**Pathos**

*Create a law to protect models from getting dangerously skinny!*

<https://www.change.org/p/jackiedp-help-protect-models-from-getting-dangerously-skinny-rosalienelson-modelslaw-lfw>

Pathos has been used in the article through the application of an effective critical thinking that makes the society receptive to the entire scope of life using imagery and allegory. It helps in critical thinking and makes humanity respond vividly to reactions as well as emotions and help in effective integration of humanity. Through pathos, there is harnessed orientation of human mind that is responsible for actual interpretation of facts and proper learning exercise. The article addresses the use of pathos to enhance wits and make the human mind actively involved in the social comprehension of issues that help in future growth and development. Alongside that, the article uses pathos through the inclusion of figures of speech to enhance the effectiveness of human interpretation and social understanding of issues for a properly integrated critical thinking. Ultimately, the use of Pathos in the article assists in the realization of socialism that is beneficial for the social development through accurate interpretation of facts and boosted critical thinking. The article categorically applies the use of allegory to express how pathos is significant in the configuration of the human mind to make livelihood effective and improve the standards of life among people. Besides, the article applies pathos in everyday life through the application of figures of speech to advance diversity among people and adopt a workable framework for future endeavors, hence, stability of the human nature. The application of pathos in the article is central to the fact that humanity needs reformation to help in future development and enhance the degree of human capacity. Ultimately, the article is significant since it applies pathos to show the relevance of human vibrancy through the inclusion of objects that make humanity relevant and sets the pace for the future regarding critical understanding of ideas.

**Ethos- Morality**

*Unexplained Weight Loss*

<https://www.mayoclinic.org/symptoms/unexplained-weight-loss/basics/definition/sym-20050700>

The moral authority of a writer can appeal the audience to trust the writer’s articles. It is important for a writer to have great moral. The authors of the article have the moral authority to discuss the weight loss issues because the society deems them to be fit and followers of the healthy lifestyle. The article identifies that losing weight with making an effort to lose weight is a sign of an underlying medical condition. The author explains the need to go for a medical check-up in case one loses over five percent of his weight within six to twelve months.

**Ethos - Authority**

*The Key to Weight Loss Is Diet Quality, Not Quantity, a New Study Finds.* <https://www.nytimes.com/2018/02/20/well/eat/counting-calories-weight-loss-diet-dieting-low-carb-low-fat.html>

Ethos examines how an article successfully establishes authority by making the audience feel that he author is credible and trustworthy. The author of this article efficiently and professionally addresses how people who are keen of reducing the sugar intake, intake of processed foods and refined grains concentrate on taking a lot of vegetables and whole food without checking on the portion sizes lose significant amount of weight. The author clearly researched on the subject and shows a high level of authority in the presentation. The author explains that the strategy works for people whether they decide on low fat or low carbohydrate diets. The success of this strategy does not depend on the insulin response of the individuals. The article strongly supports the focus on the quality of diet, not the quantity. Quality diet is what is responsible for the loos and maintenance of weight.

**Logos, Facts, Numeric Data -- QUANTITATIVE Information**

*A Lesson from the Biggest Losers: Exercise Keeps Off the Weight.* <https://www.nytimes.com/2017/10/31/health/biggest-losers-weight-loss.html>

The article describes the weight loss journey of 114 participants and provides the facts by presenting the lost pounds. This study found that the people who maintained significant weight were those who had moderate activities daily for eighty minutes or vigorous exercises for thirty- five minutes. The study found that the main determinant of the weight lost is the food which is eaten. At the beginning of the show the average weight for the participants was 329 pounds while at the end it was 200 pounds. However, there was a rebound six years later of their average weight was 290 pounds. The author gives a detailed explanation of the weight loss journey of some of the contestants using numeric information.

