given on Victoza (Liraglutide) on which he lost 64 lbs in three years. Thus, a sum of 147.8 lbs of weight was lost without any side effects of the drugs.

Discussion: Obesity needs to be treated within the healthcare system as any other complex disease. We observed Xenical and Victoza to be safe and effective in reducing obesity. Substantial literature has emerged to show that in both oculocutaneous albinism and Prader-Willi syndrome (the most common genetic cause of obesity) where the P gene is mutated on Chromosome 15. This highlights the genetic susceptibility of our albino patient for developing morbid obesity.

Conclusion: Obesity develops from the interplay of both genetic and environmental factors. This case clearly illustrates that Xenical and Victoza can be safe and efficient for weight loss in a morbidly obese patient. Furthermore, scientific research in the genetic aspects of obesity can help develop new strategies towards its prevention and treatment.

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Frequency of consumption pattern of beverages among civil servants in Ogun State

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Beverage consumption is commonly found among the elites in the society. This study aimed to determine the frequency of beverage consumption among the civil servants in the state. A cross sectional study was carried out among randomly selected 500 civil servants in Abeokuta Ogun State. Anthropometric measurement was used to determine the nutritional status. The blood pressure was measured using sphygmomanometer. A validated structured questionnaire was used obtain information on the beverage consumption. The result of the anthropometric measurements study showed that 11% of the subjects were obese while 45% were overweight. Only four percent of the subjects had hypertension. The result of the frequency of consumption of beverages revealed that there were significant differences between male and female ($p < 0.005$). The study showed that there is strong correlation between beverage consumption and development of chronic non communicable diseases.

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Regulation of obesity and insulin resistance by *Foeniculum vulgare* and *Anethum graveolens* extract in high-fat diet-induced obese rats

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Obesity is a risk factor for developing insulin insensitivity and cardiovascular disease. Adiponectin is a serum protein that is secreted primarily from adipose tissue, with concentrations that are inversely correlated to the body mass index (BMI). Leptin and proinflammatory interleukin-6 (IL-6) are directly proportional with obesity. Natural products *Foeniculum vulgare* and *Anethum graveolens* have been reported to have hypoglycemic and insulin-sensitizing activities. In this paper, we explored the effects of combined extract of *Foeniculum vulgare* and *Anethum graveolens* on HFD-induced obesity in rats. We randomly divided Sprague-Dawley male rats into four groups: Control, high fat diet (HFD), HFD with the combined extract (0.045 g/kg/day) and HFD with the combined extract (0.45 g/kg/day) groups. Diabetic profile parameters (fasting blood glucose level, serum insulin, HOMA-IR), rat weight, total cholesterol, triglyceride, HDL-C, LDL-C, liver function, kidney function, adiponectin, leptin, IL-6, liver malondialdehyde, glutathione and glutathione peroxidase activity were measured in all groups. Feeding rats HFD for 8 weeks developed features of insulin resistance. These features presented in increased body weight, hyperglycemia, hyperinsulinemia, hypercholesterolemia (with increased LDL-Cholesterol and decreased HDL-Cholesterol) and hypertriglyceridemia and also decreased adiponectin levels and increased leptin and IL-6 levels and decreased glutathione and glutathione peroxidase activity. The combined extract (both doses) treatment decreased fasting glucose significantly, improved levels of diabetic profile parameters, lipid profile, liver and kidney function and elevated adiponectin, decreased leptin and IL-6 and decreased oxidative stress. Our results suggested that the combined extract of *Foeniculum vulgare* and *Anethum graveolens* is a unique natural medicine against obesity.

