BODY

The Debate Surrounding the Body Positivity Movement

Featuring Lizzo and Ashley Graham

CAN YOUR BODY SHAPE TELL YOU YOUR HEALTH?

MEET THE FACES OF THE MOVEMENT.

DO YOUR GENES DETERMINE YOUR JEANS SIZE?

CONTENTS

WRITTEN BY KAILA DANIELS, JISEL MIRANDA, AND ALYSA PELAK

FRIDAY

FEBRUARY 2020

CONTENTS

FRIDAY

FEBRUARY 2020

EDITOR'S NOTE

Dear Reader,

With the prevalence of body positivity within the media, we came into this project aware of the influence of the movement, but with many questions regarding its impacts. We knew many debates existed regarding the validity of the movement, the impact on the perception of obesity and health within the United States, and the representation of bodies. At the same time, we found this movement much needed with the strong perceptions of beauty that influence each and every one of us and have had a profound impact on our lives. By diving deeply into this movement and analyzing it from each angle, we hoped to gain an understanding and perspective on its influence and form our own opinions about what the positives and negatives of the movement are. We want our readers to be able to take this same journey- an exploration of the body positivity movements leading to the formulation of their own perspective.

At the conclusion of our research, we have changed our perceptions of the body positivity movement. It is more than a social media trend, it is a powerful social movement with significant biological implications. Additionally, there is room for improvement with the lack of representation and the heavy focus on an individual's appearance.

After you finish reading this magazine, we hope that you gain a degree of knowledge on the topics of body positivity, metabolic health, and the correlations between body image and social media. This knowledge will then allow you to decide where you stand on the debate on The Body Positivity Movement. *Body* Magazine is not a persuasive magazine. This magazine has the pure goal of informing the reader of the connections between the societal and biological sides of The Body Positivity Movement and where these two sectors intersect, collide, and coincide.

Sincerely,
Jisel Miranda, Kaila Daniels, and Alyssa Pelak

An overview of the body positivity movement

https://specials-images.forbesimg.com/imageserve/1227404004/960x0.jpg?fit=scale

What is the Body Positivity Movement?

Body positivity refers to the belief that all people deserve to have a positive body image. The goals of this movement include promoting the acceptance of all bodies, building the confidence and acceptance of all people, and addressing unrealistic body standards. People look to the body positivity movement to challenge how society views the body (Cohen, 2020)

Why is there debate surrounding the movement?

While the body positivity movement is meant to create a platform of acceptance for all kinds of bodies, many individuals do not agree with all aspects of the movement. First, many claim that the movement encourages unhealthy lifestyles and glorifies obesity (Cohen, 2020). Other criticisms acknowledge that the body positivity movement fails to include and represent all bodies, genders, races, and abilities. Finally, the content associated with the movement still heavily focuses on appearance, maintaining our societal focus on looks (Cohen, 2020).

How do YOU see body positivity?

A collection of responses from a survey of our readers

How would you define the movement?

"It breaks down 'typical' beauty standards." It is "celebrating", "empowering" and "normalizing" all body types, shapes, and sizes. It promotes representation and acceptance of all bodies, especially in the media. It promotes feeling "comfortable in your own skin. It is "rejecting the rampant stereotypes about acceptable or attractive bodies."

Is any group excluded from the movement?

Many individuals responded "no."
Other individuals answered men, people of color, people with disabilities, thin women, older Individuals, non-binary individuals, trans people, and "those who fit societal standards of beauty".

Common Perceptions of society's Ideal body type

"Unattainable without surgery or constant diet & exercise", "constantly shifting", "curvy, white, but tanned", "tall, skinny, and fair", "fit, toned, and lean bodies" "for men, lean and muscular", "skinny bodies", "slim thicc", "smooth, light skin, and free of Imperfections"

Personal Perceptions on what an Ideal body is:

It is "characterized by health", "strong, healthy body", "one Inhabited by a person who is happy in it", "a healthy mind, body, and soul", "there is no ideal body", "a body you are comfortable with", "toned body", "I have different ideals for myself and others...everyone should strive to feel good...I unfortunately idealize thinness"

by Jisel Miranda

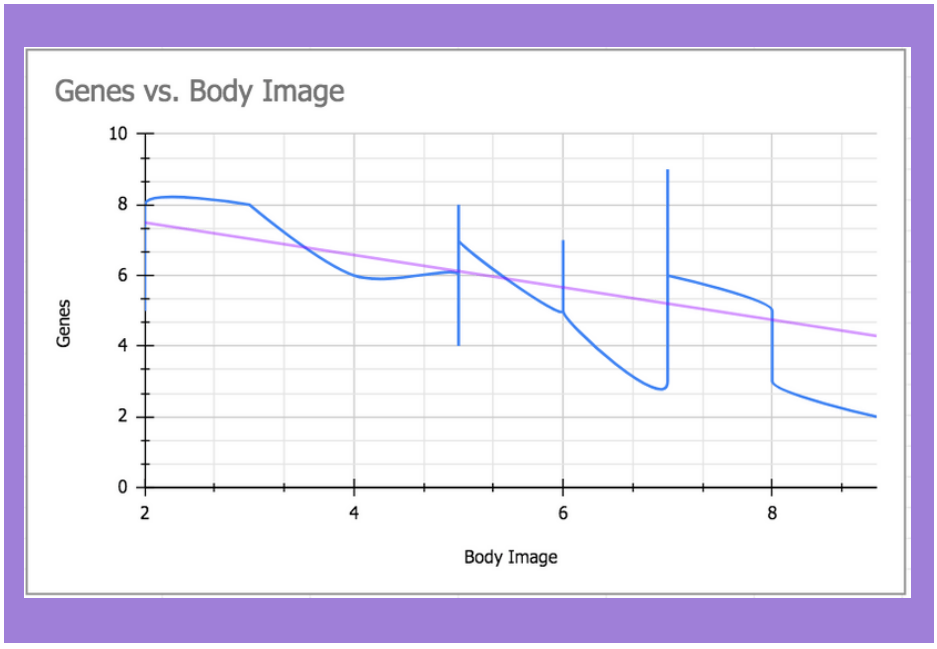
In order to discuss issues surrounding the body positivity movement, it is important to analyze common perceptions surrounding the movement. We surveyed participants anonymously and analyzed the results. Please see "Supplemental Information" section (Page 29) for brief information regarding the demographics of this survey.

The spread of data regarding how often people see body positivity memes gives us a baseline for how much experience people have with body positivity themes. There is a widespread familiarity with the body positivity movement in media with a peak at 7.5 (out of 10) which implies the average of individuals being surveyed are relatively familiar with body positivity images and messages.

While more data is needed, there is an emerging trend that those who have a more positive self-image believe that genes have less of an impact on genes size & weight.

In the survey question that asked "How do you feel about your body image most of the time?" that average response was 5.625 which indicates respondents have a neutral viewpoint on their body image. Likewise, when viewing the collective data for the question "To what extent do genes impact your body size and weight?" 5.833 which also Indicates there is a neutral viewpoint on the Impacts of genetics on body weight.

Initially, there was no obvious trend present, however after comparing individual responses a trend appeared. Those who answered either a 7 or 8 on the genetic impact question, also on average answered 2-4 for their body image self-confidence. As displayed in the line graph below, there is a slight trend of those with a negative body image believing genes are more impactful for indicating weight. Those with a relatively neutral body image (ranging from 5-7) had diverse beliefs about whether genes are significant in weight management. While no direct correlations can be made due to the limitations of this survey, these trends open room for discussion regarding individual's perceptions based on their lived experiences involving body weight.



In this figure, higher scores on the X-axis are associated with a more positive self-assessed body image and lower scores representing a negative body image. On the y-axis, higher scores represent a stronger belief that biology (genetics) Impacts body size and weight, while lower scores represent no Impacts of genetics on body size and weight.

HISTORY AND TIMELINE

by Kaila Daniels

1967 — Publication of Lew Louderback's Saturday Evening Post essay "More People Should Be Fat" kicked off the movement of fat acceptance.

1969 — New York engineer Bill Fabrey created the National Association to Aid Fat Americans (known today as the National Association to Advance Fat Acceptance (NAAFA)) due to his frustration with society's treatment of his fat wife, Joyce.

1973 — California feminists, also angry with the treatment of fat people, formed the Fat Underground. What NAAFA called Fat Acceptance, they called Fat Liberation. In 1973, they released the Fat Manifesto. The Fat Manifesto demanded equal rights for fat people and declared diet culture to be the enemy.