**Logos, Information expressed in words – QUALITATIVE Information**

*Ten Essential Facts about Metabolism and Weight Loss* <https://www.everydayhealth.com/news/essential-facts-about-your-metabolism-weight-loss/>

By using qualitative information, the article describes metabolism and how it relates to weight. Metabolism refers to any chemical process that take place in the body. The amount if calories that are burnt while just sitting around is a vital concern. The article explains that by eating more proteins, an individual’s metabolism can be boosted. The article identifies that Cerderquist explains that simple carbohydrate like bread raises insulin levels which encourages the body to store sugar as fat. As such, it encourages that people should consume high quality carbohydrates such as legumes, fruits, and vegetables. The author also presents evidence showing that more muscles equal to high metabolism, thus, the reason why men tend to have a higher metabolism than women. The article concludes that metabolism that functions well has several positive benefits besides weight loss such as ability to cope with stress and being able to control hunger and mood.

**Logos, Logic explained**

*For Weight loss, Exercise is Important but Calories Move the Needle* <http://www.chicagotribune.com/lifestyles/health/ct-exercising-vs-calories-for-weightloss-20170823-story.html>

When evaluating how an article appeals to logos, the logical aspect of the arguments in the article is considered and how much evidence supports the argument. The author explains that just exercise on its own does not help in the loosing of weight, but, highlights that exercising has several great benefits. The author is clear that to lose weight, the most important aspect is cutting calories. The author gives sufficient evidence to support her point. Reitman marc highlights that the role of exercise in the process of weight loss is overrated and further explains that the cause of obesity is overeating, not lack of exercise. The author also supports her idea by acknowledging that Joyner Michael who is a clinic researcher agrees that the key to weight loss is generating and maintaining calorie deficit. In addition, Smith Philip who is a director at NIDDK’s obesity research office says that walking for an hour cannot help in weight loss. As such, by including evidence from professional, the author logically explains the relationship between exercise and weight loss.

**Selective Attention**

*The Relationship between Weight Loss and Stress*

<https://www.fitday.com/fitness-articles/fitness/weight-loss/the-relationship-between-weight-loss-and-stress.html>

The article directs its sole focus to the fact that there is a close relationship between weight loss and stress. The author outlines that it is hard for people to lose weight when they are dealing with stressful situations in their lives. According to the article, stress and food cravings, hormones leading to weight gain, slow metabolism, and loss of appetite all of which are associated with weight gain make the process of losing weight a lot harder than it should be. The article relates all those aspects with weight gain although some of them can also such as loss of appetite contribute to weight loss, the article overlooks this fact to focus on how this factor can result in weight gain.

**Confirmation Bias**

*Trolling our confirmation bias: one bite and we are easily sucked in* <http://theconversation.com/trolling-our-confirmation-bias-one-bite-and-were-easily-sucked-in-42621>

Confirmation bias entails the tendency of people to interpret the newly developed evidence to confirm the already existing beliefs or theories. The confirmation bias works in this article because its information relies on recent research development showing that eating chocolate could help people lose weight faster. The article bases its claim on this research and goes ahead to explore the fact that chocolate could, in fact, help lose weight faster.

**Assumption**

*If you want to lose weight by Running, Read this, by Jenny Sugar* <https://www.popsugar.com/fitness/Why-Running-Doesnt-Help-Weight-Loss-23050499>

When an assumption is applied, the statement used is assumed to be true, and it is eventually used to conclude. The article focuses on presenting reasons why the running exercises might not be helping in weight loss program. The author provides reasons that can be termed as assumptions which one can apply if they want the positive result on weight loss while running. For instance, assuming that not running enough or the post-run pig-outs could cause an individual not to lose weight as much as they want to.

**Generalization from Aggregated Examples**

*Why don’t people always lose weight when they run?*

<https://www.theguardian.com/lifeandstyle/the-running-blog/2016/nov/02/why-dont-people-always-lose-weight-when-they-run>

The articles draw its statements from observing several people lifestyles, particularly those that have tried to lose weight. The author notes that people do not always lose weight when they run. Although weight loss is a goal coveted by most of the runners, they do not always achieve this goal. The article also provides the readers with some of the reasons as to why people do not achieve weight loss from running. However, the author concludes by noting that running is superior to merely take a walk as running expends a higher energy level and calories hence there is a likelihood that weight loss can still happen.