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The effect of telephone reminder in physical activity amount and motivation: A randomized clinical trial

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This double blind randomized clinical trial aimed to evaluate the effect of phone reminder plus exercise prescription on physical activity amount, motivation and anthropometric parameters in patients who want to lose weight. The inclusion criteria were: BMI \geq 25, no participation in any exercise in last three months, no contraindication for aerobic exercise, no taking noninvasive methods during last 6 months, no bariatric surgery during last year and agreement to not take other weight loss method during the study. Forty-six patients were randomized in to two groups by computerized randomization in exercise prescription or exercise prescription plus 10 minutes telephone reminder a week. The first group did 30 minutes moderate walking (50% of heart rate reserve) 5 days a week. The second group did exercise like the first group but they were called by the researcher who remembered doing the prescribed exercise. Both groups took the same amount of calorie. Anthropometric parameters (weight, height, BMI, waist circumference, thigh circumference, pelvic circumference and body fat percentage), motivation and physical activity amount were measured before, one and three months after intervention. Physical activity and attitude were measured by international physical activity questionnaire (IPAQ) and motivation questionnaire, respectively. Body fat percentage was measured by bio impedance analyzer (BIA). Mean of motivation and physical activity score was increased in both groups after 3 months which was statistically significant (p-value <0.05). The anthropometric parameters did not change after 3 months in both groups. Mean difference of physical activity, attitude and anthropometric parameters after 3 months, was not significant between two groups (p-value >0.05). Ten minutes a week telephone reminder could not change the physical activity motivation, physical activity amount and anthropometric parameters in patients who take exercise prescription for weight loss.

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Long-term efficacy of a paleolithic-inspired diet on weight loss in an overweight and obese population: A two-year study in real life setting of the 1, 2, 3 diet

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Background: The paleolithic diet, devoid of food-processing procedure, is more satiating and produces a greater weight loss than recommended diets, but seems impossible to implement in our modern times where refined food is dominant. We investigated in humans whether by excluding only few refined foodstuffs implicated in obesity, it was possible to overcome the limited food choices of the paleolithic diet, but still restore early satiety and the subsequent weight loss.

Methods: In this 2-year prospective study, we assigned 105 overweight subjects (mean age 50, mean BMI 30.5 Kg/m², 39% with type 2 diabetes) to an ad-libitum diet that excludes 6 refined foodstuffs (margarine, vegetable oils, butter, cream, processed meat, and sugary drinks) called the "1,2,3 diet". Professional contact was minimal. The primary outcome was the change in body weight.

Results: At 2 years, participants had lost an average of 4.8 kg ($p < 0.001$), which represents 5.6% of their initial body weight. Among completers (51%), the average weight loss was 5.5 kg ($p < 0.001$), 56% and 22% had a reduction of at least 5% and 10% of their initial body weight respectively. 82% of participants adhered to the diet. Among diabetics, weight loss was similar to non-diabetics, the mean HbA1C level decreased by 1% ($p = 0.001$)

Conclusions: The 1,2,3 diet produces a long-term weight loss similar to high-intensity intervention diets. Avoiding 6 refined food items rather than counting calories, fat, carbohydrate or protein, appears to be a cost-effective approach. Larger controlled studies are required.

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The impact of subtle neuro-developmental difficulties on childhood obesity

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A large number of young people with subtle neuro-developmental difficulties are referred to child and adolescent mental health services each year due to concerns about emotional and behavioural problems. Whilst, they often fail to meet the strict diagnostic criteria for a particular diagnosis, these young people present with substantial elements of ADHD, Autism, Dyslexia, Dyspraxia, OCD and Tics. The difficulties which these young people experience relate predominantly to the way in which they process complex sequences of internal and external information. This includes their processing of somatic sensations including taste. Young people with subtle processing problems therefore often struggle with unhealthy eating and obesity. One difficulty is their tendency to fussy eating. They often have a very limited food repertoire, do not like different food items touching on their plate or having any sauces on their food. The other difficulty is their limited ability to track body sensations including feelings of hunger or satiation. Children with subtle processing problems can therefore be very focussed on specific brands, often foods that are highly processed. They tend to eat impulsively, both in terms of volume and when they want to eat. In addition, as they struggle to conceptualise feelings of fullness, they tend to eat by sight or according to the amount of food available. This paper therefore explores how young people with subtle neuro-developmental difficulties find issues around eating and food confusing and overwhelming, which then acts as a foundation for childhood obesity and lifelong habits of unhealthy eating.

