Marginalizing Fat Motherhood: An Exploration of Weight Discrimination in IVF Clinics

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Introduction:

As a woman in America, it is impossible not to notice and internalize the oppressive beauty standards of our world. While growing up, even as someone with a relatively average height and weight for the United States, I found myself surrounded by the pressure to be thin, coming from friends, family, television, doctors, and the world around me as a whole. While I also immersed myself in the body positivity movement and worked on learning to love my body for how it is, I rarely heard about the effect that such negative connotations of fatness have on fat people and the way they exist in this world. I regularly engage with topics of racism, sexism, classism, homophobia, transphobia, xenophobia, and many other forms of discrimination. I think it is amazing how far these fields of study have come, though they still have a lot further to go. In learning about these topics of the world, I cannot help but wonder why fatphobia is rarely considered in conversations about inequality. It is still largely an under-explored topic and one to which I would like to bring attention.

While learning more about weight discrimination, I also read Dorothy Roberts' book, *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty.* In it, Roberts explores reproductive discrimination toward Black people in America. She looks at how the prevention of a certain group of people being allowed to bear offspring is a form of new eugenics meant to deter the inheritance of an undesirable trait. I have always been passionate about reproductive justice, so Roberts' approach fascinated me and led me to look at weight discrimination in regard to modern assisted reproductive technologies in a new light. I began to research the two topics, and eventually, they came together to make this thesis.

While engaging in these topics, I learned that discussions of body size demand a look into terminology usage. Oftentimes, through attempted sensitivity, people use medicalized language

that can be harmful. In health spheres, a person's weight is measured with the body mass index (BMI) and classified as underweight, normal/healthy weight, overweight, and obese. I reject the terms underweight, normal weight, and overweight, because they imply that there is a correct weight that can be applied to everyone and that there is something inherently wrong with certain bodies. In reality, no body is wrong. Obese is a term that has been over-medicalized and stigmatized, and as such, I try to avoid it. Unfortunately, medical bodies often speak in terms of BMI, and so when analyzing the literature it is unavoidable at times to omit this language without losing precision in my analysis.

Large-bodied is a more neutral term employed to discuss a person with a bigger body without implying that this body is right or wrong. Another term I use when discussing people whose weight is above societal beauty standards is person of size (a word adapted from the term person of color that is used to denote non-white people). Person of size is a non-judgmental way to speak about people who may encounter weight discrimination. Finally, though the word fat has historically been used in hateful ways, there is a movement to reclaim it move past the negative connotation. I use "fat" in an attempt to normalize it as a non-judgmental descriptor for people of size. I use a variety of language to refer to fat people both because I find these terms applicable, but also to provide the readers with different words to discuss a topic that has been severely stigmatized and one for which the current dominating terminology carries bias and a history of hatred.

Unfortunately, when discussing the topic of weight, it is impossible to be precise in how to characterize someone as fat, a person of size, or large-bodied. The BMI attempts to assign numbers to their characterizations of weight. However, because weight looks different for different people and because it is such a sensitive issue, it is impossible to measure what qualifies someone as "fat" accurately and respectfully. When using terms such as underweight, normal weight, overweight, and obese, I refer to the BMI classifications $<18.5 \frac{kg}{m^2}$, $18.5 \frac{kg}{m^2} - 24.9 \frac{kg}{m^2}$, $25.0 \frac{kg}{m^2} - 29.9 \frac{kg}{m^2}$, and $>30.0 \frac{kg}{m^2}$, respectively. When I use the terms large-bodied, fat, or person of size, I speak more generally about people who are larger than what is accepted by societal body standards. While this definition is vague on an individual level, it is sufficient for discussing the large-scale issues I explore.

In this thesis, I look at individuals having children, with an emphasis on mothers. I would like to note that not all people who can bear children are women, and not all women are able to bear children. However, the crux of this thesis is tied intrinsically to sexism as it relates to both fat people and mothers and cannot be separated from gender. Trans people are marginalized and underacknowledged in all spheres of life, especially in reproductive medicine. I try to be respectful as much as possible in the language I use when discussing mothers and fathers. There are times when I am exploring how sexism interacts with reproduction, and it is unavoidable to use terms such as mother to refer to cis-gendered biological parents. I do not mean to say cisgendered women are the only people who can be mothers, but rather to speak about this group exclusively, and how certain systems of reproductive health care function for cis-gendered women specifically. Ultimately, transphobia and fatphobia are related issues for a variety of reasons, including access to health care and oppressive standards dictating what women's bodies should and should not look like. The topics discussed here relate to many of the injustices experienced by trans people, whether or not the biological aspects always apply.

The root of this thesis is how weight discrimination plays out in vitro fertilization (IVF) clinics in the United States. In exploring the topic, I will answer questions such as how does weight affect health? How does weight affect reproductive health? How does the field of

medicine exacerbate anti-fat stigma? What are the roots of fatphobia? What is it like to seek fertility treatment as a fat woman? How does reproductive discrimination play out in the modern world? What are the greater societal implications of weight discrimination in IVF clinics? In this thesis, I am looking to unpack fatphobia and reproductive exclusion in order to look at how the two interplay and to shed light on some of the harsh truths of our modern world.

The first half of this thesis is dedicated to understanding conceptualizations of fatness and difficulties in being large-bodied. Medical weight discrimination is a crucial component, which I unpack in chapter one. I explore a few of the many factors that govern weight, how weight affects health, and how the field of medicine conceptualizes and mistreats fatness. Then I consider obesity as a disease and the effects of this classification on people of size. I conclude the chapter by looking at current treatments for weight loss and alternative ways for medicine to view weight. Chapter two delves into the social constructions of fatness, experiences of discrimination in society, outside of the field of medicine, and some of the origins of fatphobia. I do not look at fertility care in the first two chapters because, while reproductive rights are central to my thesis, I cannot begin to explore weight discrimination in reproductive spheres until I have adequately explored weight discrimination in medicine and society. Chapter three, with a foundation on fatphobia laid out, looks at weight discrimination in reproductive clinics and IVF. I look at how weight can affect IVF outcomes, how clinics treat fat clients, current technology that exists and caters to the non-fat, and why people care so deeply about having biological children. In the fourth chapter, I explore motherhood and societal expectations around what a mother should look like. I give a brief history of eugenics and examine the idea of reproductive discrimination as a form of new, socialized, eugenics, through the lens of the criminalization of drug use during pregnancy in the 1980s and 90s. I then tie these ideas together and argue that

constructions of fat women as essentially un-motherly deters reproductive clinics from helping fat people have children and pass on less desirable traits associated with fatness.

Reproductive weight-based discrimination is a complicated issue with insidious implications for society. Progress has been made and continues to be made every day. The first step to dismantling any form of oppression is understanding it: learning where it comes from, what it looks like, and what better alternatives exist. This thesis, for me, has been an opportunity to question the assumptions I have held about fatness, medicalization, reproductive health care, eugenics, and so much more. My hope is that however it may happen, it can do the same for its readers and empower us all to fight these systems of oppression in whatever way possible.

Chapter 1:

Medical Conceptualization and Treatment of Larger Bodies

Contrary to the implication that the "normal" weight category would represent the majority of Americans, over 70% of the population is considered overweight or obese.¹ People are constantly warned of the dangers of weight gain and the health hazards of being fat. Newspapers have headlines, such as "Obesity Rates Keep Rising, Troubling Health Officials,"² "America's getting even fatter: Startling growth in obesity over past 20 years,"³ and "Kids' Weight Gain in the Pandemic Is Alarming Doctors"⁴ as well as pictures of large-bodied people, scales, and food, that strongly equate fatness with unhealthiness. There is an inherent assumption that being heavier is unequivocally bad and that weight gain must be prevented for the good of the public health. The opinion that being fat is unhealthy, though, is largely fueled by problems with the way fatness exists in medicine. The incredibly complicated phenomenon of health is all too often simplified into the number on the scale. In this chapter, I delve into what weight is composed of, how it interacts with health, and injustices in how fat people are treated by the field of medicine in hopes of deconstructing the oversimplifications that have been made regarding weight and health.

Contributing Factors of Weight

A common misconception about weight is that it is controllable. In reality, a person's weight is determined by many factors that are genetic, environmental, and societal. The most prevalent theory surrounding weight gain is that it is caused by eating more calories (a unit denoting how much energy a body can gain from a specific food) in food than are burned off.⁵

There are a number of different types of factors that can affect this process and in my analysis below, calories eaten in food compared to calories burned is one framework employed to discuss weight. This section will explore calorie consumption as well as many other determinants of weight that are important for comprehensively understanding how weight is oversimplified.