**Something Abstract**

*Why do I find it hard to lose weight?*

<https://thebloodsugardiet.com/difficulty-losing-weight/>

The article, Why Do I Find it so Hard to Lose Weight, is based on something existing only in the mind of the author because the outlined reasons to why the writer cannot lose weight can be caused by something more than what is presented in the article. The writer outlines lack of willpower as the reason not to gain weight. However, it is possible that an individual can have a strong willpower to lose weight but the hormones or other factors contributing to weight gain might deter them from losing weight. Although it is agreeable that willpower is one of the drive to successful weight loss one, the argument is not based on something substantial like scientific research or evidence.

**An Argument with Explicit Claim, Reason, Warrant**

*The Hormonal Relationship between Weight Loss and Metabolism* <http://www.losebabyweight.com.au/the-hormonal-relationship-between-weight-loss-and-metabolism/>

An argument with explicit claim, reason or warrant implies that the article states its claim in a precise, clear, and direct manner that is readily observable hence nothing is left out for implication. According to this article, there exist a hormonal relationship between weight loss and metabolism. It implies key hormones influence metabolism. This affects the weight loss which has one thing in common, sugar. The article supports the claim by the applying the fact that, when the blood sugar levels are too high, a signal message is sent to all the body parts to counteract by responding with signaling out other hormones which result in excess blood sugar that is stored in the bod as fat. Hence, in such a situation it is hard for one to lose weight. As a warrant, the article explains how hormones, such as cortisol, estrogen, ghrelin, and leptin can prevent one from losing weight due to their effects in the body system.

**An Argument with Implicit Claim, Reason, Warrant**

*Hispanic and Obesity- The Worrying Truth*

<https://www.boxingscene.com/weight-loss/33563.php>

When an article uses an implicit claim, the statements are not directly expressed. Therefore, this article seems to lay in this category because it is indirectly applying that Hispanic and Obesity go hand in hand with one another. The author supposes that the Hispanic people are more prone to weight gain due to their choice of cheap, sugary, and fast-food which makes it easy for them to gain weight and hard to lose it. To warrant the presented argument, the article engages with one of the immigrants who confirms the fears that junk and sugary food can indeed lead to weight gain which is not easy to lose. Also, the article from another source from Hispanic news regarding weight problems in the Hispanics

**Operational definition**

*Calories Definition*

<http://www.exercise4weightloss.com/calories-definition.html>

An operational definition defines a concept by how it is measured. The article defines calories as a unit of energy. The author further explains that the calorie content of food is measured by kilocalories (kcal). For instance, a 1200 calorie diet would be equated to 12000 small calories. The article further explains the importance of calories in the maintenance or losing of weight. The author also gives an operational definition of the BMR calories that it is the rate which the body’s metabolism burns calories for the daily activities such as sleeping.

**Definition by Example**

*Weight Loss*

<https://patient.info/health/weight-loss-weight-reduction>

Definition by example is whereby a specific definition of a concept snot given but an example illustrating the concept is discusses. The article defines weight loss by highlighting that lo lose weight the energy that goes in should be more than the energy which is consumed. The author explains that by eating more calories than the ones you use, you gain weight as the extra calories are converted to fat and stored in the body. By eating fewer calories than the ones use up, the body stores excess fat to obtain extra energy thus the loss of weight. The author further gives tips of losing weight and notes that the weight loss process should be gradual since fast loss of weight lead to loss of muscle weight rather than fats.