EARLY/MID 1980S — Fat liberation began to spread across the globe and the London Fat Women's group formed

1990S — Fat activists began picketing in front of the White House, staging protests in front of gyms with fatphobic advertising, and dancing alongside floats in San Francisco's Pride Parade

1996 — The term "body positive" emerged. Connie Sobczak and Elizabeth Scott, well-known feminists, created an organization called The Body Positive. The Body Positive organization has the mission of making "a better world for women to live in with fewer standards to follow from social media". Their site offers resources and educational materials intended to make people feel good about their bodies.

EARLY 2000S — The internet became the main place for body shame and body love. Fat activists moved from message boards to chat rooms to AOL groups and finally to platforms such as Tumblr and Instagram. The new generation was spreading a concept known as Body Positivity

The Body Positivity Movement, in its current form, began to emerge in 2012.

ALL TIMELINE DATA SYNTHESIZED FROM THE FOLLOWING SOURCES:

ALPTRAUM, L. (N.D.). A SHORT HISTORY OF 'BODY POSITIVITY'. RETRIEVED FROM HTTPS://FUSION.TV/STORY/582813/A-SHORT-HISTORY-OF-BODY-POSITIVITY/HISTORY OF BODY POSITIVITY. (2018, FEBRUARY 26). RETRIEVED FROM HTTPS://SITES.PSU.EDU/HALEPASSIONBLOG/2018/02/26/HISTORY-OF-BODY-POSITIVITY/THE HISTORY OF THE BODY POSITIVITY MOVEMENT. (2020, NOVEMBER 24). RETRIEVED FROM HTTPS://WWW.BBC.CO.UK/BITESIZE/ARTICLES/Z2W7DP3

DEFINITIONS OF HEALTH

By Kaila Daniels

With the popular belief that bodyweight and size influence health outcomes for adults, does the phrase "all bodies are good bodies" undermine the importance of metabolic health? Well, in order to answer that question we must identify the universal definition of health. That is if one exists. Classically, the term health was disease-focused and centered around the absence of disease. In 1948, the World Health Organization defined health as "a state of complete physical, mental, and social wellbeing and not merely the absence of disease and infirmity" (Brussow, 2013). Indeed, it is fair to say that in order for someone to be considered healthy they should not suffer from any disease, but health can not be diminished down to the absence of disease or infirmity. So, to some, this 1948 idea of health is 1) outdated and 2) incomplete. Yet even in the current day, the oxford dictionary defines health as the state of being free from illness and injury.

Following this definition of healthy, can an individual be overweight and simultaneously healthy?

According to a research article on metabolically healthy obesity, there are two classifications of obese people, as there are people with obesity who have not experienced the poor metabolic effects of excess body fat. The two categories are metabolically healthy obesity (MHO) and metabolically unhealthy obesity (MUO) (Smith, et.al, 2019). Conversely, Dr, Jorge Plutzky, the director of preventative cardiology at Harvard-affiliate Brigham and Women's hospital, warns the public that the idea of being "fat and fit" is easily misperceived. The longer someone is overweight, the shorter that their life can potentially be (Harvard, 2018). This is a clear example of how the disease-centric definition of health can skew thoughts pertaining to what it means to be healthy.

About 50% of people with obesity are metabolically healthy when healthy is defined as the absence of a metabolic syndrome, whereas only approx. 5% are metabolically healthy when healthy is defines as the absence of any metabolic syndrome components and normal insulin sensitivity (Smith, et.al, 2019).

Importantly, there are newer medical definitions that emphasize the capacity of a healthy body to adapt according to changing internal and external circumstances. According to a 2006 article in the Croatian Medical Journal, there are three more recent types of definitions of health that are possible and are used (Sartorius, 2006):

1) Health is the absence of any disease or impairment.

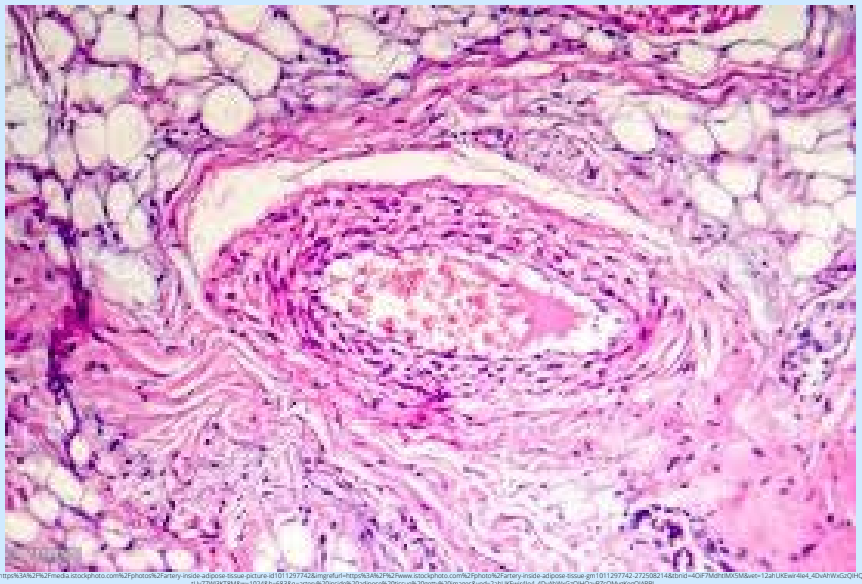
2) Health is a state that allows the individual to adequate cope with all demands of daily life.

3) Health is a state of balance, an equilibrium that an individual has established within themselves and between themselves and their social and physical environment.

These findings serve two purposes. On one hand, these three definitions provide more accurate alternatives to the commonly used appearance, size, and BMI indicators of health status. But on another hand, this article displays the need for a paradigm shift for health, disease, and health promotion. None of the methods above give a concrete, non-subjective definition of health that is capable of being measured across individuals of different groups, backgrounds, ages, able-status, etc.

HEALTH IS MORE THAN WHAT YOU EAT

WRITTEN BY: KAILA DANIELS AND ALYSSA PELAK



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NOT ALL FAT IS CREATED EQUAL

Metabolic health goes far beyond the foods that we consume and the weight that displays on the scale. In humans, there is more than one type of adipose tissue (body fat) accumulation, and frankly, not all body fat is created equally. Further, there are varying levels of risks associated with particular types of fat accumulation. Adipose tissue controls the metabolism of the human body through the secretion of hormones, cytokines, proteins, and microRNAs that affect the function of cells and tissues throughout the body (Luong, 2019). There are two main types of adipose accumulation: visceral adipose tissue accumulation and subcutaneous adipose tissue accumulation. These two types of tissue express different genes involved in insulin resistance and also, the pattern of expression of these genes is different. Moreover, visceral adipose tissue secretes adipokines which are proteins that are associated with pathologies such as obesity and insulin resistance (Szablewski, 2018). These proteins can increase the risks of serious metabolic syndromes and cause lipotoxicity (a metabolic syndrome that results from the accumulation of lipid intermediates in non-adipose tissue) in the peripheral tissues. The major sites of visceral adipose tissue deposit include areas surrounding the heart and the intraabdominal organs (Luong, 2019). In simpler terms, this dangerous form of adipose accumulation can also be referred to as central obesity (obesity in the mid-section). Visceral abdominal obesity reduces the life expectancy by ~8 years.

Understanding the regional distribution of adipose tissue is important in relating obesity to an individual's metabolism of glucose and lipids. Referring back to the previous point that not all body fat is created equally, it is medically wise to value the distribution of body fat in a person rather than diminishing them down to a number

"I can't eat/drink that because I'm going to get fat"

on a scale or a BMI. A research study evaluating the several phenotypes of human obesity found that a waist circumference greater than 100cm was likely to be associated with disturbances in lipoprotein metabolism and in plasma glucose-insulin homeostasis (Wajchenberg, 2000).

So what does this mean for body image and its relation to metabolic health?

Yes, obesity and high levels of fat accumulation are risky. But there is a huge problem in the urgency to deem bodies that don't fit society's ideal as unhealthy. The described categorizations of adipose tissue accumulation exhibit that body composition and fat distribution have vital implications for overall health. A fullller face may not serve as many health risks as a fuller midsection.

And what does this mean for popular reactions to the advocacy of larger body sizes?