Some of the factors that affect weight are genetic. Genetics have been shown to affect food consumption, in addition other weight determinants. A 1990 study examined 25,000 pairs of fraternal and identical twins born between 1886 and 1958 who had been raised together and apart and compared the BMIs of the children to their biological and adoptive parents. It concluded that as much as 70% of weight is determined by genetics.⁶ The non-genetic determinants of weight have increased in the last 65 years and modern estimations of this number are between 40% and 70%,⁷ but genes are still understood to play an important role in weight determination⁸ with more than 300 single-nucleotide mutations that have been associated with weight.⁹

Genetic factors that are not direct mutations of the DNA, otherwise known as epigenetics, are another piece of weight determination. Epigenetics is specific to certain tissues and can be exerted through processes called DNA methylation and histone modifications, which influence other biological processes such as imprinting, causing certain genes to be expressed or not expressed.¹⁰ Imprinting affects growth and cellular differentiation (changes to a cell's functional type) and impacts weight.¹⁰ Epigenetics can begin to affect people as young as prenatal development, which evidence shows may be the most susceptible time for epigenetic changes.¹¹ If a gestating parent experiences malnutrition or eats more of certain foods, the fetus is predisposed to be heavier.¹¹ Post-birth factors such as diet and exposure to environmental toxins also affect weight through the epigenome.¹¹

In addition to genetic and epigenetic factors, the microbiome is another biological factor that influences weight. The microbiome is made up of many kinds of bacteria that live in a person's gut and maintain metabolic health in a variety of ways. It is very important for metabolism, and it allows people to efficiently digest food and create energy. When the microbiome is out of balance it causes excess weight gain or weight loss.¹² Gut microbiota play a role in digestion through several mechanisms. One is to help metabolize essential nutrients such as carbohydrates, lipids, and amino acids effectively and efficiently.¹² Gut microbiota also produce short-chain fatty acids that play a role in reducing appetite and signaling the brain to feel full.¹² Inflammation, which is associated with weight gain, can be decreased by microbiota.¹² Studies conducted on mice found that metabolic disruption activates AMP-activated protein kinase (AMPK), which is an enzyme that leads to suppression of food consumption and increases calories burned.¹³ AMPK is generally activated during exercise or in cases of other conditions that deplete energy.¹³ Activation of AMPK decreases the body's conversion of food to stored energy and therefore can lead to increased eating with decreased weight gain.¹⁴

Many diseases and disorders also cause weight gain. One is an imbalance in the thyroid. The thyroid gland regulates energy usage, which is directly tied to weight. Disorder in this gland can cause weight gain or loss. The thyroid regulates the release of three hormones: triiodothyronine (T3), tetraiodothyronine (T4), and calcitonin.¹⁵ These hormones regulate energy use in the body. When the body needs more, the thyroid signals the release of more hormones, causing cells to consume more food and convert it to energy.¹⁵ If the thyroid is out of balance, it can cause over or under-consumption of food leading to weight gain or loss. Hypothyroidism is a condition in which the thyroid is underactive, and the cells are not signaled to use as much food as they should. Hypothyroidism can lead to weight gain, as a person can continue to eat a recommended diet and not use up all of the resulting food, which will then be stored as body fat.¹⁶

In addition to genetics and biological factors, environment influences a person's weight. A modern cause of weight gain is an increase in widely used medications. Medications are a relatively recent invention in human history. People take drugs for a variety of physical and mental health conditions, and modern medicine allows humans to live longer and easily fight off diseases that would previously have been a death sentence. Today, more people use prescription drugs than ever before. In a 2019 survey, 69% of adults aged 40-79 in the U.S. and Canada indicated that they had used one or more types of prescription drugs in the past 30 days; 22.4% used five or more prescription drugs in the past 30 days.¹⁷ Weight gain is a potential side effect of many common drugs, including psychiatric medication, diabetes treatment, high blood pressure drugs, protease inhibitors, steroids, contraceptives, and antihistamines.⁵ It is difficult to map out exactly how much these drugs affect weight and in how many people, but the ubiquity of weight gain as a side effect in so many modern drugs, as well as the large-scale prevalence of prescription medications, implies that weight gain associated with drugs is a contributing factor in many people's body sizes.

In addition to prescription drugs, certain types of foods cause weight gain. Food can be categorized into four categories: unprocessed/minimally processed, processed culinary ingredients, processed, and ultra-processed.¹⁸ Unprocessed foods come directly from plants or animals and require no preparation, while minimally processed foods are natural foods altered by processes such as drying, roasting, refrigerating, etc., designed to make them more edible, taste better, or to preserve them.¹⁸ Processed culinary ingredients, such as oil, butter, or salt are taken from nature and processed by grinding, milling, drying, etc. to be used as ingredients in

cooking.¹⁸ Processed foods are edible in and of themselves and are generally made through a combination of unprocessed and processed culinary ingredients; examples include canned fish, cheese, or bread.¹⁸ Ultra-processed foods are not modified from unprocessed foods but rather are made from entirely derived substances. Examples include soft drinks, packaged snacks, or preprepared frozen dishes.¹⁸ Ultra-processed foods are quite popular for many reasons. They are generally inexpensive, have a long shelf-life, are safe from bacteria, can provide important nutrients, and require minimal preparation.¹⁹ The majority of calories consumed in America today are from ultra-processed foods.¹⁹ In addition to other negative health outcomes, ultraprocessed food can lead to an increased risk of breast cancer, prostate cancer, and colorectal cancer.²⁰ They also encourage overeating. In a 2019 U.S. study, 10 participants were given a diet of completely ultra-processed foods for two weeks and then switched to a diet of completely unprocessed foods for two weeks, while another 10 participants were given the same diets in the reverse order (two weeks of unprocessed foods followed by two weeks of ultra-processed foods). Participants were allowed to eat as much or as little of either diet as they liked, and on average each individual consumed an extra 280 calories of processed food per day than unprocessed foods. After two weeks of unprocessed foods, the participants lost an average of 0.9kgs and after two weeks of ultra-processed, foods they gained an average of 0.9kgs.¹⁹ Ultra-processed foods are typically high in calories, salt, sugar, and fat, which makes them more addictive than other options.¹⁹ Some studies have proposed that ultra-processed foods have addictive properties designed to encourage overeating by disrupting gut-brain signaling so that people continue to eat after they are full without realizing it.¹⁹ Ultra-processed foods are more ubiquitous than ever in the modern age and factor, to some extent, into weight determination.





women by income related to the federal poverty level among different racial groups (note: obesity by income did not show a significant trend among men)



Figure 1: Weight variations by socioeconomic indicator²¹

As figure 1 shows, a person's weight is largely influenced by social factors such as race, income, and education. Socioeconomic status (SES) affects weight in a variety of ways. Ultraprocessed and other unhealthy foods are much more accessible for low-income people than healthy food, such as fruits, and vegetables. In the United States, households spend an average of 11% of their income on food.²² Poor households, however, tend to spend more than 25% of their income on food because their overall income is much lower.²² It is difficult to afford necessities when living below the poverty line, and often people must save money wherever possible. When looking at food options to buy on a budget it is most feasible, and oftentimes financially unavoidable, to buy cheaper unhealthier foods.²² For example, in June 2013, researcher Caitlin Daniel found that at a local grocery store in Somerville Massachusetts, romaine lettuce provided 72 calories per dollar of cost, while Doritos provided 385 calories per dollar.²³ For a person with limited funds, it is most feasible to buy the Doritos that can easily satisfy hunger and provide quick energy, rather than the healthier romaine lettuce that is more expensive and cannot

be filling on its own. In discussing ultra-processed food, it is important to understand the financial limitations that factor into food purchasing decisions.