**Evaluation with quantitative criteria**

*Weight Loss vs. Fat Loss- the Difference explained*

<http://www.coachcalorie.com/weight-loss-vs-fat-loss/>

The article evaluates the difference between the concept of weight loss and fat loss using quantitative information. The article explains that while people focus on losing weight, they are not always aware of whether they are losing muscle, bone, fat, or water weight. The author points out that the key aim of weight loss should be to lose as much fat as possible but maintain or even add muscle. The article gives an example that two people could be weighing 150lbs, but one may be having 40 percent body fat while the other may have 10 percent body fat. The weighing scale cannot differentiate the different fat types. As such, the author advises against the overemphasis on weight as the scale can be deceiving. The article illustrates how to focus on losing fat weight giving the relevant percentages and measurements for instance the author says that there should be an attempt to keep protein in the 20 to 30 percent of the total calories range.

**Evaluation with Qualitative criteria**

*Healthy Weight Loss = 80% Nutrition + 20% Exercise*

<https://nutritionstudies.org/healthy-weight-loss-80-nutrition-20-exercise/>

The article uses qualitative evaluation to present how nutrition plays a key role in weight loss. The author narrates her weight loss journey in which she emphasizes on the formula she used being 80% nutrition and 20% exercise. With the understanding about nutrition, the author was able to lose excess weight and maintain a healthy weight. She explains that the best fitness program starts by walking, but it doesn’t wholly help in weight loss. However, the author explains that walking helps to regulate wake sleep cycle and to reduce stress. Even though exercise and managing stress are important, the main way to lose weight is by checking on nutrition and she recommends that people who want to lose weight should eat more vegetables.

**Causal Web**

*Exercise and Weight Loss.*

<https://www.healthline.com/health/exercise-and-weight-loss>

The causal web concept is determined by how an author ensures that the causes are linked to the effects. In this article, the author clearly links how excess weight results to several health issues for instance obesity can cause heart disease, some types of cancer, and stroke as explained in the article. The author goes further to discuss the benefits of exercises in the loss of weight. The author describes several exercises and their effects on individuals’ weight for instance yoga, aerobics and weight training. The author has clearly linked the weight issues to the exercises and the impact of these exercises on the weight loss journey. In addition, the author clearly explains what causes one to change daily routines in order to consider healthy lifestyle habits such as walking. He highlights the positive impact of these healthy lifestyle activities.

**Causal Chain**

*Unexplained Weight Loss causes*

<https://www.mayoclinic.org/symptoms/unexplained-weight-loss/basics/definition/sym-20050700>

Causal chain explains a problem by identifying the causes up to the symptoms of a problem. An article succeeds in portraying a causal web by showing a chain from the causes to the symptoms of an issue. The article highlights the causes of unexplained weight loss which are both medical and non-medical. Some of the causes discussed in the article are cancer, changes in smelling sense, Addison’s disease, celiac disease, changes in taste sense, diabetes, dementia, HIV/AIDS, peptic ulcer, tuberculosis and substance abuse among others. The symptoms of unexplained weight loss are mentioned in the article to include general decline in health and loss of weight. The author explains that some of the causes may show more specific symptoms such as an unrecognized cancer.

**Remote Cause**

*Thirty Little Things Making You Gain Weight.*

<http://www.eatthis.com/causes-of-weight-gain/>

A remote cause is another because that is different from the immediate cause of a problem. The article explains several remote causes of gaining weight. The author identifies that sleeping late, skipping meals, eating very fast, eating out during lunch, sitting most of the time, watching food programs, celebrating with food, using the elevator always, low fat products, soda, cheese, fatty foods, and white bread among others can lead to weight gain.

**Proximate Cause**

*The Real Causes of America’s Obesity Epidemic: Where Does Your State Rank?* <https://www.alternet.org/food/americas-obesity-epidemic-where-does-your-state-rank>

A proximate cause is the issue or event which is immediately responsible for causing an observed result. The article describes the immediate causes of obesity in America. The author identifies that over a third of the Americans are obese. The article identifies two proximate causes of obesity the first one being poor diet. Poor dieting is common in America through overeating, lacking physical activities and overconsumption of sugary and fatty foods. The second proximate cause is the addiction to fast food which is evident by the number of fast foods which operate in America. The industrial food industry has therefore expanded to meet the high demand for fast food.