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Approach of health worker professionals towards diabetes: A case study of state specialist hospital Sokoto, Nigeria

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Introduction: Diabetes is a perpetual illness which requires multidisciplinary push to oversee. Approach of healthworker professionals towards patients and for sure patients themselves have awesome effect on the result of the sickness.

Objective: This study was gone for investigating the disposition of pharmacists, doctors and medical attendants towards the care of diabetes.

Methodology: The state of mind of pharmacists, specialists and medical attendants towards the requirement for exceptional preparing to give diabetes care, reality of type 2 diabetes, estimation of tight control, the mental effect of diabetes mellitus and the requirement for patient self-governance were investigated utilizing the third form of the Diabetes Attitude Scale (DAS-3).

Results: There were distinction in the mean state of mind scores of the three calling in all subscales with the exception of that of patient self-rule. Medical attendants had the least mean scores in all the subscales with the exception of the requirement for uncommon preparing subscale, where they had a higher score than doctors yet not as much as pharmacists $P < 0.001$. Doctors had a higher score on the earnestness of type 2 diabetes subscale took after by pharmacists and medical attendants. For the estimation of tight control subscale pharmacists and doctors had a comparative somewhat uplifting state of mind which contrasted essentially from medical caretakers, who had a low score connoting a negative mentality to the things in this subscale. In the psychosocial effect of diabetes subscale, doctors had the most noteworthy score took after by pharmacists, with attendants scoring the least. In any case, there was no factual contrast between the pharmacists and medical attendants' score, $P > 0.05$. As to the patient self-sufficiency subscale, all the three experts had a mean score than 4 showing low consent to the subscale things.

Conclusion: The wellbeing experts aggress to valuable extraordinary preparing in diabetics care. Medical attendants had the minimum good state of mind towards diabetes: slightest qualities the earnestness of type 2 diabetes, tight glycaemic control, and patient independence. Doctors and pharmacists demonstrated somewhat inspirational states of mind. Enhancing the disposition of wellbeing experts fits in with cutting edge way to deal with enhance results.

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Identification of MiR-26a as a target gene of bile acid receptor BPBAR-1/TGR5

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GPBAR1/TGR5 is a G protein-coupled receptor of bile acids. TGR5 is known to regulate the BA homeostasis and energy metabolism. Recent studies highlight an important role of TGR5 in alleviating obesity and improving glucose regulation, however, the mechanism of which is still unclear. Here we report that TGR5 is involved in mediating the anti-obesity and anti-highperglycemia effect of a natural compound, oleanolic acid. By comparing the miRNA profiles between wild-type and TGR5^{-/-} livers after OA treatment, we identified miR-26a as a novel downstream target gene of TGR5 activation. The expression of miR-26a in the liver was induced in a TGR5-dependent manner after feeding the mice with a bile acid diet. TGR5 activation strongly increased the expression of miR-26a in macrophages, including the Kupffer cells in the liver. We further demonstrated that JNK pathway was required for miR-26a induction by TGR5 activation. Interestingly, we located the TGR5-responsive DNA element to a proximal region of miR-26's promoter, which was independent of the transcription of its host genes. These results unravel a new mechanism by which bile acid receptor TGR5 activates a miRNA gene expression.

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Psychological & social factor causing obesity

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Introduction: Today's time is advancing in all aspects and the senior citizen are getting less social, more psychologically depressed with the use of internet, facebook, whatsapp.

Aim: The purpose of study is to correct BMI, to find out social & psychological factor leading obesity, to correct nutritional deficiency, to educate about right nutrition. The social factors are: loss of one partner, depression, and children get married, living alone, having less intake leading to poor nutritional status eating imbalanced meals, skipping meals. The physiological factors are: do not have couple of teeth, dentures, diabetes, hypertension, piles and indigestion.