The link between cheap ultra-processed food and income is easily apparent, but other unseen economic factors influence diet as well. One is that a limited food budget can lead children of low SES to develop a preference for unhealthy foods and never branch out to more nutritious options. Humans are evolutionarily predisposed to fear new foods, as it keeps us safe from potential poisons.²⁴ For children, all foods are new, so they tend to reject most foods.²³ Foods that are calorie-dense are easier to accept for the same reasons they are enjoyable to adults.²³ On average, a child needs to try a new food eight to fifteen times before they accept it.²³ Low-income parents who cannot afford to buy and waste food eight to fifteen times before a child will eat it may be forced to give the child foods they have liked in the past, so as to avoid potential food waste.²³ Often, children then develop food preferences that remain through childhood, adolescence, and possibly longer,²³ meaning that children who grow up in lowincome households are predisposed to prefer unhealthy foods. The numbers reflect this trend; an increase in family income has been shown to decrease the likelihood of childhood obesity.²⁵

Food deserts are another way SES determines diet. A food desert is an area in which there is no healthy affordable food within close distance to residences. They are more prevalent in low-income areas and can affect weight. Figure 2 looks at geographical trends in distance to a grocery store, owning a car, obesity, and diabetes. Research on food deserts has found that a lower density of supermarkets in a neighborhood and a higher price of food sold at local grocery stores increases the prevalence of obesity.^{26,27,28,29} Further distances to reach grocery stores and inflated prices mean that people have less access to food and are more likely to buy cheaper ultra-processed food.



*Figure 2: Geographic trends in the U.S. for income and car ownership in households more than one mile from a grocery store and for prevalence of obesity and diabetes*³⁰

In addition to diet, SES plays a role in a person's ability to get regular exercise. Exercise prevents weight gain by burning more energy.³¹ People of low SES face economic barriers to maintaining regular exercise. A 2019 study found that poor adults living in low-income areas have the lowest likelihood of being physically active, followed by poor adults in non-poor areas and non-poor adults living in poor areas. Non-poor adults living in non-poor areas have the lowest likelihood of physical inactivity.³² A lack of leisure time is the most reported reason for physical inactivity among low-income people, as they are more likely to work long hours, possibly at multiple jobs, and have more familial duties than higher-income people.³³ Additionally, regular exercise may require regular childcare, which low-income parents cannot afford.³³ Lack of energy is another barrier to exercise since working long hours both at home and at a job can leave a person too drained for physical exertion.³³ Though free options of exercise exist, it is often easier to do if a person has money to spend on gym membership, exercise classes, or appropriate clothes and shoes.³³

In addition to its effects on eating habits and exercise, SES can take a psychological toll. Poverty is known to cause increased toxic stress, or the body's response to prolonged and high levels of stress, which can be detrimental to health in a number of ways.³⁴ Cortisol is a hormone involved in the stress response system and has been found in higher levels from children whose families face economic instability.³⁵ Cortisol can increase abdominal body fat distribution, and cause cravings for high calorie, or "comfort" foods.³⁶ Different people are affected by stress in different ways, and some people are genetically more susceptible to cortisol-related weight gain than others.³⁷

Moving from income to race, as shown in figure 1A, obesity occurs more frequently among Black populations. Systemic unjust impoverishment of African Americans has left Black people in higher rates of poverty,³⁸ meaning they are at a higher risk for all of the links between SES and weight that I just explored. Additionally, certain factors that influence weight for poor people are compounded for Black communities. Black people suffer from more stress due to racial stigmatization³⁹ and are therefore more susceptible to cortisol related weight gain. Increased perceived discrimination among Black people has been shown to increase the likelihood of higher weight.⁴⁰ Food deserts are a racialized as well as class-related issue.⁴¹ There have also been suggested physiological differences in some Black women that predispose them to weigh more than other women.⁴² While different theories abound, unfortunately, studies around weight have historically centered white bodies, as I will touch on in the next section. Ultimately, there is currently a lack of comprehensive understanding about the leading causes, and which elements are most important to consider for race and weight.⁴⁰

The many factors I have just discussed are only some of the diverse determinants of weight. Others include hypertension, type II diabetes/insulin resistance, dyslipidemia, endocrine

disruption, alcohol consumption, and smoking. Due to the vast and complicated mechanisms that factor into weight, it is very difficult to study. All of the factors I just discussed influence weight on a societal level. It is hard to extract specific causes for individuals or to evaluate which has the largest effect, and oversimplification of weight is a common error made to the detriment of fat people. In the next section, I will delve into weight and health and how weight has been treated medically. While exploring this topic, it is crucial to remember everything discussed in this section and to understand that weight is not a single static trait, but rather a product of a multitude of factors that must not be ignored or oversimplified.

Medical Mistreatment of Weight and Health

My analysis thus far has more or less followed dominant medical theories around weight. It is difficult to come to any sort of biological understanding of weight without listening to widely held scientific opinions. The next section, though, will question how medicine has treated weight, specifically in regard to health, and point out many flaws in weight-related science. I do not wish to outright reject scientifically backed theories, but rather to question the bias surrounding them, and to shed light on frequently overlooked research.

As discussed in the previous section, weight is a product of many complicated factors. Since it is hard to medically evaluate so many elements, weight is simplified by individual physicians and researchers to the Body Mass Index, or the BMI. A person's BMI is calculated as body weight in kilograms divided by height in meters squared. The BMI is imprecise for several reasons. First of all, the BMI takes into account only height and weight, but as a determinant for obesity, it claims to measure body fat content. Weight can be affected by body fat but is also increased with muscle mass, and a BMI measurement does not distinguish between fat and muscle.⁴³ The BMI is also only accurate for some populations. It does not account for the effects of different hormones on weight. Cisgender women on average have more body fat than cisgender men, but the BMI is used the same way for all genders.⁴³ Fat content can also change with age, as muscle mass decreases in older individuals.⁴³ Different racial and ethnic groups tend to have different body compositions at the same BMI⁴⁴ and different risks of developing various health conditions.^{45,46} The BMI, though, is tailored to white European bodies and though it is used all around the world it is less accurate in non-white European racial and ethnic groups.^{47,48} Furthermore, the relationship between BMI and body fat content is nonlinear, meaning that as BMI increases, percent body fat increases as well, but at a slower rate. Two people with different BMIs can have the same percent body fat, and two people with the same BMIs can have different amounts of body fat.⁴³

BMI is not a good determinant of weight, but a larger question is whether weight is a useful way to evaluate health. Higher body weight is generally recognized by the field of medicine to have increased risk for many health conditions and diseases. A 2009 meta-analysis review in the U.S. and Europe found a total of 89 studies that associated higher BMI with increased incidence of 18 diseases: type II diabetes, colorectal cancer, kidney cancer, prostate cancer, breast cancer, ovarian cancer, endometrial cancer, pancreatic cancer, esophageal cancer, hypertension, coronary artery disease, congestive heart failure, pulmonary embolism, stroke, asthma, gallbladder disease, osteoarthritis, and chronic back pain.⁴⁹ Heart disease and cancer are the top two leading causes of death in America, with stroke and diabetes in the top ten.⁵⁰ Increased weight is also linked to increased mortality risk, to some extent because of its connection to all of those diseases. A 2016 global meta-analysis of 239 studies found that among people with BMIs greater than 25, mortality risk increased with BMI.⁵¹ These two studies reflect

the popular medical opinion, which is considered common knowledge at this point in time, that fatness is linked to health risks.

In understanding what the predominant scientific beliefs around weight are, it is important to understand that all science is subject to human subjectivity, and these studies are not exempt. In the 2009 meta-analysis about weight's associations with various diseases, of the individual studies included who reported racial makeup (excepting one that focused on Black women), 81% to 95% of participants were white.⁴⁹ Data predominantly examining white people cannot cohesively represent the human condition, and ignores the ways that race intersects with weight and health. As discussed in the paragraph about the BMI, health risks for people of color present differently in regard to weight than for white people.⁴⁴⁻⁴⁸ Another flaw with the data is that 56% of the studies relied on self-reported measurements.⁴⁹ When self-reporting height and weight, people tend to give larger height measurements and smaller weight measurements, resulting in lower BMI recordings.⁵² While the difference in actual and reported BMI may not be large, it can make a difference in the data, especially when the discrepancy changes a person's BMI category. An estimate of 13% of men and 7% of women are misclassified by BMI category when height and weight are self-reported.⁵² Moreover, people with higher BMIs are more likely to misreport data, so conclusions drawn from self-reported data about fat people are less reliable than those about non-fat people.⁵² Hazard ratios are found to be higher in studies using selfreported weight data than those with measured data,⁵³ meaning that these studies are more likely to conclude weight has a detrimental effect on health. Self-reported data of 56%, while a majority, is relatively low compared to other studies on weight, but this analysis did nothing to mitigate the errors that may have been caused by inaccuracies in self-reported data. While it is difficult to know exactly how race and self-reported affect these studies, and what the results

would look like with better data, it is important to understand their conclusions with the knowledge of where this data came from, and the problems that often occur in studies about weight and health.