**Correlation that is not Causation**

*Why Sleep is to Number One Most Important Thing for a Better Body* <https://www.shape.com/lifestyle/mind-and-body/why-sleep-no-1-most-important-thing-better-body>

This concept describes a relationship between variables which does not mean that one variable can cause a change in the other. The article describes the importance of sleep for achieving a better body. There is a relationship between sleep and a better body, even though sleep on its own does not result into having a god body. The article explains that sleep changes fat cells by lowering the activeness of insulin. Sleep also controls diet, more so, when dieting and keeping fit. Not getting enough sleep reduces the benefits of diet. The article also explains that lack of sleep increases food cravings and limits the time for work outs. As such the article gives a clear relationship between sleep and the bod but it is clear that sleep does not directly cause changes in the body, but it controls other things which cause the changes.

**Cause that is Necessary Not Sufficient**

*Common mental disorder and obesity: insight from four repeat measures over 19 years: prospective Whitehall II cohort study.*

<http://www.bmj.com/rapid-response/2011/11/02/nutrition-and-physical-exercise-are-necessary-not-sufficient-preventing-ob>

A necessary but not sufficient cause is an important factor that can result into the result, but it cannot be the full cause; it must be accompanied by other factors. The study finds that for the prevention of obesity, nutrition and physical exercises are important, but they cannot achieve the results on their own. The physical exercises and nutrition education offered to children have not yielded much results in the prevention of diabetes. The article highlights that it is important to understand the cause soft obesity to prevent it and gives examples of the recently found causes to be mental disorders and poor childhood self-esteems.

**Cause that is Sufficient but Not Necessary**

*Sleep More, Weigh Less.*

<https://www.webmd.com/diet/sleep-and-weight-loss#1>

A sufficient but not necessary cause results to a particular event or situation but it must not be there for the occurrence of the event. The article describes how sleep affects weight. The author explains that when not sleeping, the body gets enough time to gain weight. One may be tempted to indulge in fast food or skip exercise while short of sleep. The article explains that over a third of the American population fail to get enough sleep on a regular basis. This lack of sleep contributes greatly to the weight issues. However sufficient this article is in explaining the relationship between seep and weight, sleep is not a necessary cause of weight loss. Sleep must not be a part of the weight loss program to successfully lose weight.

**A Feasible Proposal and a Comment on how the Success of the Proposal will be Determined.**

*Why You Can’t Lose Weight on A Diet*

<https://www.nytimes.com/2016/05/08/opinion/sunday/why-you-cant-lose-weight-on-a-diet.html>

A feasible proposal is workable solution to an issue. The article describes how diets only offers short term effects like improving blood sugar and cholesterol. The changes can be because of behavior changes like eating more vegetables ad exercising. The study explains that the people who are obese, but they exercise, consume vegetables and are not smoking are not likely to die at a younger age than the people with normal weight with the same habits. The improvement in the health of dieters was found in the study to have no relations with the amount of weight which they lost. The article therefore proposes mindful eating, which involves paying attention to the signs of hunger and fullness. This strategy is measurable as those practicing mindful eating maintain stable weigh over time and spends very little time thinking about food.

**An example of inductive reasoning in which the sample is inappropriate and an explanation of why it is inappropriate**

*Daily Self-Monitoring of Body Weight, Step Count, Fruit/Vegetable Intake, and Water Consumption: A Feasible and Effective Long-Term Weight Loss Maintenance Approach*

<https://www.ncbi.nlm.nih.gov/pubmed/?term=Daily+Self-Monitoring+of+Body+Weight%2C+Step+Count%2C+Fruit%2FVegetable+Intake%2C+and+Water+Consumption%3A+A+Feasible+and+Effective+Long-Term+Weight+Loss+Maintenance+Approach>

The article aids in daily body weight monitoring, vegetable intake, and step count and water consumption within in 12 months. A group of senior citizens with the weight of about 67 and body mass index of about 29.2 and an average age of about 63 will participate in the trial. The individuals will be asked to record their weights, vegetable intake, and their step count. The experimental group will be instructed to consume about 16 fl oz. water before the three daily meals while the control experiment will not be subjected to this. The statistical outcome analysis will show weight loss over time. The research proposal concludes that the intervention was feasible because of the adequate time allowed for the study. The success of the feasibility of this proposal will be determined by its ability to beat the time constraint and the response rate.