Critics often like to push weight loss as the answer to health, yet studies have shown that after severe weight loss, subcutaneous fat at the abdominal level is lost in greater proportions than visceral fat (Wajchenberg, 2000). Rather than counting calories and spending endless hours on the treadmill, special attention should be given to the specific micronutrients that enter the body. Soluble dietary fiber, manganese potassium, magnesium, vitamin K, folic acid, and pantothenic acid were 7 micronutrients found to be significantly negatively associated with change in visceral fat accumulation (Ozato, et.al 2019). These micronutrients, which are abundant in vegetable diets, contribute to the suppression of visceral fat accumulation. On the contrary, monounsaturated fat was found to be significantly positively associated with the accumulation of visceral fat. These observations are useful because properly composing and proposing health diets can cause substantial decrease in metabolic syndrome risks.

WHAT ABOUT GENETICS?

In addition to biological variations in types of fat tissue, genetic contributions can also impact an individual's body weight and size. Genes are protein coding formulas within human cells that are passed on from parent to offspring. The proteins they synthesize are responsible for functions of cells and the body. Genes are made up of a sequence of alleles, alternative forms of the code, that impact the production of the protein and, therefore, the function of the body. Since genes are hereditary, each person has a unique set of genes that impacts the body's metabolism, adipose tissue type and distribution, and many other factors that impact both body size and weight (Chami et al., 2020).

One gene, called the MC4R gene, is involved with initiating feelings of satiety. This gene encodes a receptor for leptin, a hormone sent from a brain region called the hypothalamus that circulates in the bloodstream and initiates feelings of fullness. (Kleinendorst et al., 2020). When individuals have variants in the MC4R gene that reduce the number of leptin receptors or deem the gene entirely unable to encode the protein, the hormone is not recognized and the body is not told that it is full. This can lead to overeating and

obesity. Research has revealed that these kinds of variants may be much more common than previously anticipated (Kleinendorst et al., 2020). In particular, they have identified 11 variants with significant impacts on obesity, with up to a 20% difference in the rate of obesity between those that do and do not have the variant (Chami et al., 2020). Another significant gene is the UCP1 gene. This gene is involved with energy metabolism in the human body. Two variants, rs1800592 and rs 3811791, have been associated with increased BMIs (Chathoth et al., 2018). There are potentially hundreds of genes that can impact body weight by affecting nutrient intake, body fat stores, dietary and metabolic functions, fat regulation, and nutrient turnover and thermogenesis (Martinez, 2000). However, except for extreme cases, no one gene on its own is responsible for an individual's body. For example, the MC4R gene previously mentioned is a significant influence on body weight, but it still only changed rates of obesity by 20%. Research shows that body mass index is "highly heritable," but it is the compounding impact of many genes working together and altering the body's processes in different ways that can lead to body weight and size (O'Rahilly & Farooqi, 2006).

Does this mean that genes are responsible for variations in weight and size?

Genes play an important role in the determination of weight and size. The proteins they code for can impact metabolism, fat distribution, and many other factors. However, genes alone do not cause this variation. The environment is also important in determining weight and size. For example, what an individual eats, whether they live an active life, the availability of food, and many other environmental factors can impact the individual's body and weight. We cannot separate genes and environment and deem one or the other responsible for weight and size. Instead, it is an important combination and interaction between the two. An interesting example is that some individuals have certain single allele switches called single nucleotide polymorphisms that can lead to an increase in body weight. But, there are not activated unless the individual experiences changes associated with low socioeconomic status (Korthals, 2011). Another important impact is epigenetics, alteration on the genes separate from the genetic sequence itself. The code itself is not changed, but different proteins can bind and unbind regions causing an increase or a decrease in the reading of that code, and therefore creation of the proteins encoded by the genes (Puiu et al, 2012, Price, 2011). Activity, diet, behavior, stressful circumstances, and living situation all cause an impact on epigenetics and therefore change which proteins are being created and at what amount.

"Ugh! I ate way too much today"

"I'm so disappointed in myself because I gained a few pounds"

What does this mean for perceptions and stereotypes based on body size?

"Overweight" individuals are often stereotyped as lazy and their size is blamed on them as a result of their behaviors. Research that has shown that genetics do have an impact on size and weight has allowed some of the stigma to be removed from these individuals. There is always some amount of our size and weight that are entirely out of our control and are deemed by what is passed onto us by our parents.

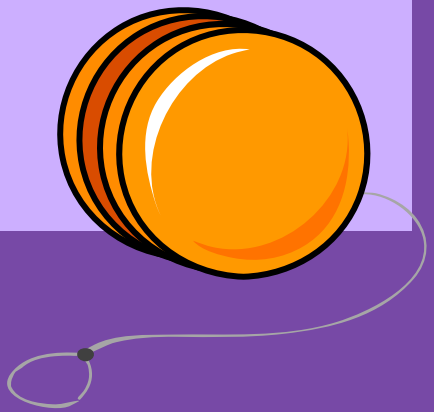
CASE STUDY: YO-YO DIETING

BY: ALYSSA PELAK

It has been taken as fact that higher weights are correlated with health risks that lead to higher rates of cardiovascular disease, diabetes, and other serious health conditions. But, is this really the whole story?

Studies have shown that there may be an important factor missing from this conversation- the impact of “yo-yo dieting.” Yo-yo dieting is also known as weight cycling and describes the repeated loss and gain of weight that frequently occurs with dieting. Individuals start an unreasonable diet, lose a significant amount of weight, realize their diet is unsustainable, give up, then gain all of their weight back. Soon, due to the strong influence of diet culture, they will likely start a new diet and the cycle will continue. These major weight fluctuations are indubitably unhealthy for the body and are thought to potentially contribute largely to the observed increased health risks for individuals with higher weights. So, these increased risks may not be due entirely to weight itself, but due to the weight fluctuations resulting from diet culture and the pressure on people of higher weights to lose weight.

An intriguing study by Bacon and Aphramor showed a strong association between weight cycling and hypertension. It evaluated the blood presusre of obese women, classified by BMI, who dieted and those who did not diet. It found that those who dieted had significantly higher blood pressure when compared to those who did not which is believed to be tied to weight cycling (Bacon & Aphramor, 2011). Further literature has shown that weight gain following weight loss induces quicker and more significant adipose tissue growth (Strohacker et al., 2009). The literature went on to conclude that weight cycling might actually have a more significant negative impact on health than just maintaining the overweight or obese classification (based on BMI) (Strohacker et al., 2009). Further research needs to be done in order to decipher what impact weight cycling has when compared to obesity itself and to analyze the exact physiological impacts. However, one thing is certain, we cannot continue to believe that there is a clear, linear relationship between weight and health risk.



Too Covered on the Cover?

by Jisel Miranda

Popular magazine “Vouge” had their first plus-sized model Ashley Graham on the cover of their March 2017 issue. The title claimed “The Beauty Revolution. No Norm is the New Norm.” While this ideology represents the stance of the body positivity movement that is commonly praised, many individuals had critiques about this cover. While different ethnicities were displayed, all of the models were of relatively equal height, facial structure, and body size aside from Ashley Graham. The most notable critique was the unique pose of Ashley Graham in which she covered the top of her leg. In response to the controversy, Graham stated “I chose to pose like that...no one told me to do anything” (Murray 2017). This emerges the question of who gets to decide what qualifies as being inclusive. Having the model is not enough, they need to be presented in a certain way as well. Also, acknowledging how a photoshoot operates, while Graham may have posed like this for one photo, the art director or the photographer had the opportunity to step in and change the composition to reflect more uniformity among the models. In the end, it brings up the question of how to introduce diversity and begin normalizing. Critique can be positive but when critiques become gatekeepers to the movement will this hinder progress rather than promote it?

AS SEEN ON TV

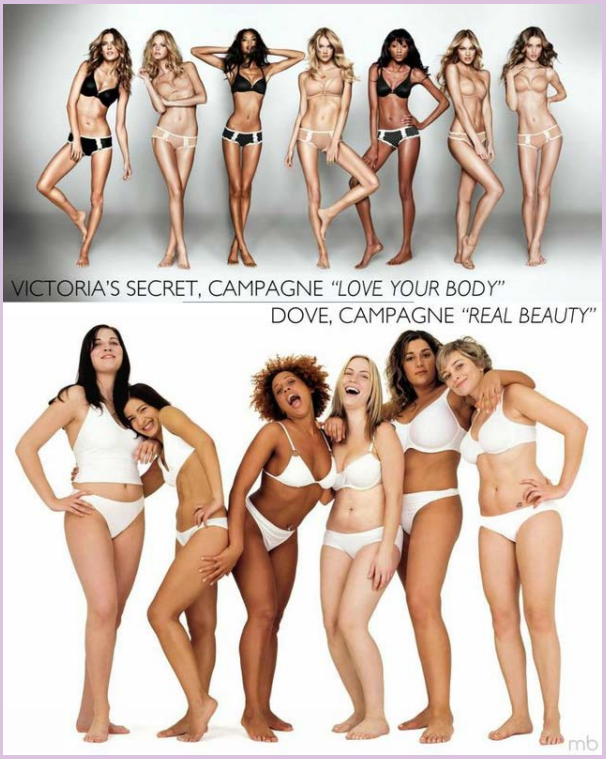


Photo editing is prevalent in everyday American lives, from editing on social media posts to photoshop touch-ups on a major beauty campaign. While this was the norm in the United States, some companies have been taking a stand. The first largely cited large-scale campaign to do so was the Dove’s Real Beauty Campaign in 2004 which was praised for this wide range of body types without editing. The ads featured individuals of a range of ages, races, and body types. This ad was compared to ads like the Victoria’s Secret “Love your body” campaign to highlight the influence the campaign has made in the body positivity movement and calling out brands who do not do the same. The Dove Campaign helped to open doors for future efforts of no photoshop and the display of more inclusivity and diversification.