The 2016 analysis, conducted by the Global BMI Mortality Collaboration (GBMC), associating higher BMI with a higher risk of death was conducted on over 10.5 million participants in 239 studies globally,⁵¹ seemingly providing a large sample size of varied data. However, this number is deceptively large because the analysis excluded any participants who smoked or had ever smoked, under the justification that smoking lowers BMI and deteriorates health and would therefore skew the data to show lower weight people as less healthy than they actually are.⁵¹ The GBMC also did not include people who died within five years of data collection, under the assumption that illnesses associated with weight loss at later stages would cause the data to incorrectly report lower BMI as causation of mortality risk rather than a correlation of a terminal illness.⁵¹ After adjusting for these factors, this analysis examined under 4 million participants, which while still a large number for a meta-analysis, is not the same as 10.5 million.⁵¹ Though the authors claim that smoking and death within five years would bias the data to inaccurately associate lower BMI with poor health, they have no reliable data-based sources to support this claim.⁵⁴ The analysis also did not account for the fact that cigarette usage is nearly twice as high for people earning less than the federal poverty level than it is for people with incomes more than two times higher than the federal poverty level.⁵⁵ By excluding people who have ever smoked from data the GBMC unequally excludes poor people. Income has an effect on life expectancy,⁵⁶ and an analysis of mortality should equally include all income groups to accurately draw conclusions. Furthermore, the GBMC excludes participants who passed away within five years of data collection in order to adjust for non-related conditions causing weight

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loss but does not look at circumstances of weight gain due to other health reasons, such as weight gain as a common side effect for many pharmaceutical drugs that a range of illnesses.⁵ The GBMC also did not adjust for self-reported data.⁵⁴ The 2016 and 2009 meta-analyses are just two studies, but the flaws in their data illuminate common examples of how science on weight and health reflects bias and inaccuracies.

We have now looked at current scientific opinions regarding weight and why many studies are flawed, but that leaves the question of how weight actually affects health. A metaanalysis conducted by Flegal et al. in 2013 looked at weight and all-cause mortality in 97 studies for 2.88 million people.⁵³ The researchers adjusted for self-reported data and did not unnecessarily omit people who might skew the results. Additionally, their conclusions did not support that smoking and preexisting illnesses had a large effect on the data.⁵³ The studies analyzed came from countries in five continents, though the vast majority were from the U.S., Canada, or Europe. Flegal et al. categorized weight into the standard BMI categories, and differentiated obesity into grade 1 (BMI of 30-34.9), grade 2 (BMI of 35-39.9), and grade 3 (BMI of greater than 40). The results, which are shown in figure 3, were that people in the overweight category had the lowest risk of mortality, followed closely by obese I, and then normal weight. Grades 2 and 3 had sizably higher risks than any other group.⁵³ While it is impossible to avoid bias or to know exactly how weight influences health, Flegal et al.'s analysis is more well-rounded than other studies on weight and health and accounts for common sources of error like self-reported data. Their conclusions question other studies' results on which weight groups are more susceptible to negative health outcomes, but their sound data analysis makes them well situated to do so.



*Figure 3: Flegal et al.'s findings about mortality risk by BMI category as compared to normal weight mortality risk*⁵³

Flegal et al.'s analysis begs the question, what is it biologically that puts people with overweight and obesity grade 1 BMIs at a lower risk for mortality? There are many factors at play with weight, and the oversimplified idea in medicine that fatness is always unhealthy does not help in finding a comprehensive answer to this question. One explanation, though, is the obesity paradox. The obesity paradox is a phenomenon in which fat people have better prognoses as intensive care patients and for surviving certain chronic illnesses, including cardiovascular, pulmonary, and kidney disease.⁵⁷ A part of the obesity paradox is that extra body fat helps people struggling with late-stage chronic diseases that cause unintentional weight loss known as cachexia. Cachexia worsens prognosis, and more body mass can soften its effects.⁵⁸ Another way obesity lowers health risks, specifically in the case of heart disease, is that a higher prevalence of anti-inflammation and lowers the risk of blood clots. There has also been evidence to suggest fatter people can better preserve kidney function while more efficiently utilizing heart medication.⁵⁸ The obesity paradox is well researched, and yet has been unable to significantly

change scientific opinions about weight. Even its naming as a paradox implies that it is a fluke phenomenon, one that should be dismissed, rather than a call to rework our conceptions of weight and health. The GBMC study on obesity and mortality risk is an apt example of how modern researchers treat the obesity paradox. Rather than incorporating the benefits of obesity at a later stage in a chronic illness, the GBMC wrote off the obesity paradox as a fluke and excluded all participants who had died within five years of data collection, so that the health benefits of extra body mass would not be factored into the data.

Higher mortality risk for people on the larger end of obesity categories, which was confirmed in both mortality risk studies, may be a result of poor treatment in medical settings as much as it is due to adipose tissue. Physicians have weaker patient-doctor relationships with fat patients and tend to develop less emotional rapport with them⁵⁹ leading to negative psychological effects that make people of size less likely to trust their doctors, follow their advice, or return for subsequent visits.⁶⁰ Poor physician care means that fat people are less likely to receiving screenings for a variety of cancers⁶¹ and are frequently given incorrect doses of antibiotics when receiving emergency care.⁶² A 2015 study found that weight discrimination caused a 60% higher mortality risk and was associated with a worse mortality risk than most other attributions of discrimination.⁶³ This finding has implications for Flegal et al. and the GBMC's analyses who found that the group with the highest mortality risk was also the group at the greatest risk for experiencing weight-based discrimination.

I will not dispute that there is a trend toward poorer health outcomes at higher weight groups, whatever the cause may be. But while this trend holds true on a population level, fatness is not directly correlated with health in the same way for every individual person. Cardiorespiratory fitness, or the ability of the circulatory and respiratory systems to support

physical activity,⁶⁴ is a better indicator for mortality than weight. A meta-analysis of ten studies found that people with a BMI of 25 or higher (the cutoff between the normal weight and overweight categories) who had good cardiorespiratory health were at the same mortality hazard ratio as people with a BMI lower than 25 who had good cardiorespiratory health.⁶⁵ Another way to measure health irrespective of weight is through cardiometabolic health. The metabolic syndrome is the combination of many cardiovascular risk factors, including insulin resistance, and high blood pressure.⁶⁶ A metabolically healthy person is defined as having zero or one components of the metabolic syndrome. Metabolically healthy people considered to be overweight or obese have been shown to have equal mortality risk as metabolically healthy people considered to be in a normal weight group.⁶⁷ Two meta-analyses studying health before and after surgical removal of body fat found no improvement in cardiovascular disease risk.^{68,69} Likewise, intentional weight loss has shown mixed results in improving life expectancy of largebodied people. Several studies showed a 15%-18% lower mortality risk after a 2.5-5.5 kg weight loss for obese individuals.^{70,71,72} By comparison, improvement to cardiorespiratory function has been associated with a 35%-59% reduction in mortality risk.⁷³ One study found a 16% lower mortality risk after weight loss for unhealthy obese adults, but that a weight loss in healthy adults (of all sizes) actually increased patient mortality risk by 11%,⁷² indicating that improvements to cardiometabolic health, rather than weight loss, has more potential for improving health.

In this section, I have looked at the predominant theories about weight and health, and how, while weight is somewhat associated with poor health outcomes, much of the science about how exactly is flawed. Furthermore, it is such a complicated trait and conclusions drawn on a population level are not applicable to every individual. Cardiorespiratory and cardiometabolic factors are much more accurate in assessing one person's health. They are easily measured through tests that assess the length of time a person takes to walk or run a certain distance or the distance someone can walk or run in a given amount of time.⁶⁴ Blood pressure and information gained from blood work such as hemoglobin A1c, lipid profiles,⁷⁴ and blood sugar levels⁶⁶ are other ways to evaluate these metrics of health. Unfortunately, weight is still widely used as a diagnostic tool, resulting in negative consequences, which I will explore in greater depth in this next section.

The Medicalization of Obesity

Though I have just given evidence that weight is not the best way to measure health, generally the field of medicine does not agree. Rather than moving toward other metrics in the past couple of decades, doctors and researchers have continued to push further toward viewing obesity as a negative condition. In this next section, I look at the medicalization of obesity as a way of understanding how weight is currently conceptualized by medical institutions, which is crucial in considering medical weight discrimination overall. I analyze this occurrence with all the information from the previous section, as well as an understanding that many medical bodies truly believe in weight as a determinant of health, and how this predominant medical theory may influence the treatment of obesity.