**An example of inductive reasoning in which the sample is inappropriate and an explanation of why it is inappropriate**

"They all work...when you stick to them": a qualitative investigation of dieting, weight loss, and physical exercise, in obese individuals.

<https://www.ncbi.nlm.nih.gov/pubmed/19025661>

The qualitative study explored how people with obesity attempt to lose weight through various means such as dieting and physical exercise. 76 people with obesity (individuals with a BMI of over 30) were interviewed and results analyzed in Australia between 2006 and 2007. The analysis suggested that most of the attempts to lose weight through dieting and physical exercise failed. The research suggestion that foods were not useful for weight loss is not convincing since the research did not provide a practical example where use of foods did not respond to weight loss. The study results are not reliable since the targeted respondents did not fully give their responses and therefore the generalization is weak. The study also relied on verbal response; therefore, the response could have been affected by bias. The argument was inductive since because it is said that physical exercise usually results in weight loss. The sample selected however failed to prove this belief.

**An example of deductive reasoning**

*Ideal Body Weight*

<https://www.wellness.com/reference/health-and-wellness/ideal-body-weight>

The article gives a chronological sequence of how IBW was arrived as a measure of the dosage for medication for patients. The method evolved from Broca index in 1891 to Devine formula in 1974 and later Robinson modified it to be used in calculations for medication. The article has received substantial setbacks since when most organizations and medical institutions disregarded the method as a measure of dosage for various medications. One primary reason for this is the fact that the formula does not cater for the nutritional needs of the patients. It however has a positive feedback that the method is used for clinical diagnosis of obesity. The article also uses the assumption of what may be accepted as attractive body weight at various heights, ages and sex which makes the article less convincing. It is therefore appropriate that other conventional methods such as the Body Mass Index (BMI) are used. The article is deductive since it is of the argument that an ideal body weight is an appropriate measure of dosage to be given to patients.

**One fallacy and an explanation of why the reasoning is faulty**

*The Paleo Diet: Lose Weight and Get Healthy by Eating the Food You Were Designed to Eat*

http://www.citeulike.org/group/5175/article/2775227

The main argument from this article is that it is only the Paleo diet that we are meant to eat and not any other. The report also suggests that if one wishes to lose up to 75 pounds in six months and still maintain good health, then they should strictly follow this diet. Apart from this article’s suggestion that suggests that Paleo diet has been proven a solution to issues of weight loss, there is not any other article that suggests the same thing. The fallacy in this article is that the article generalizes the Paleo diet as the only diet designed for weight loss just because the method has worked for a certain number of individuals in the past. Nutritionists such as Kresser suggested a diet for weight loss without involving the Paleo diet. This is contrary to articles that suggest other methods such as low-carbohydrate diets as a method of ensuring weight loss. The article is, therefore, not convincing to the audience.

**Another fallacy and an explanation of why the reasoning is faulty**

*Involuntary Weight Loss in Older Outpatients: Incidence and Clinical Significance*

https://onlinelibrary.wiley.com/doi/full/10.1111/j.1532-5415.1995.tb05803.x

The article suggested that involuntary weight loss is most common among the older outpatients. The main argument of the article is that involuntary weight loss is significant in determining the mortality rate of a place. The degree of involuntary weight loss was established at about 13.1%. The results of the study also suggested that the mortality rates were slightly higher in the two years of the study. There was, however, a fallacy committed in the use of male outpatients to generalize. The old female counterparts were omitted in the study. Another error committed is that weight loss does not necessarily lead to a rise in mortality as there is no clear relationship between them. The article does not convince the audience that voluntary weight loss leads to a rise in mortality hence it should not be used as a measure for the same.