Photoshop or Fine

by Jisel Miranda

Around the world, there are different perceptions of photoshop. In France, any advertisements that have been Photoshop-edited or otherwise digitally enhanced to make a model appear thinner must feature a clear label (Held 2017). The label must be prominent-covering at least seven percent of the ad space-and feature a warning that the image has been digitally distorted (Gladstone 2016). Similar regulations have also been put in place in the UK and Israel which overall aim to regulate misleading advertisements in the cosmetic and beauty industry. While these regulations may seem like a solution to negative body image caused by photoshop, when individuals were surveyed in response to the photoshop warnings in study conducted by Ahn et al., photoshop had a negative impact on self-esteem and individuals still wanted to resemble the models in these images (Ahn 2019). In other words, the labels had little to no impact on individual's body image. Additionally, in Bromberg et al. individuals were surveyed they found diverse models led to more body satisfaction than warnings on photoshopped images (Bromberg 2019). This data suggests photoshop regulation laws are not enough instead there should be a greater focus on the representation of a diverse population.

Laws like this were created in order to reduce unrealistic expectations of body image, particularly for young women. Regulations like this have been highly contested in the United States due to the use of photoshop as a form of expression and its risk of impeding 1st amendment rights. Three key court cases that explore these limitations are Valentine v. Chrestensen, Virginia Board of Pharmacy v. Virginia Citizens Consumer Council, and Central Hudson Gas & Electric Corp. v. Public Service Commission of New York (Hunter 2011). The United States had introduced a Healthy Media for Youth Act (House Bill 4925) that would have provided grants to organizations for promoting media literacy and empowerment in children as well as the creation of a task force to promote a positive body image, but it died in Congress (H.R.4925, 2010). If regulations seem out of reach, the United States has the FTC and National Advertising Division which can potentially enact similar photoshop regulations in the U.S. While photoshop regulations are not a necessity and are not a perfect solution for photoshop issues, if the United States does not follow these regulation movements at least for their international campaigns they risk facing fines, bad publicity, and possible economic loss.

"I don't have bunny ears in my cabinet"

With changing beauty ideals and more individual access to photo editing applications it has become easier to create the virtual body image you always wanted. However, this is not enough. Recently there has been a trend of individuals with a condition that cosmetic surgeons Dr. Esho coined as "Selfie Dysmorphia". Selfie dysmorphia is a body-image disorder related to the need to edit one's digital image and a dissatisfaction with their own appearance. With unachievable images looking more achievable through photos some individuals have begun taking their filtered photos to the cosmetic surgeon asking for bigger eyes and smaller chins that are not cosmetically possible. Registered nurse injector Megan Kozak responded to these requests by stating "I don't have the bunny ears in my cabinet". Individual filters have begun shaping our body image ideals and there is no telling how far this may go (Global News 2019).

Worth and Appearance need to get a DIVORCE

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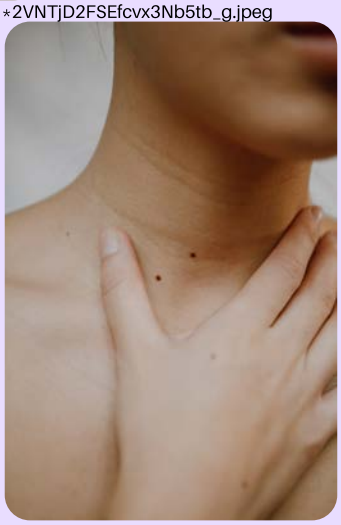
By Kaila Daniels and Alyssa Pelak



"All bodies are good bodies"... Good for viewing purposes or good for health and longevity?

Social media use has become the most popular form of media consumption with 89% of young adults using at least one form of social media every day (Cohen, 2020). On photo platforms, such as Instagram, individuals aim to post only the most perfect, and often overly-edited, images. So, the body positivity movement is praised as an entity that challenges conventional beauty ideals and offers a space to display diverse body types and appearances. There are questions, however, regarding just how beneficial this space is. Claims have been made that the "BoPo", short for body positivity, movement encourages a higher sense of self-worth and self-appreciation. But should self-worth be linked to physical appearance? It is possible that the focus of appearance on Instagram, even in body positive posts, contributes to the hyper-focusing on appearance over other characteristics (Lazuka et.al, 2020). One can argue that, regardless of the type of body that is being posted on such a platform, the concept of posting an image for others to view and comment on gives increased value to an individual's "look". Appearance-based content is very common amongst body-positive posts. According to a review on the current advances and future directions of body positivity on social media, "over 11 million posts [on Instagram] are tagged with #bodypositive and 4 million with #bodypositivity" (Cohen, 2020). Analysis of these posts revealed that more than 30% of the imagery in these posts contained bodies in very revealing clothing and even more posts featured objectification of the body (focus on a particular body part, a sexually aggressive pose, and/or the absence of the head/face). Details such as these support the concerns that the body positivity movement reinforces a preoccupation with appearance over other human attributes. This movement puts immense pressure on women to love their bodies and can create a feeling of guilt for women who do not.

Body Neutrality

The response to these criticisms regarding body positivity is a different frame of thinking called body neutrality. Body positivity is not liberating because it still emphasizes appearance. Body neutrality is all about removing the constant attention to looks and appearances (Cohen, 2020). You do not need to hate or love your body, instead, we can value the function of our bodies without placing overwhelming significance on our appearances. We can use this space to emphasize our other important characteristics. As stated by Cohen, "You are more than your body," and "Your body does not exist to be pleasing to the eyes of others (Cohen, 2020, 1)."

Word Search

By: Alyssa Pelak

A	V	E	C	N	A	R	A	E	P	P	A	T	C
M	I	T	N	O	G	B	E	N	A	E	R	M	C
O	B	A	E	I	P	T	E	C	C	E	O	L	N
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I	T	I	P	P	Y	I	H	Y	K	F	E	I	I
A	I	E	H	E	L	D	C	S	P	E	A	V	E
I	N	W	T	R	E	O	N	S	B	E	Z	T	T

Representation	**Weight**	**Obesity**
Skinny	**Acceptable**	**Diet**
Genetics	**Positivity**	**Healthy**
Body	**Fat**	**Size**
Disease	**Appearance**	**Movement**

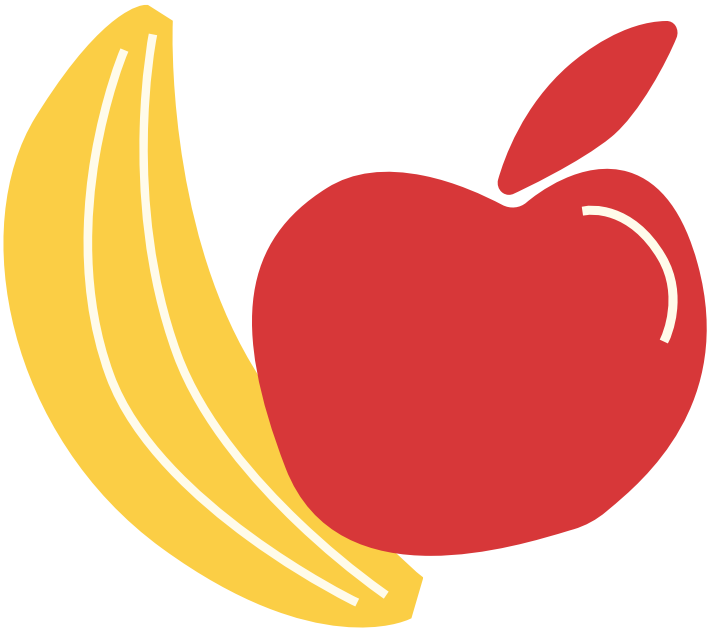
What Makes Me Hungry?

by Jisel Miranda

Insight into the Impacts of Leptin, Ghrelin, and Set Point Theory on Weight.