Medicalization, generally, is when a nonmedical issue is reconceptualized as a medical phenomenon.⁷⁵ It can bring positive effects to a condition, such as the mitigation of religious stigma and legal backlash through the medical validation of a condition, as well as increased medical care and attention toward fighting a disease.⁷⁵ Medicalization has been theorized to be a form of social control. When a nonmedical occurrence, once independent from medicine, is medicalized, it can become consumed and controlled by the medical field. Afflicted individuals

see medicalization, not just of their disease, but of their life practices, many of which become relevant in the treatment of their condition.⁷⁵

In 2013 the American Medical Association (AMA) declared obesity to be a disease, defined as a BMI of 30 or higher.⁷⁶ The AMA was by no means the first organization to categorize obesity as a disease. The debate began in the latter half of the 20th century, and prior to its disease classification many groups considered it a risk factor.⁷⁷ The National Institutes of Health labeled obesity a disease in 1998 and the Obesity Society in 2008.⁷⁸ The AMA, though, is the largest, and arguably the most influential, medical organization.⁷⁸ They are the only association to convene over 190 medical societies and other stakeholders,⁷⁹ and they wield a great effect on health policy through influence over insurers, industry, and lawmakers.⁷⁸ The AMA's declaration of obesity as a disease is an indicator of the medicalization that had occurred. It also sent a powerful message to medical stakeholders, encouraging the treatment of obesity to become further incorporated into medicine.

The AMA, as a powerful medical authority, foresaw many benefits in medicalizing obesity. They supported their decision by stating that recognition as a disease would open new research opportunities for the prevention and treatment of obesity.⁷⁶ Patrice Harris, an AMA board member at the time of this declaration, and later president of the association, stated when they released their decision, "Recognizing obesity as a disease will help change the way the medical community tackles this complex issue that affects approximately one in three Americans. The AMA is committed to improving health outcomes and is working to reduce the incidence of cardiovascular disease and type 2 diabetes, which are often linked to obesity."⁸⁰ The AMA did not have ill intentions in medicalizing obesity, but rather they were working under the

dominant framework that increased weight is a good determinant of poor health, and believed, as many medical bodies tend to, that a medical solution was the best course of action.

The AMA's reconsideration of obesity as a disease furthered its medicalization, giving it a higher level of medical validation, while at the same time opening it up to the vulnerability of social control by the field of medicine. The medical community and the large-bodied community had their own reactions to the shift in obesity treatment, some positive and some negative. Many people saw the medicalization of obesity as a way to bring equal access to healthcare to fat people by incorporating the condition further into the field of medicine and increasing medical domain over it.⁸¹ They hoped it would expand treatment options and create more opportunities for research and medicine toward helping people considered obese.⁸¹ A study on 2.2 million adults found that between 2009 and 2015 the number of prescriptions written times the number of pills in the prescription in the U.S. increased for weight loss drugs by 32.9%,⁸² indicating that there is a growing usage of and access to health care for weight-related treatment.

Another sentiment was the redefinition of obesity as a disease elicits more care and respect from physicians who may be more willing to treat a disease than a condition.⁸¹ Insurance companies group risk factors into preventative health care, which historically receives fewer resources than diseases.⁸¹ Previously, obesity was considered a risk factor. Since it has been categorized as a disease, though, insurance companies give more coverage for medical treatment related to obesity.⁷⁷ Between 2009 and 2017, Medicaid and state employee health insurance coverage increased for three treatment options for obesity: nutritional consultation, pharmacotherapy, and bariatric surgery, with the exception of Medicaid for pharmacotherapy, which maintained the same amount of coverage in that time.⁸³ Improvements in insurance coverage benefits people of size who may not be able to afford health care otherwise.

Another factor in the debate over whether obesity is a disease is the effect medicalization can have on societal stigma. Because medicalization rhetoric around conditions focuses on biological problems and solutions rather than nonbodily ones, it draws blame away from people and places it on bodies.⁸⁴ Culpability of fat people is a common source of weight bias. As I explored in the first section, many biological, environmental, and societal factors determine a person's weight, and yet there is a misconception that weight is strongly controlled by individual choices and lifestyle; these beliefs exacerbate weight stigma.⁸¹ Between February 2013 and March 2015, survey respondents with the perception that "obesity is a personal problem of bad choices" declined from 44% to 36%,⁸⁵ indicating that there was a downward trend in the public attitude that obesity was caused by lifestyle choices after the AMA categorized obesity as a disease.⁸¹

Those opposed to the classification of obesity as a disease argue that rather than limiting the stigma of the condition, its medicalization increases the ostracization of fat people. Unlike many diseases that manifest as a part of a person's body, or the malfunctioning of it, obesity refers to a person's body directly. Diseases generally require treatment and are conceptualized as something to be avoided or cured. The medicalization of obesity paints fatness as an undesirable condition, or as something inherently wrong.⁸⁶ Its prior classification as a risk factor implied that there may be diseases associated with the condition, but that there was some flexibility in labeling fat bodies as wrong. A person at risk of getting a disease could avoid contracting it and lead a healthy life. While a risk factor characterization leaves a level of ambiguity, a disease classification is more absolute. It furthers the implications that fatness must be fixed.

In addition to stigma, medicalization exacerbates the cost of living with a condition. An increase in treatment options can be a good thing, but that can also lead to additional spending.

In the US, an average of \$15,000 more is spent on medical care per year for each person considered overweight compared to a person considered normal weight, and an average of \$26,000 more is spent for each person considered obese;⁸⁷ these costs have been steadily rising.⁸⁸ Type II diabetes is an example of another condition that got much more expensive as more treatments developed. Despite the number of medical interventions for the disease, type II diabetes is still very prevalent, possibly because many medications are aimed at managing it rather than preventing it.⁷⁷ As is the case with Type II diabetes, new treatment options for obesity have increased the cost associated with it, without decreasing its prevalence, thereby increasing the amount of money spent on medicine in this country.⁷⁷

Sometimes, increased spending on a medical condition can actually save money overall, when put toward preventative medicine. If diseases are treated before they occur, money will be saved later on. Part of the rationale behind medicalizing obesity was that it would lead to further treatments and advances in care⁸⁰ so that patients who were treated for obesity would be at lower risk for diseases that are associated with obesity that I discussed in the previous section. While spending may increase for obesity-related treatments, money would overall be saved in not needing treatment for these more expensive and dire diseases. However, while spending has increased due to weight-related treatment, medicalization has not accomplished its goal of lowering the incidence of obesity. In fact, the rate of obesity among U.S. adults has increased slightly faster since the AMA's decision in 2013 (see figure 4). Part of the issue is the complexity of weight. As explored in the prior sections, numerous complex factors determine a person's weight. Medicalization, in general, leads to an increased focus on medical solutions and less attention given to social and environmental conditions, diverting resources from solutions that tackle these factors.⁸⁴ Medical interventions tend to oversimplify weight and place undue

blame on personal responsibility that can be easily undermined by environmental or social factors.⁸⁹ There are also misconceptions surrounding weight and health, and a lack of research done into how fatness can be healthy.





Figure 4: Incidence of obesity (BMI \ge 30) and severe obesity (BMI \ge 40) in the U.S. throughout the 21st century⁹⁰

Medicalization of obesity might provide a number of benefits for afflicted individuals (e.g. more research into treatment options, greater insurance coverage, and less blame put toward obesity as a personal problem) that would be quite useful if obesity was directly related to health. In reality, weight's impact on health can vary, and there are better indicators, such as cardiorespiratory fitness, which can be easily measured at doctor's appointments. Classifying obesity as a disease states that obesity is undeniably harmful to a person's health with a level of authority that medical professionals simply do not have evidence for at this moment. Medicalization wrests bodily authority from afflicted individuals and gives power to doctors.⁹¹ Viewing obesity as a disease dismisses fat people's opinions about whether or not they would like medical intervention and lauds doctors as the ultimate authority over their bodies. Given how weight has been so mistreated by medicine and all the misconceptions about weight that still abound in medical spaces, I would argue that weight has been over-medicalized. Doctors, who have historically mishandled weight, should not be putting themselves in a position to dictate what fat people do with their bodies. Obesity is not a disease because people can be obese and healthy, and classifying it as such perpetuates misconceptions about weight and health and opens fat people up to further stigma and scrutiny over their bodies, which they already face far too frequently in our world.