**A visual argument and a description of why that information is best communicated visually**

*Juxtaposition as Visual Argument: Health Rhetoric in Super Size Me and Fat Head*

<https://www.tandfonline.com/doi/abs/10.1080/00028533.2014.11821815>

The article argues that the Super-Size Me (SSM) and Fat Head (FH) are examples of documentaries that make arguments about obesity in America. The article argues that filmmaker's body serves as the site to test claims about causes of obesity. While SSM emphasizes the impact of the environment in causing obesity, the FM emphasizes the individual (agent) as the cause of obesity. The SSM argued through juxtaposition to disregard the conversational argument which questioned the impact of fast foods on health. On the other hand, FH used the analogy to reject visual as grounds for health arguments. The information contained in the article is better viewed visually with one documentary compared to the other so that the audience can see which among the theories can be seen to cause obesity. The article is therefore reliable for the analysis of the two theories.

**A misleading visual argument and a description of why it is misleading**

*The impact of food advertising on childhood obesity*

<http://www.apa.org/topics/kids-media/food.aspx>

This article suggests that there is a strong correlation between food adverts and children eating habits. Studies indicate that what the children watch have the direct impact on what they eat. Studies suggest that 20% of the young population is obese and the obesity rate is on the rise among preschool children. For this reason, food advertisers are taking the advantage the situation by encouraging the consumption of junk foods among the children instead of focusing on the healthy eating habits in the young generation. It is, therefore, right to suggest that visual arguments in children foods advertisement is misleading and should be avoided. Despite the fact that there are rules as to the dissemination of advertisements targeting children, the rules are usually disregarded. Lack of emphasis on the ethical standards on advertisements has ensured that food advertisers give children misleading information.

**A link to a multimedia argument and a description of how the argument employs several modes of communication.**

*Preventing Childhood Obesity: Health in the Balance*

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1281327/>

The article focuses on the mass-media interventions that are aimed to address and prevent obesity. The report recognizes the need to teach the broader population to have the support of the public on making policy changes that are aimed at reducing risks of obesity. The article recognizes that this initiative can only be arrived at using the mass media. The committee that was responsible for the intervention is recognized as the role of national multimedia campaigns for the prevention of obesity among children and the youth. The media that was used included print media, press briefing, and outreach that focused on obesity issues. It also called upon the advertising agencies to incorporate to provide role modeling about obesity in their programs. The committee encouraged such organizations to take up their multimedia strategies such as electronic, print and web-based campaigns to address the problem of obesity. It also recommended that the campaigns should be done in collaboration with other federal departments and independent experts to bring about policy changes that will prevent obesity among children and youths.

**A case study and whether the case study is good evidence or not**

*Case Study: Weight Loss Leads to Cost Savings and Improvement in Metabolic Syndrome*

<http://spectrum.diabetesjournals.org/content/18/2/77>

 This article is an example of a case study article, which seeks to investigate a particular element of a study. The article focuses on a subject of study named C.Y. C.Y is suffering from two types of diabetes and is overweight. The subject is put under weight reduction treatment plan. The aim of the experimental study is to ascertain whether losing weight enhances cost saving and facilitates recovery in metabolic syndrome. The patient is put under investigation for a specified period. At the end of the experimental studies, the researchers view the progress of C.Y and the interrelation of his condition with two elements of studies. The authors review the literature concerning diabetes and the interventions that have been taken. The case study concludes by confirming the hypothesis of the study. As such, this case study provides good evidence that is scholarly accepted. The article offers concise, verifiable, and credible evidence that convincingly illuminates the study parameters and the projected objective of the case study.