Get to Know Your Hormones-- The Fundamentals:

Homeostasis regulates everything in our bodies from body temperature to water retainment to the hormones that regulate our energy and hunger. The key hormones in our bodies that regulate how and when we feel hunger are leptin (decreases appetite signals) and ghrelin (increases appetite signals). These signals are directed to the hypothalamus to be processed by the brain. Within the hypothalamus, the lateral hypothalamus (LH) functions as the hunger center and the ventromedial nucleus of the hypothalamus (VMH) is the satiety center (Klein and Thorne, 2016). Now let's take a look at the key players.



Never Feeling Full?

It may be leptin to blame. When there are issues regulating this hormonal signaling, it can lead to leptin resistance. Leptin is a hormone that is released into the bloodstream to relay information about the fat mass/energy in the body (Bernstein 2015). With more adipose tissue, there is more leptin. Leptin resistance leads to an inability to read leptin signaling and therefore the individual is unable to feel satiated. There is currently research questioning the current perceptions of leptin resistance such as whether it can be diet-induced or genetically influenced. A review written by Cui et al. suggests current perceptions of leptin resistance are shifting focus from being environmentally induced to having genetic origins. For instance, they claim resistance to endogenous leptin does not contribute to obesity caused by a high-fat diet (HFD). Additionally, they found that genetic issues such as irregularities with the blood-brain barrier (BBB) and damaged LepRb (a specific leptin receptor gene) trafficking in the hypothalamus have impacted the body's ability to detect leptin. In response, they state mechanisms/molecules such as lepR and leptin transport rate across the blood-brain barrier were identified to propose ideas to resolve this resistance (Cui et al. 2017).

Why do I feel hungrier after losing weight?

Increases in ghrelin can lead to weight regain after dieting and weight loss. In a study by Naatanen et al. on groups of people with obesity in a weight loss program, they monitored two groups consuming either high-satiety foods or lower-satiety foods. They found that post weight reduction, the protein and fiber content of a weight maintenance diet did not impact concentrations of glucose or hormones such as ghrelin, leptin, insulin, and PYY. Most notably they found that after 6 months, leptin and insulin concentration adjusted to the fat mass for a new homeostatic level ("set-point") and ghrelin declined in response to the increase in fat-free mass. This is interesting because there was no evidence of changes in satiety hormones which may imply that the brain is more sensitive to hunger signals than satiety signals. Therefore, after dieting weight gain may occur not because of an issue with leptin, but rather because the ghrelin and other hunger hormones are more easily registered than leptin a (Naatanen et al. 2020).

While there are significant biological explanations behind the feelings of hunger and satiety, it is important to remember there are environmental influences to be considered as well. For example, even when individuals are full, their appetite allows them to continue eating foods that may seem appealing like a cookie. Additionally, environmental cues as a regulator of energy homeostasis. Factors ranging from the time of day to the location you frequent when you eat snacks can influence your eating patterns as well. Hormones play a key role, but we must also care for our environment so we can control how the hormones respond (Bernstein 2015).

What Is Set Point Theory

Many studies involving hormonal levels use the concept of set point theory. Set point theory is the idea that body weight is predetermined. When environmental changes occur, feedback mechanisms in the body return the body back to the predetermined weight. This theory is commonly used to explain body weight control mechanisms in the body. However, the model of homeostasis is highly contested for its simplicity. While there is not one universally correct way to view energy and weight management, here are rising alternatives.

Replacements Theories for Set Point Theory:

Settling-Point Theory: This theory incorporates environmental factors which allows for a larger variability to "set-point" theory. In other words, it maintains the fundamentals of set point theory, but the set point itself can change with environmental changes like socio-economic or cultural factors (Farias et al 2011).

Glucoadipostatic Loop Model: This model links energy stored in fat to energy homeostasis. This theory is similar to set point theory but incorporates glucose and energy expenditure with the adipose tissue to estimate how the body will control the hormonal feedback (Chapelot and Charlot 2019).

Allostasis: This model is a replacement for the homeostasis model. It suggests the body anticipates needs and prepares before they arise. This is mentioned in regards to weight maintenance because it allows the body to prepare and adapt to irregular energy source availability (Chapelot and Charlot 2019).

Surgery and Set-Point

There is an existing stigma with surgery and weight loss. Criticism such as "they didn't earn it" or "they took the easy way out" often circulate those who receive these weight-loss surgeries. However, research shows that these bariatric surgeries like gastric bypass not only remove fat from your body as a temporary solution, but they also have the ability to change the body's natural set point for long-term results. While the exact mechanism through which this occurs is still unknown, individuals indicate that surgeries like Roux-en-Y-gastric bypass (RYGB) have altered the release of hormones like ghrelin and other gastrointestinal (GI) hormones, resulting in changes in hunger and increased satiation after meals (Farias et al. 2011). While this is true of gastric bypass surgeries, other surgeries such as lipectomies have shown to be less effective, with individuals returning to their expected body weight set-point post-surgery (Chapelot and Charlot 2019). Addressing gastric bypass surgery, there are requirements for adults such as at least one obesity-related medical condition and at least six months of supervised weight-loss attempts. This brings up the question of why this method of weight loss counts as an "easy way out" when there is a rigorous process to get accepted?

MEASURING HEALTH

BMI has become the universal measurement of body weight, classifying individuals into categories of underweight, healthy weight, overweight, and obese.

But, is it really an accurate measure?

Aaron Donald won the 2020 NFL Player of the Year award for the third time in his career (tied for the most in NFL history). He is known as one of the most talented and physical defensive players in NFL history. However, with a height of 6' 1" and a weight of 284 lbs, his BMI labels him as "obese." He does not barely fall into the obese classification, for that matter, his BMI is 37.5, with a BMI over 30 classified as "obese."

"Muscle weighs more than fat"

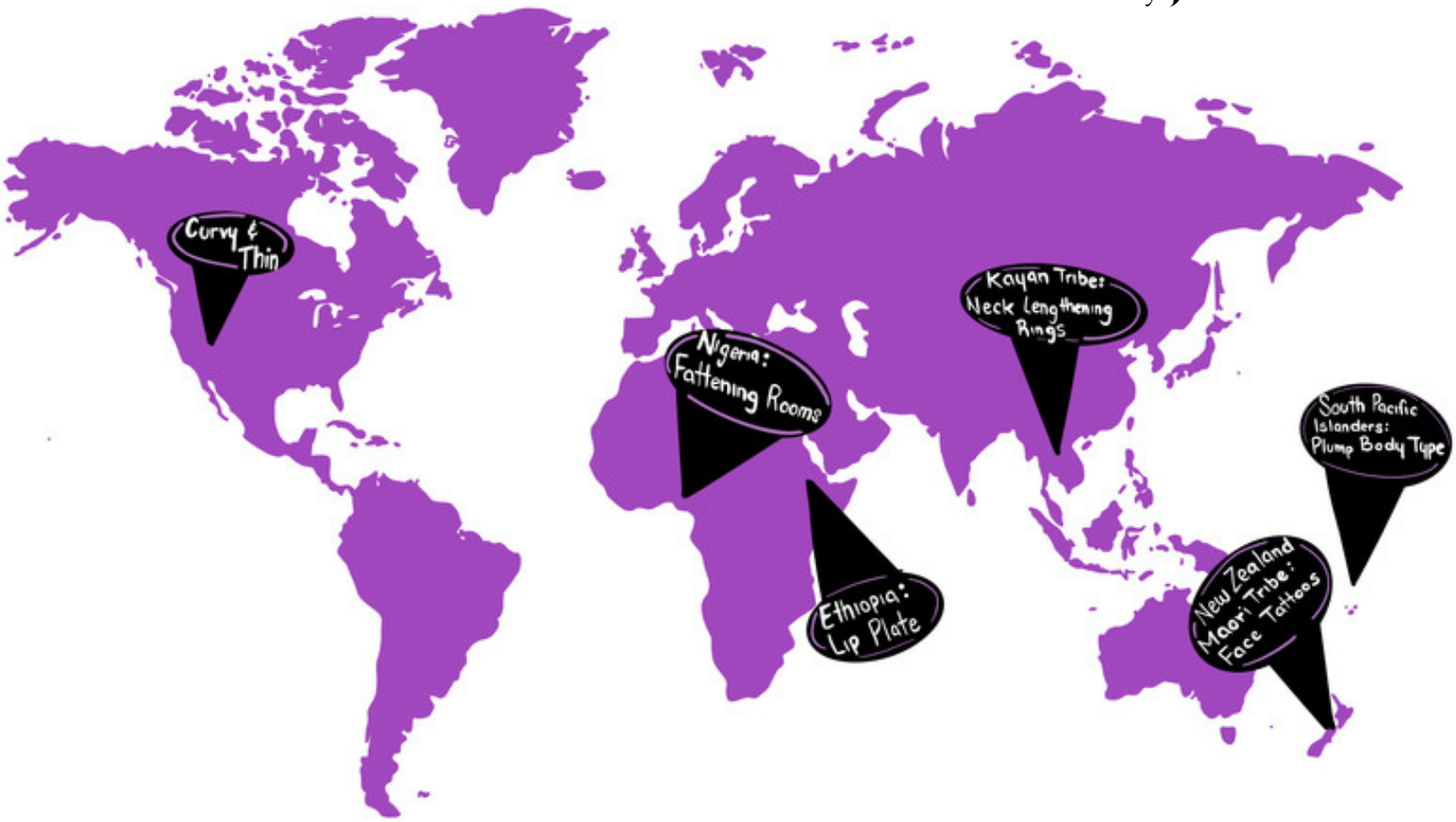
Examples like Donald's show that BMI is inaccurate. BMI is simply weight (kg) divided by height (m)2. That means its entire measurement and all of its conclusions are based on only height and weight. It does not take into account whether that weight is composed of muscle, fat, bone, or another kind of tissue (Burkhauser & Cawley, 2008).