Weight Loss as a Medical Treatment

Medicalization is solution oriented. The purpose of considering obesity as a disease was not simply to rethink how we conceptualize obesity, rather it was to encourage action toward fighting it. Weight loss, though, is complicated, especially when used as a medical prescription. This section brings some perspective to what is at stake for large-bodied individuals receiving health care and why weight loss is not an easy solution. I conclude chapter one by considering weight loss as a medical treatment because the misconception that weight loss is easy and achievable is the essential final piece in understanding what is really at stake with medical weight discrimination, and how fat people suffer the most from this system.

In working to solve obesity, medicine has developed many treatments aimed at successful weight loss. Surgery, drugs, and lifestyle changes are the most prevalent. Surgery is the costliest of the three, and not everyone qualifies for it.⁹² Additionally, it can lead to serious side effects, such as infection, pneumonia, and complications with the lungs, that cause death in the worst of

situations.⁹² Drugs are not as expensive as surgery but can still cost a lot. They are fairly effective but are associated with negative side effects such as gastrointestinal problems.⁹² Lifestyle interventions, namely dietary changes and exercise, are shown to be the most cost-effective method of weight reduction.⁹¹ Though healthy foods are expensive, and consistent exercise requires leisure time that not everyone has, lifestyle changes are much cheaper than drugs or surgery.⁹² Outside of cost efficiency, lifestyle interventions are less invasive than other methods of weight loss and allow the patient to maintain control over the process rather than a medical professional. While people are often held responsible for their weight, it is less reasonable to expect someone to undergo invasive processes such as surgery or medication than changes to habits of food and exercise. For reasons of cost efficiency, accessibility, what physicians can reasonably expect patients to undergo in losing weight, and the fact that lifestyle changes are the most common form of weight loss, I will be focusing on modifications to diet and exercise for the rest of this section.

One of the problems with lifestyle modifications is that they are rarely successful. A 2015 study in the U.K. on patients considered obese attempting weight loss (through any non-surgical means) found that there was only a 14% chance for women and 13% chance for men to lose 5% of body weight.⁹³ The likelihood of a person considered obese reaching the BMI's normal weight category was 0.8% for women and 0.5% for men.⁹³ Part of the cause of these low numbers is that successful weight loss after lifestyle changes is very difficult to maintain. A meta-analysis looking at a range of studies about long-term weight loss maintenance after participation in programs targeting behavior modifications to diet and exercise habits found that four to five years after the program ended, individuals had kept off an average of 3.0kg of initial weight loss. 3.0kg calculates to 23% of weight originally lost in the behavior modification program, on

average, and consisted of a 3.2% reduction in total body weight.⁹⁴ While it is recommended to lose any amount of weight, a retained loss of less than 5% of original body weight is not considered very significant in health improvements.⁹⁵

As well as the difficulties with dieting, exercise poses accessibility issues for fat people. Exercise spaces such as gyms are geared toward non-fat people. Many have posters and advertisements that depict only thin people exercising.⁹⁶ Equipment is not made for fat people, and oftentimes the seats are too small and certain machines do not fit someone with a larger body.⁹⁶ Many trainers have fatphobic attitudes and are not welcoming to students of every size.⁹⁶ Another deterrent to exercise, for women in particular, is difficulties in finding appropriate exercise clothing that fits. Plus-sized clothing tends to cost more and is available in fewer styles and colors than non-plus sized clothing.⁹⁷ While online shopping has improved options, the problem persists. Women who wear plus sizes oftentimes have to wear men's exercise clothing. Crossdressing involuntarily undermines fat women's gender identities and can make them feel uncomfortable in an exercise setting.⁹⁷

In addition to the ineffectiveness of weight-loss strategies, they are psychologically damaging. Weight negatively influences mental health, and fat people are more susceptible to depression. Increased body weight can lead to greater weight self-criticism and body dissatisfaction.⁹⁸ Dieting and exercise as a prescription for weight loss also have negative psychological effects on people and exacerbates mental health issues. Dieting has been shown to lead to eating disorders, especially for large-bodied individuals. A study looking at dieting and eating disorder patterns among adults who had been considered obese as children found that 84% of participants had previously dieted and 32% developed an eating disorder at some point in life.⁹⁹ People who had dieted were three times more likely to have experienced eating disorders

than those who had never dieted.⁹⁹ Moreover, a 2018 study in young adults aged 18-24 found that people considered obese were 2.45 times more likely to have disordered eating habits than people considered normal weight.¹⁰⁰

Medicalization exacerbates problems around dieting. Doctors are sources of authority over the body, and thus their advice has power. Fat people often start diets under the advice of doctors, eventually leading to eating disorders and similarly unhealthy habits. When Amena Azeez was thirteen she slipped on a diving board resulting in extreme pain. Two years later she started experiencing chronic back pain that she would later learn originated with this fall. But her doctors were convinced that because she was large-bodied, the pain was caused by her size and told her to lose weight. Following her doctor's advisement, Azeez said, "I joined the gym and did aerobics and hard-core cardio. I was so obsessed with losing weight, I used to do 500 crunches every alternate day... I was always on some diet or another, so I was perpetually starved or binge eating."¹⁰¹ Unfortunately, Azeez's story is far too common. Undergoing diet and exercise for the sake of losing weight is psychologically risky, and medical advice to use lifestyle modifications for weight loss has caused many fat people to take up disordered practices.

One medical solution that avoids the issues of dieting is the approach of Health At Every Size (HAES). HAES focuses on maintaining physical health rather than being oriented toward the goal of losing weight. Under HAES it is recognized that different people have naturally different body sizes and there is no correct body shape.¹⁰² HAES acknowledges that diets can be psychologically damaging and ineffective, and instead emphasizes eating in response to internal body cues, rather than prescribed meals.¹⁰² Following HAES is about finding health through many facets of life without an emphasis on body size, as well as tailoring health needs to the individual instead of setting universal guidelines about what healthy looks like.¹⁰²

Dieting and exercise are the predominant solutions for weight loss, but they are not always effective and can promote stigma against people of size. Looking at healthy habits through a HAES lens promotes health separate from weight so as to mitigate many of these problems. Issues with modern weight loss methods are essential for understanding why weight loss is an extremely difficult process and that doctors should not expect it from their patients. I conclude chapter one with this concept because it unpacks the current solutions and is essential for my in-depth, yet not exhaustive, exploration of medical weight discrimination. Chapter one provides a foundation of information about how weight is currently handled medically that is important in my later exploration of reproductive care for fat women. The themes examined in this chapter are a basis for later considerations of societal fatphobia, weight exclusion in reproductive health care, and the greater social implications of everything discussed.

Chapter 2:

Taking up Space in an Oppressive World: Fatphobia in our Society

This thesis is about medical discrimination, but I find it impossible to fully explore the topic without delving into other forms of discrimination encountered by people of size. Chapter two examines some of the ways fat people encounter stigma outside of the field of medicine and the societal roots of fatphobia. Fatness is often reduced to a medical trait, but weight-based bias does not end when a person leaves the doctor's office. Thus, I find it crucial to explore non-medical forms of weight discrimination in order to give context to the experiences of women of size outside of reproductive care, as well as of the world in which these systems exist. In this chapter, I distinguish between medical discrimination, defined as exclusionary practices in medical and health spheres, and nonmedical discrimination, defined as exclusionary practices outside of medicine in the rest of the world. I use these terms for clarity in differentiating the topics of chapters one and two, but I do not mean to imply that medical and nonmedical discrimination are two separate phenomena. As I will delve into at the end of this chapter, the two are closely influenced by each other and work together to uphold systemic fatphobia.

Weight-Based Socio-Economic Disparity

Fat people, and especially fat women, experience discrimination in many facets of life. An important indicator of discrimination is income. Income inequality and fatness are cyclical in causation: lower incomes lead to weight gain, and weight gain leads to stigmatization and lower incomes. A 2018 meta-analysis found both income and weight affect each other, though when adjusting for publication bias, only the effect of weight on income remained statistically
significant,¹⁰³ meaning that being fat leads to receiving a lower income. Part of this disparity stems from employer beliefs around higher medical costs for people of size. Fat people who receive insurance from jobs tend to have lower wages due to the expected higher premiums.¹⁰⁴ Employers justify their decisions by arguing they are trying to make up costs as if every fat person has higher medical spending than every non-fat person. In reality, not all people of size will require more medical care, just as thin people with unseen illnesses can cost companies more on insurance. Medical expenditure is justification for employees to make generalizations about fat people that create wage disparities among employees of different sizes.