**An Average with Range Specified\* Comment on whether outliers are included or omitted**

*Long-term weight-loss maintenance: a meta-analysis of US studies*

<https://academic.oup.com/ajcn/article/74/5/579/4737391>

In this article the researchers were conducting a study incorporating three different randomized studies to investigate how treatment plan for people suffering from obesity works in the long term. Some of the parameters that were investigated include the weight of the study sample at the beginning of the treatment plan and the weight at the end of treatment plan. The study involved the two genders. Evidently, each study subject had different weight. The researchers calculated the average weight of both males and female. The average weight of male was found to range from 100kg to 148kg, while for females the average weight ranged from 74kg to 121kg. The studies also calculated the average weight loss of both males and females. The average weight loss for male ranged between 6.2kg and 44.2 kg, whereas for females, the average weight loss ranged between 3.5kg and 37.9kg. In this study, the outliers were omitted as all the data was within the specified range.

**An Average with Median Specified\***

A Different Weight Loss Experience: A Qualitative Study Exploring the Behavioral, Physical, and Psychosocial Changes Associated with Yoga That Promotes Weight Loss

<https://www.ncbi.nlm.nih.gov/pubmed/27594890>

In this study, the authors depend on the average of various elements of studies to make conclusion. For the authors calculated the time taken for the interview to be complete for each participant. The authors specify the median (m=26.6 ± 9.5 mins). The range for this set of data is 9.3 ad 45.1 minutes. Another specified parameter is the time taken for follow up interview with the average equaling 12.6-±5.6 minutes. The authors also calculate the average age of the participants. The average age of the participants was found to be 56.6 (± 9.4) years. In this study, one of the concept that is explored in detail as it relates to weight loss is the BMI, which was calculated to have an average of 27.1 ±5.7 with a range of between 17.1 to 41.8.

**Variance or Standard Deviation**

*Diet or Exercise Interventions Vs Combined Behavioral Weight Management Programs: A systematic Review and Meta-Analysis of Direct Comparisons*

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180002/>

In this article the researchers focus on various parameters of studies including weight, BMI, and time spent in taking the weight management program. In the calculation of the findings, the range and mean of the parameters are computed. The authors also use the standard deviation in the calculation. The possible reason for the use of the standard deviation is to allow incisive understanding of the correlation of the study elements. In this study, the independent variable is the weight loss; the dependent variables are the “diet or exercise interventions” and “combined behavioral weight management programs”. As the authors try to investigate the two methodologies in relation to weight loss, calculating standard deviation and variance provides a plausible reason of determining the best technique of losing weight for individuals are overweight.

**Margin of Error**

*Perceived Barriers to Weight Loss Programs for Overweight or Obese Women*

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963684/>

In this article the authors aim at exploring issues impeding the efficacy of weight loss programs. Due to the nature of this studies, the authors define margin of errors, which occur when calculating the findings. In making concrete conclusions based on the study findings, the researcher acknowledges the existence of biases. The biases have a direct impact on the verifiability and accuracy of the results. As such, the sub set of data also includes the margin of errors. Inclusion of margin of errors in the study aims at authenticating the results and providing a room for defense in case another team of researchers conducts a similar study. In conducting a similar study, it is expected can use the article as a part of literature review. As such, the notable disparities in the results guide the researchers by ensuring that they try as much as possible to reduce the margin of errors underscored and the results of their studies is accurate to the highest degree.

**An article which mentions significance and comment on whether the significance is or is not important**

*Systematic review of long-term weight loss studies in obese adults: clinical significance and applicability to clinical practice*

<https://www.nature.com/articles/0802982>

The research analyses the long-term effects weight loss in obese people. The primary aim of the research is to discover the essence of weight loss on clinical practice. The author postulates that the clinical significance will enable the medical practitioners to devise ways of improving health treatment on the obese adults. Indeed, the term significance is important in this context. Most of the reviewed articles have focused on various subjects that are related to data computations. However, the significance of studies launches a new trajectory of thinking and motivation. The evidence that is obtained in the study is an important tool that can be used by health officers to review medical practices that best suits the needs of overweight individuals. With such formulation, the medical interventions will be effective in treating different patients globally. Conclusively, the research that has far-reaching effects.