This leads to many errors in classification. As individuals age, their muscle mass decreases while their body fat increases. Often the person's body weight and height do not show these changes, so their BMI remains constant. This means that the estimation of their body fat is significantly less than reality (Rothman, 2008). Another example is high level athletes such as Aaron Donald. We've all heard the saying, "Muscle weighs more than fat." Athletes have high muscle masses which leads to a higher weight and a higher BMI. Often, professional athletes can be classified as overweight and obese and correlated with high body fat which is entirely incorrect (Rothman, 2008). Data has also supported these drastic inaccuracies within BMI; around 32% of women and 41% of men were classified as normal when they actually fall into the obese classification (Rothman, 2008).

"Drastic inaccuracies within BMI"

Location, Location, Location

by Jisel Miranda



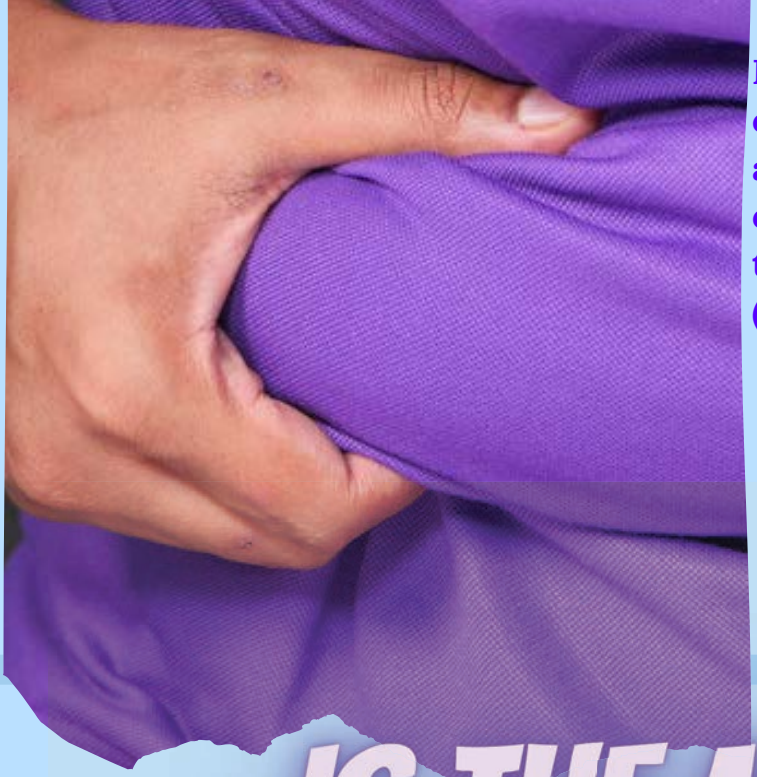
This map represents different body Ideals around the world which includes not only body type but also body modifications. While thin and curvy bodies are valued In the United States, plump body types are associated with high status, authority, and wealth with South Pacific Islanders. Through this analysis, different regions have different understandings of what Is healthy or beautiful and these ideas may change over time.

Protective Community

By some measures, such as wondering whether one is fat or obese, living in a county with a higher BMI is protective of one's mental health. In a study conducted by Kuebler et al., they used yahoo answers and analyzed posts by individuals who were expressing concerns for obesity and related diseases. A slight overall trend was discovered that obese individuals in countries with higher levels of BMI have improved physical/mental health in contrast to countries with lower BMIs (Kuebler et al. 2013). This indicates that the body ideals of individual countries may impact how healthy an individual perceived themself to be.

Beauty by Location and Income

Traditionally there have been significant differences in the body ideals between Western and Non-Western locations. However, recently this trend has been shifting. According to a study conducted by Swami, there is a significant trend being observed between different socioeconomic statuses instead. Customarily a thin body type for women was predominantly noticed in Western cultures, while a more plump body type was preferred in non-Western cultures. Through the age of modernity, these cross-cultural differences have been better associated with socioeconomic status (SES) with individuals from lower SES finding bigger body sizes more attractive (Swami 2013). Part of this may be attributed to the rising spread of Western culture through media which transmitted these ideals. There is debate surrounding whether modernization or Westernization is the cause of this shift from Western vs. Non-Western to SES, and we will likely continue to see changes throughout history.



Members of the fat acceptance community claiming to be "against the ideals of thinness." Fat acceptance members share the behavior of "coming out as fat" as a way of telling their audience that they do not intend to change their physical shape (Marcus, 2016).

What if their current body composition is putting them at risk for metabolic disease? Can the concept of "coming out as fat" perpetuate health problems for at-risk individuals? Is unhealthy body image something that only pertains to those striving to become thinner?

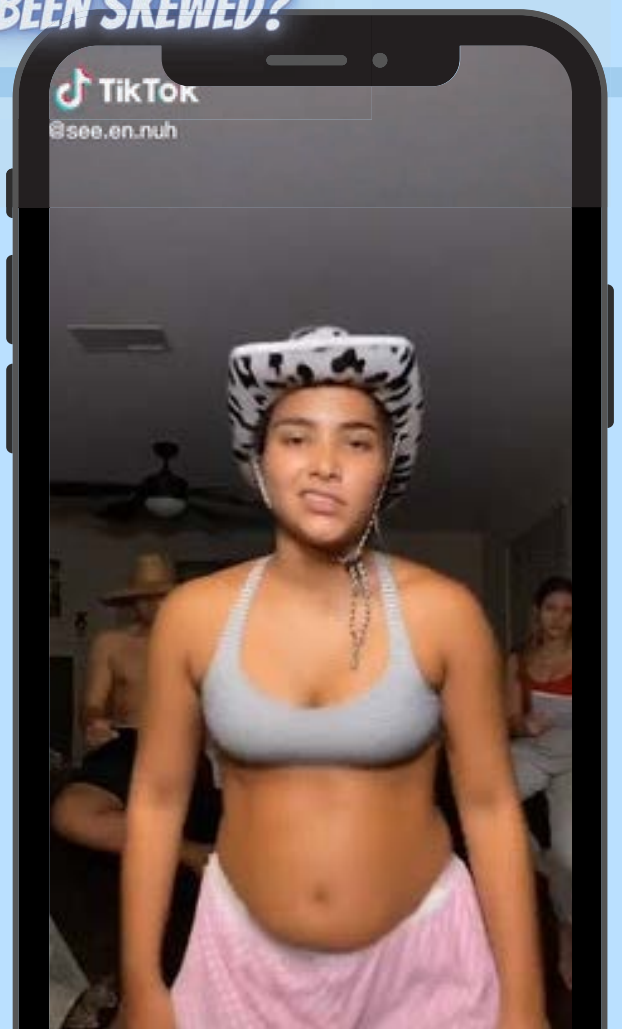
Do we believe that body positivity aligns with a resistance to change physical appearance? Or does it align with embracing body size and shape regardless of any changes that occur?

IS THE MOVEMENT DILUTED?

HAVE THE ORIGINAL INTENTIONS BEEN SKEWED?