Discrimination in income particularly affects fat women. A 2012 study, whose results are shown in figure 5, found that participants considered non-obese earned almost 25% more annual income than those considered obese.¹⁰⁵ It also noted that men considered obese had lower income than their thinner counterparts early in their careers, but would eventually overcome that and earn similar incomes, while economic disadvantage remained for women, who continued to earn lower salaries than non-obese counterparts through all stages of their careers.¹⁰⁵ Because income is a large determinant of socio-economic status and can greatly affect life, the discrimination faced by fat people, particularly fat women, in salaries earned is crucial to understanding the experience of being fat in a fatphobic world.



Figure 5: Predicted 2008 incomes over time by gender and BMI greater than or less than 35¹⁰⁵

The contributing factors as to why fat people have lower incomes, on average, than nonfat people are indicative of societal anti-fat bias. Several studies found that people considered obese were rated generally less competent in several areas of life than those who are thinner, even when they had done nothing to demonstrate incompetence.¹⁰⁶ These judgments remained consistent coming from people of any size indicating that the fat are not exempt from anti-fat bias. Weight loss increased perceptions of competence and lowered disgust felt toward people of size.¹⁰⁶ The stereotypes around people of size are not congruent with attributes of a good worker and affect treatment in the hiring process of a job. A 2014 study asked university students to assess a job application based on resumes and photos. Participants, on average, reflected stereotypes about obesity in their opinions, rated the fat applicants as less physically attractive, and rated them significantly less employable than the non-fat ones.¹⁰⁷ Prejudice does not end at the hiring process. A 2007 study of perceived employment discrimination found that those considered overweight were 12 times more likely than those considered normal weight to perceive weight-related discrimination at work. People considered obese were 37 times more likely, and those considered "severely obese" (BMI > 35) were 100 times more likely. Women were 16 times more likely to report this discrimination than men.¹⁰⁸

Another contributing factor to income inequality is educational barriers. Fat children are at a higher risk of being bullied, regardless of other factors, than non-fat children.¹⁰⁹ A 2012 study conducted in two Connecticut high schools found that of all students who had experienced weight-based discrimination, 40-50% felt sad, depressed, worse about themselves, bad about their bodies, and angry as a result of the bullying. Students with more teasing events were more likely to report a negative impact on their grades.¹¹⁰ A 2019 study in 26 urban middle schools found that higher weight was linked to lower standardized test scores for all genders, and lower GPAs for girls, but that at schools with greater weight diversity, this disparity was mitigated.¹¹¹ Bullying and weight-related stigma in schools impede a child's education, which is very important in enabling social mobility and determining income later in life.

As well as economic impacts, anti-fat prejudice comes with psychological damage. A 2020 meta-analysis found that people who had experienced higher instances of weight stigma tended to have lower ratings of overall mental health, especially for people with higher BMIs.¹¹² Some negative mental health outcomes associated with weight-related stigma are depression, anxiety, perceived stress, anti-social behavior, and substance use.¹¹³ Weight discrimination negatively impacts SES, which causes hardships in a variety of ways, but it is important to also take into account the personal effects of societal anti-fat bias and how discrimination burdens large-bodied individuals mentally and emotionally.

Though weight discrimination is present in many aspects of life, it is relatively unprotected under the law. There are no federal laws that prohibit weight discrimination in the workplace, school, housing, or any other sphere of life, with Michigan being the only U.S. state to have state-wide anti-weight discrimination laws.¹¹⁴ While the laws in various places cover a range of discriminatory practices, none of them protect individuals from experiencing weightbased discrimination in medicine.¹¹⁴ Less than 4% of U.S. residents live in places with any sort of anti-weight discrimination legislation.¹¹⁴ See figure 6 for details on the existing laws protecting fat people's rights. Legislation is not all-powerful for improving a group's lived conditions. It is, however, a first step toward recognizing the struggles of people of size and working toward greater equality, which is a bare minimum in a country that claims all people are created equal.

		Protection Categories												
City, State	Year	Protection Terminology	Employment/Commercial Space	Housing and Real Estate Transactions	General Opportunities	Business Establishment/Public Accommodation	Educational Institutions	Home Delivery Services						
Michigan state	1976	Weight and Height	Х											
Madison, WI	1979	Physical Appearance	Х	Х		Х								
Santa Cruz, CA	1992	Weight and Height	Х	Х		Х	х							
San Francisco, CA	2000	Weight and Height	х	Х		Х		х						
Washington, DC	2000	Personal Appearance	Х	Х		Х	х							
Urbana, IL	2003	Personal Appearance	Х	Х	х	Х								
Binghamton, NY	2009	Weight and Height	х	х		х	х							

*Figure 6: Cities and states in the U.S. with weight discrimination legislation, year it was enacted, terminology of protection, and categories of protection in 2020*¹¹⁴

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Weight discrimination, especially with regard to income, is a valuable indicator of how fat people are treated in America. Though my focus in this thesis is largely on medical issues, I draw attention to nonmedical discrimination to provide context for what it is like to be fat and to document commonly held biases by employers, physicians, and people in general. Fatphobia is not a purely medical issue; it is deeply engrained in unseen aspects of our world.

Roots of Fatphobia

Now, I will turn to look at the roots of fatphobia. Here I explore how anti-fat bias is perpetuated, its intersections with gender, race, and religion, and how nonmedical discrimination is tied into fatphobia as a larger concept. This section examines where all of the issues discussed originate, and it is important in gaining a comprehensive understanding of the origins of both medical and nonmedical discrimination. Understanding the roots of the issue, especially sexism, is vital for my exploration of the societal implications of reproductive discrimination against fat women in chapter four.

The negative stereotypes that disadvantage people of size are reinforced through a variety of means. One is television. In 2013-2017 Americans older than 15 spent an average of two hours and 46 minutes per day watching TV.¹¹⁵ Its ubiquity makes television a way to quickly and effectively disseminate information or ideas. Television influences human perception of various aspects of life and reflects the ideas and biases of society. Unfortunately, fat people are rarely portrayed positively on TV. Despite 73.6% of adults older than 20 in the United States being considered overweight or obese,¹ only 24% of men and 14% of women out of 1,018 major television characters are.¹¹⁶ While 5% of women in the U.S. are considered underweight, roughly 30% of these television characters were underweight.¹¹⁶ The media does not have accurate

representations of the weight demographics of America, and depicts fat people as a minority of the country, when in reality, according to the BMI, they make up almost 3/4th of the population. The little representation that exists for people of size is not usually positive. Fat characters are generally comedic and lonely.¹¹⁷ Fat women in particular are less likely to be considered attractive, interact with romantic partners, or display physical affection on screen.¹¹⁶ A 2015 study found that half of all episodes analyzed from popular adolescent TV shows contained at least one incident that stigmatized weight.¹¹⁸ Television viewing affects people's mindsets, especially for young children. A 2000 study of 303 first to third-grade children found that boys who consumed more television were more likely to stereotype large-bodied women, and children of all genders who watched TV had higher instances of eating disorder tendencies.¹¹⁹ A 2011 study found that when shown images of people of size that negatively portrayed them, either with an unattractive photo or by depicting stereotypical behavior such as eating, people subsequently reported higher levels of weight bias, as compared to participants who were shown positive images. The finding held true even when the photos accompanied a news story that discussed weight neutrally.¹²⁰

Media portrayal can influence bias toward others, but the unrealistic body image it promotes also exacerbates internalized stigma and can have damaging psychological effects on people of size. People considered obese tend to rate their bodies more negatively than those who are thinner.¹²¹ Body dissatisfaction is especially prevalent in women more than men, and particularly large-bodied women.¹²¹ Negative self-image damages mental health. Unhappiness with one's body can lead to poor psychological health outcomes, such as depressive symptoms, lower self-esteem, and disordered eating.¹²² The issues I have discussed thus far, specifically socio-economic disparity, media portrayal, and psychological impact, predominantly target women of size because fatphobia is intricately connected to sexism. One way to conceptualize how the patriarchy has fueled hatred of fat women is through objectification. Objectification is when people (or in the context of these issues, women specifically) are reduced to their bodies and are valued not by what they offer as human beings but by how their bodies can best serve others, namely men. It is rooted in the patriarchy and is a central issue in feminist discourse.¹²³ Because of objectification, sexual appeal is a valuable commodity in women and can contribute to economic and social success.¹²³ Fat women, whose bodies the patriarchy deems unworthy, disproportionately suffer from objectification. They are disadvantaged in our world both because their appearances do not conform to unrealistic standards and because, due to objectification, a woman's body holds so much influence on how she is treated in life.