Methodology: 508 (60 – 80 years) senior citizen workshops were conducted, recipes developed, and it had been given to them to include in daily diet and special perform & psychological test was developed. They were educated about calorie dense nutrient dense foods, with more immunity booster. They developed support group to share their experiences on psychological as well as social factors leading to obesity (alcohol consumption due to various reasons, loss of family members etc.).

Results: Social factors remained significant predictors of BMI after controlling for all health behaviors. Neither social factors alone, nor health behaviors alone, adequately explained the variance in BMI. Gender specific interactions were found between social factors and individual health behaviors. Results suggest that social factors & psychological factors moderate the relation between BMI and weight – related behavior that has given overall metaphorical paralysis of our brain and all body organs, because we are depending on more machines and this gives warning to change to our grandfathers day, more outgoing to nature.

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Disease prevention, search for a healthier lifestyle and aesthetic motivation for weight loss

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Introduction: A lot of studies show relation between obesity and development of several diseases (NHANES). This work aims to evaluate the profile and the motivation of people who want to lose weight, as well as identify the reasons for failures to achieve their goals.

Methods: 187 individuals, who wanted to lose weight, were studied. Among which, 48.6% were between 35 and 44 years old and 86.6% were female. This is a cross-sectional, descriptive and analytical statistical study and the statistical tests (Odis Ratio) concede to reach 95% as the range of confidence.

Results: 44.4% among the participants had over weight by the Body Mass Index (BMI), 22.6% obesity grade I, 22% normal BMI, 7.5% obesity grade II and 3.5% obesity grade III. It's worth noting that 22% of the participants with normal BMI, still wanted to lose more weight; however, most of them (97.5%) aimed to lose an amount of weight that wouldn't put them in a risk group (Low weight). The main reasons that led them to lose weight were to be healthier and to prevent diseases (38.5%), aesthetic reasons (33.6%) and to feel more willing (18.2%). Aesthetic reasons were more frequent among them and had normal BMI (56%), while among the obese (grade I, II, III), health motivation was the most frequent (63.5%). In this group, there was a higher prevalence of associated diseases and the chances to develop diseases for this group was 3.9 times greater than on the normal BMI group ($p=0.002$). On the other hand, among obese grade III, these odds increased to 8.9% ($p=0.008$). The majority (88.2%) assumed had no health habits: 49.7% of them by lack of discipline, 13% by lack of available time and 14% by lack of energy or emotional motivation to practice these healthy choices.

Conclusion: It's important to know what happens on our patient's mind, to choose the best therapeutical strategy in order to get succeeded in treatment. This study showed that among the higher degree of obesity, the greater are the chances of having diseases, compared to the normal BMI group.

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Calmodulin dependent protein kinase (CaMK)-II activation by exercise regulates lipid metabolism in rat skeletal muscle

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Background: Activation of calmodulin dependent protein kinase (CaMK)-II by exercise has plethora of benefits in metabolism and health. Regulation of lipid metabolism is very significant to alleviate type-2 diabetes and obesity. The role of CaMKII in the regulation of genes that are involved in lipid metabolism has not been studied yet, which became the focus of this study.

Methods: 5-6 weeks old male Wistar rats were used in this study. Western blot was performed to assess the protein expression of Carnitine palmitoyltransferase (CPT)-1 and Acetyl-CoA carboxylase (ACC)-1. Cpt-1 and Acc-1 gene expressions were assessed using Quantitative real time PCR (qPCR).

Results: The results indicate that exercise-induced CaMKII activation increases CPT-1 expression and decreases ACC-1 expression in rat skeletal muscle. Thus, confirming CaMKII activation by exercise and the resultant increase in lipid oxidation. Administration of KN93 (CaMKII inhibitor) reversed all exercise-induced changes.

Conclusions: This study demonstrated that CaMKII activation, by exercise, regulates lipid metabolism genes in rat skeletal muscle. Further, the increase in lipid oxidation and decrease in lipid synthesis are evidence of the regulatory role CaMKII in lipid metabolism. CaMKII is a potential target in designing novel therapeutic drugs in the management and treatment of type-2 diabetes and obesity.

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