BY KAILA DANIELS

There have even been instances when body-positive influencers have been criticized for not being the "ideal" spokesperson for the movement. Should there be restrictions on who can and can not advocate for body positivity? For example, Sienna Mae Gomez is a teenage girl who is known for being Tik-Tok's most famous body-positive creator. Sienna has acknowledged that she is aware that the body-positive movement was started by plus-sized Black women for plus-sized men and women. Due to backlash, she has had to exclaim that she is not trying to take away from the importance of the movement's origins or be the "face" of something that was not intended to include someone like her. Instead of claiming to promote body positivity, Gomez prefers "body confidence" because that encompasses the entire spectrum of body sizes.



THE TALE OF TWO CELEBRITIES

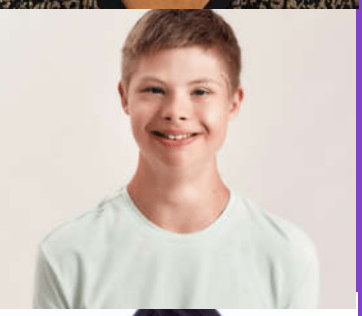
BY KAILA DANIELS

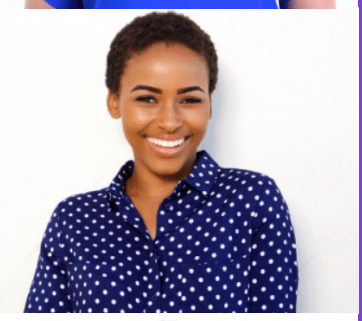
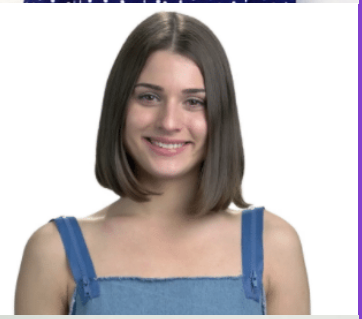
Women are disproportionately targeted by weight-related stigmas, and these stigmas fall extremely heavy on celebrity women. Higher-weight individuals in the media are objects of heavy surveillance and often perceived as needing to lose weight in order to fit into society.

Lizzo is a Grammy-winning American rapper and flutist whose popularity has been soaring since 2019. She is well-known for her anthems about self-acceptance and body positivity. On multiple social media platforms, she regularly shares photos and videos appreciating and acknowledging her larger body and self-confidence. In an interview with Essence magazine, Lizzo explains that she posts risque photos of herself because she is comfortable in her skin and wants to normalize bigger bodies of all kinds, but especially Black women (Zavattaro, 2020).

Lizzo receives immense amounts of criticism for, what seems like, every single one of her public actions. When she posts about embracing her body, as is, she gets shamed for being unhealthy. One of the most popular criticisms that she received came from Jillian Michaels, fitness expert, and trainer for the TV show *The Biggest Loser*. Michaels questioned "Why are we celebrating her body?" and followed by saying, "it is not going to be awesome if she gets diabetes". Michaels warned that even though it is important to be inclusive, it is also important not to glorify obesity. And the criticisms do not end here. When Lizzo posts about eating healthy and working out, she receives negativity from strict advocates of fat-acceptance. Those who view Lizzo as their body-confident role model tend to get upset when they witness her efforts to increase her metabolic health by eating healthy and being active.

Melissa McCarthy is another higher weight star, yet the media reactions to her weight are much different from Lizzo's. McCarthy is identified as someone who presents an "alternative on-screen embodiment of circumscribed deviance" (Bombak, et.al, 2019). She is met with more praise than hate, and this suggests that media-validated self-acceptance is more acceptable for people who fit into a privileged mold. Further, white, cis, straight, and middle-class voices dominant the side of the body acceptance movement that is less debated and shamed. Such patterns make it clear that the scope of the body positivity movement overlaps into the realm and racial and socioeconomic disparity. This is now an issue of society, identity, race, and health.

Representation (or lack there of)

By: Alyssa Pelak

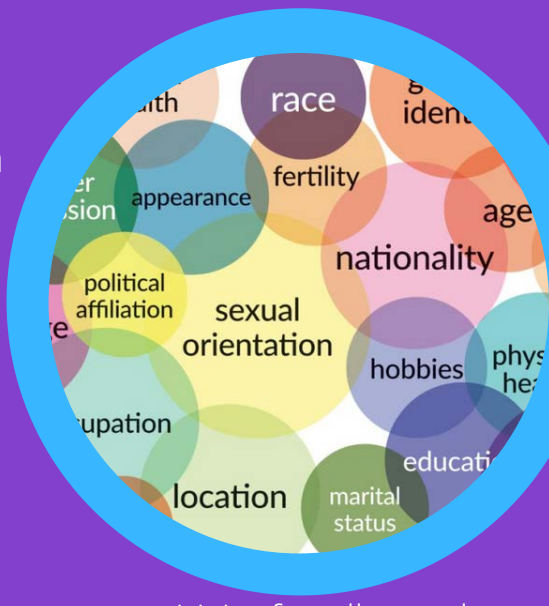
In 1989, Kimberle Crenshaw (pictured above) coined the term intersectionality to describe the unique lived experiences of people at the corners of multiple oppressions. She explained that compounding oppressions impact the challenges and obstacles that individuals face (Awad et al., 2015). When we evaluate the body positivity movement and overall body images, we cannot do so without analyzing intersectionality, which drastically impacts individuals' experiences with their bodies and weights.

Race is a major contributing factor to perceptions of the body. White bodies are typically idealized within the United States because our societal views stem from European beauty ideals and a national history of white supremacy and colonization. This means that pale skin and thin bodies are seen as healthy and beautiful (Awad et al., 2015). However, within Black culture, thickness and being curvy is the exemplary body. This creates a binary that cannot ever be satisfied by Black Americans. They are at the center of two beauty ideals, one from their culture and one from their white-dominated society. As a result, they experience even more negative views of their body and pressures from all sides (Awad et al., 2015). Another layer is added when hair comes into the picture. In a focus group with 31 college-age black women, one of the main themes that arose was hair. There is a large community-specific emphasis on hair and the time and money it requires (Awad et al., 2015). Additionally, the overwhelming ignorance about Black hair from the White population leads to many microaggressions that impact perceptions of beauty.

The movement is largely dominated by White, able-bodied, ciswomen. Black communities are often excluded and underrepresented within the movement. With the preference for lighter skins in White and Black communities, dark skin women often feel they can never satisfy the beauty standards in place (Awad et al., 2015). This shows that, in order to truly center the movement around encouraging positivity for ALL bodies, all races, must be included. Perpetuating a lack of representation continues to limit the audience of the movement to White women.

Continuing on, there is also a severe lack of representation for individuals with disabilities within the movement. Society continues to operate under a medical model of disability, viewing disability as an issue that prevents an individual from having full membership within society (Loja et al., 2013). It places a medical issue that needs to be solved within the person with the disability. Because this view permeates through society, disabled individuals are often pitied and their position is emphasized as flawed and outside of the norm (Loja et al., 2013). People with disabilities experience social invisibility and are driven out of the idea of beauty. This directly relates to the body positivity movement as disabled bodies are not shown in this movement contributing to the invisibility and lack of representation they feel. This movement could have an extremely influential place in encouraging self-love for people with disabilities. It could depict people with disabilities as confident and beautiful. This would also serve to shift the view of disability away from the medical model and toward the social model of disability which states that society impairs individuals rather than individuals being impaired themselves. People with disabilities are capable and perfect the way they are, but the way our society is shaped prevents them from being able to reach this potential and have their differences be celebrated.

We could discuss many other contributing factors that influence perceptions of bodies gender, sexuality, ethnicity, socioeconomic status, and so many more. Overall, the body positivity movement fails to truly encourage positivity for all people by representing mainly white, cis, able-bodied women. Representation of all bodies needs to be significantly increased in order to truly create a movement that embraces self love for ALL bodies.



Word Scramble

DYOB TIYLREAUTN _____

SACLIO MADIE _____

DSIAOEP IEUSST _____

WHGEIT GCYLCIN _____

POHPSOTHO _____

TSE PTNIO _____

ANRTEREPITESON _____

OBYD ASMS IDXEN _____

Body Positivity Playlist

Who Says - Selena Gomez & The Scene

Confident - Demi Lovato

Born This Way - Lady Gaga

Good as Hell - Lizzo

Body - Megan Thee Stallion

Flawless -Beyoncé

All About that Bass -Meghan Trainor

Men and the body positivity movement

by Jisel Miranda

After Rihanna's Savage x Fenty lingerie advertisements for her men's collection were advertised, praises for her diversity of representation of body types skyrocketed. Some praises included "we love a full man" and highlighting it is "the first body inclusivity for men I've ever seen" (Allwood 2020). Her model selection highlights diversity and inclusivity that is absent in other campaigns. However, there were also critics claiming "yea let's support unhealthy lifestyle choices" and making claims that it glorifies obesity. While body positivity efforts are not always met with unhindered praise, as the movement is normalized these responses may change. There are many femme body types being represented but there is still a need for more body types in media.

What about the men?

With a quick google search of "Body Positivity Movement," a majority of the images that pop up are images of women and femme bodies with very little representation of male bodies. While body image and self-esteem is an issue that has the potential to impact everyone, it is not equally represented or perceived by everyone. In Tylka et al., researcher Thomas Cash conducted a study finding that men had a more favorable body image quality of life than women. Additionally, between college men and women, there was an inverse association between body dissatisfaction and body image quality of life (Tylka et al). This indicates that in regards to body image and dissatisfaction, women struggle with this issue more than men. In a separate study by Kuebler et al. yahoo groups were surveyed for posts related to obesity and related concerns. For those who inquired whether they were "fat" or obese" 68% of men and only 40% met the CDC criteria for being overweight or obese. Likewise, 51% of adolescent boys and 30% of girls fit into these categories (Kuebler et al. 2013). This data may suggest that even from a young age, women are more concerned with their body image than men are. Therefore, much of the efforts to promote body positivity and inclusiveness have surrounded them.

Our vision for improvement

By: Kaila Daniels and Alyssa Pelak

HEALTH AT EVERY SIZE

While the body positivity movement is filled with important messages about loving your body and not folding to society's standards of a "healthy body," it also clearly has flaws. Health at Every Size directly addresses many of the concerns with the movement.

Ignoring health

While we need to love and spread positivity about all bodies, many argue that body positivity fails to acknowledge the health risks associated with certain weights. Health at Every Size is a balance between body positivity and health (Jonas, 2002). It acknowledges that the emphasis on weight loss in our society is unsafe and often unattainable. Diet culture prioritizes weight rather than health itself. HAES defines health as intuitive eating, body movement, and a stable, positive relationship with your body (Jonas, 2002). It emphasizes that health is not about size, it is about eating balanced foods that nourish your body and living an active lifestyle.

For example, in terms of eating, diet culture highlights eating less and getting smaller. It creates an internalized idea of insufficiency and that you must change your body to reach confidence, happiness, and acceptance. HAES encourages intuitive eating which includes removing the emotional associations with food. This allows individuals to rely on their own body signals and eat what they want, when they need to (Jonas, 2002). Returning to this more primal state of viewing food removes the idea of guilt for eating junk food. One of the main ideas behind this process is that individuals restrict themselves from the foods they are craving due to the guilt they have associated with it, then end up binging later because they denied themselves these foods. Or they engage in the process of weight cycling when they are on their next "diet" and lose weight then ultimately fail because of the lack of sustainable practices of diets and gain the weight back (Bacon & Aphramor, 2011).

Our bodies are able to determine what fuels us and makes us feel energized without our emotions attached. We do not need to diet or restrict ourselves, instead, we need to eat when we feel hungry, a return to "intuitive eating." This explains why HAES study groups showed better eating behaviors and an increased ability to recognize body hunger signs. These changes are more likely to be long-lasting, permanent changes (Ulian et al., 2018).

Research has shown that participants who utilized HAES, had improved cardiovascular and mental health outcomes. Individuals in a study

group who utilized the HAES approach, had lower levels of total cholesterol and low-density lipoprotein cholesterol, both cardiovascular risk factors, compared to the control group (Ulian et al, 2018). Additionally, HAES participants had significant improvements in self-esteem and body satisfaction (Ulian et al., 2018). Further, results from a review of six randomized controlled trials confirmed that HAES was associated with statistically and clinically significant improvements in blood pressure measures, health behaviors, and reduction in health disorders (Bacon & Aphramor, 2011). This emphasizes that one does not need to prioritize getting and being thin in order to be healthy. Simultaneously, we can highlight the importance of health, while changing the definition of health to separate it from size.

Focus on Appearance

The body positivity movement still focuses on what individuals look like by placing bodies center instead of health. Body positivity is solely about loving the way your body looks and changing what society views as beautiful to include more kinds of bodies. HAES centers the idea of health instead of looks which serves to take the focus off of appearance entirely (Ulian et al., 2018). It is all about movement, intuitive eating, and positive relationships with your body and food (Jonas, 2002). Health is clearly delineated as separate from size and weight.

Representation

A major criticism of the body positivity movement is the lack of representation for all bodies, races, genders, and other groups. HAES explains that bodies come in all shapes and sizes and we do not need to classify one look as healthy or not healthy. It allows for each individual to be represented since it removes appearance and beauty standards from the equation (Ulian et al., 2018). It falls more along the line with body neutrality, deemphasizing appearance and centering the individual and their health. Social media is a very important component for depictions of individuals and can be a large part of representing diverse bodies and sizes without editing them to fit a certain ideal.

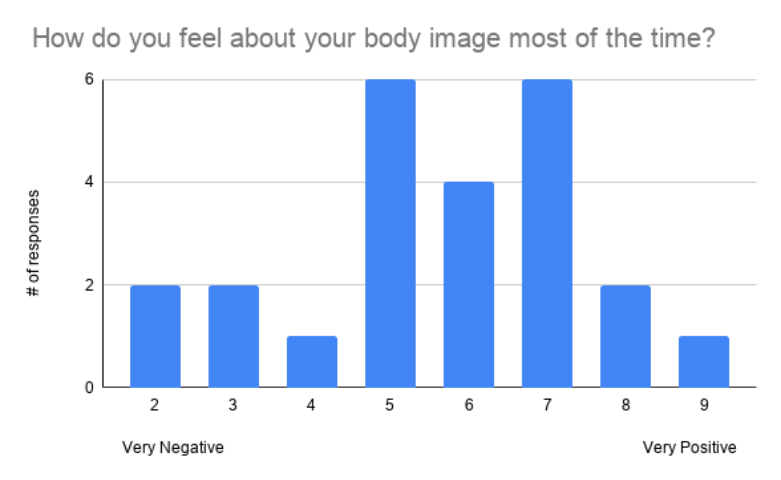
HOW ABOUT WE MAKE THINGS LESS APPEARANCE-BASED?

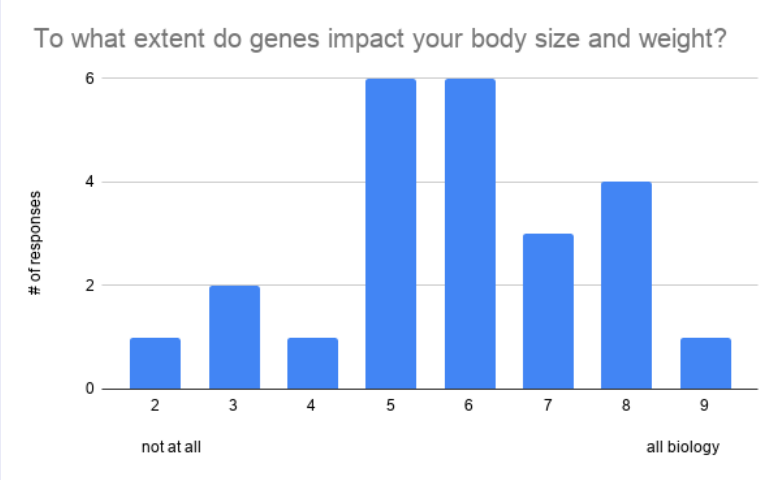
As an alternative to explicitly making posts "body-positive" (which can lead to a heavy focus on appearance), social media posts, advertisements, etc. should consistently give equal representation to all types of bodies. Refraining from acknowledging how different someone's body is from the societal ideal can decrease the perpetuation of the taboo about differences in appearance.

Supplemental Information

Of the participants who submitted responses for our survey, there were 70.8% female and 29.2% male self-identified participants. 20.8 % of our survey were 18-19 years old 66.7% survey were 20-23 and 12.5% were 40-44 years old. This survey was distributed with knowledge that the overall data would be used in research projects. There was no compensation for this survey and all data was submitted voluntarily.

Unprocessed Data





Link to the Survey: https://docs.google.com/forms/d/e/1FAIpQLScjm-QFMmM1Aau2ymoe9XW3Gk7ClTdbu-_B4VsDrE7ZdDPFgg/viewform?usp=sf_link

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