Another way that gender and sexism interplay with fatphobia is through ideas of selfcontrol. Commonly, there is a misconception that a person's weight is controllable and primarily determined by the individual, though in reality, as discussed in chapter one, a person's weight is determined by a variety of uncontrollable factors, and weight loss can be quite difficult and inaccessible. But under the assumptions that weight is controllable and that everyone wishes to adhere to skinny beauty standards, it is believed that fat people lack the self-control to lose weight, while skinny people have more command over their bodies.¹²⁴ A 2014 study found that U.S. adults who had just been given a reading saying that individuals were responsible for determining their own weight, or who already believed this statement, generally had higher levels of blame, prejudice, and internalized stigmatization than others.¹²⁵ Self-control is especially a valued trait for women, who are thought to be calm, gentle, and nurturing. They are expected to control their anger, their sexual desire, and their appetites to a higher degree than men are.¹²⁴ Existing stigma around personal responsibility for maintaining thinness is exacerbated for women because they are held to a higher standard of self-control.

Issues around personal responsibility and self-control also play out in media portrayals of different people with eating disorders. Anorexia is more often associated with people considered underweight (though in reality it can present itself in people of any size). Anorexics are viewed as victims of a terrible disease that is out of the individual's control and is a result of oppressive societal standards.¹²⁶ Conversely, people with binge-eating disorder are depicted as fat people who cannot control their eating habits and pose a public health concern to the country.¹²⁶ Though both eating disorders are products of societal issues that demand care and compassion for the individual, the different attitudes toward them prevent people struggling with binge eating from receiving the same level of understanding.¹²⁶ Stereotypes that fat people lack self-control and the belief that this trait is essential, especially for women, contribute to negative media portrayals of binge-eating disorder.

Though fatphobia is largely rooted in sexism, such as through objectification and selfcontrol, feminism has been slow to incorporate weight equality into its movement. Body positivity in feminism discourse has predominantly focused on non-fat women and the prevention of eating disorders for them when it is addressed at all.¹²⁴ In reality, because so many aspects of fatphobia stem from gender issues, it is strongly intertwined with sexism and benefits from a feminist framework. Feminism is an activist movement meant to bring equality to all genders. Fat women suffer sexism in overlapping, but different ways than non-fat women, yet their experiences are underrepresented in feminist studies. Women of size deserve to have a voice in activist movements, especially ones advocating for equality on related issues, such as feminism, and yet historically they have been excluded from such spaces.

In addition to issues of sexism, fatphobia has roots in Christian ethics that are embedded in American society and global capitalism. The Protestant ethic was a term coined by Max Weber around the turn of the 20th century to analyze the protestant roots of current-day capitalism. Weber looks at protestant values, which esteem hard work and productivity while believing laziness to be unholy.¹²⁷ But while Protestantism encourages hard work, one is not meant to enjoy the wealth that can accumulate from it, and it is believed morally reprehensible to indulge in material goods.¹²⁷ Because of the global spread of Christianity, and the number of Protestants in the wealthy class, Protestant ethics have become deeply embedded into capitalism, which is an integral part of our modern world.¹²⁷ Society values Protestant ideals of industriousness and restraint, and fatness is associated with the complete opposite. Industrialization and urbanization in the late 19th century led to a growing concern over excess consumption and greed and a worry that the world was shifting to forget Protestant values.¹²⁸ These worries set the stage for dieting trends and anti-fat sentiments in the 20th century.¹²⁸ Fat became associated with self-indulgence and a lack of self-control, which are akin to sloth and gluttony, two of the seven sins.¹²⁸ It was seen as a sinful representation of these growing fears that modern society was shirking Christian values,¹²⁸ leading to a cultural shift toward the hatred of fat people.

The interplay of Protestantism and fatphobia is also strongly related to racism. As more Africans were kidnapped and brought to the United States through the transatlantic slave trade, white Americans began to associate fatness with African "greediness."¹²⁹ Africans were believed to embody the antithesis of Protestantism and were attributed stereotypes such as gluttony.¹²⁹

Though fatphobia did not become widespread really until the late 19th to 20th century, the negative sentiment began to take form centuries earlier. Figure 7 shows an image of Sara Baartman, an enslaved woman in the 18th-19th century who was displayed in European exhibitions for her unusual body.¹²⁹ In the illustration, racist sentiments toward Black fatness are depicted through the non-fat white people pointing and turning away from Sara in disgust. Another example is from as early as 1625 when Samuel Purchase wrote that Black people he had encountered in Guinea "have no knowledge of God… They are very greedie eaters, and no lesse drinkers, and very lecherous, and theevish, and much addicted to uncleanenesse…"¹³⁰ In his writings, Purchase is directly linking negative stereotypes about fatness with godlessness as a way to denigrate Black people. Sara's experiences and Purchase's description illustrate how anti-Blackness rooted in Christian supremacy, was connected to anti-fatness, becoming a fueling factor in the movement toward fat hatred.



Figure 7: A 19th century illustration called The Hottentot Venus in the Salon of the Duchess of Berry *by Sebastien Coeure*¹³¹

Though it has been decades since fatphobia became widely spread in the U.S., it is still strongly connected to western ideals. In some places, such as among elite Nigerian Arabs, it is celebrated to be fat.¹²⁶ In America, white people on average have higher levels of anti-fat bias than Black people.¹³² Interestingly, fat white women are also more susceptible to negative stereotypes than fat Black women.¹³² Black women avoiding some of the effects of fatphobia does not mean that it affects them less than it does white women. Firstly, it is possible that Black women simply report weight discrimination less because it is overshadowed by the other forms of discrimination they face, or that fatness is normalized in their communities since larger bodies are at a higher prevalence.¹³² Reductionist stereotypes of Black women as large and nurturing also play a part in the positive associations with fat Black women.¹⁰⁷ Furthermore, because obesity occurs at a higher rate in populations of color (see figure 1A), a higher percentage of people of color are at risk of both medical and nonmedical weight discrimination than among white populations, and the combined experiences of race-based and weight-based discrimination can disproportionately burden fat people of color. Because fatphobia is rooted in racism and Protestant ideals, elite white women were the first to be held accountable to skinny beauty standards.¹²⁹ But ultimately racial hatred fuels fatphobia, and to discount this fact would be to discount the intricacies of these two systems of oppression and how fat Black women have been historically marginalized for existing at the intersection of them.

Fatphobia is caused by sexism, racism, Christian domination, and more social factors than I can describe in one thesis. A final root cause of anti-fat bias that I will explore is mistreatment by the field of medicine. Historically, fatness signified that a person had enough wealth to afford excess food and that the person was healthy and well taken care of, while thinness showed malnourishment.¹²⁶ Today when unhealthy food is cheap and exercise requires time and money, thinness is what wealthy people aspire to.¹²⁶ Medical mistreatment of weight exacerbates these negative sentiments toward fat people, by classifying all larger bodies as unhealthy, when this is not the case. There is a misconception that further understanding of weight as a biological phenomenon will decrease weight discrimination when in reality it encourages exclusionary treatment. A study from 2000 on 3rd through 6th graders found that after watching a video about how biology can impact weight that attempted to draw blame away from individuals, there was no change in the treatment of large-bodied classmates. Some of the older students were even less willing to share academic activities with their fat peers.¹³³ The children were reflecting on the world in which they live that stigmatizes illness, indicating that medicalization of obesity fuels nonmedical as well as medical weight discrimination.

Medical mistreatment of fat people is also exacerbated by social issues around weight. Doctors live in the same world as everyone else and are not exempt from internalizing bias. More than half of physicians in a 2003 survey indicated that they believed obese patients to be awkward, unattractive, ugly, and noncompliant. Over a third viewed their patients as weakwilled, sloppy, or lazy.¹³⁴ Opinions have not improved; More recent studies found that doctors generally have pretty strong anti-fat biases, to a similar extent as the general population, that impact their quality of care.^{135,136,137} These negative stereotypes are direct reflections of societal attitudes toward fat people. In cases of other marginalized identities, such as race, sexuality, disability, and age, people tend to have stronger ratings of implicit bias than explicit bias, meaning that they are not fully conscious of their bias. A 2012 study, though, found that in the case of weight, physicians had very high levels of both implicit bias mean that doctors acknowledge negative stereotypes about fat people and are more likely unconcerned with trying to mitigate their implicit bias. Societal anti-fat bias has a huge impact on medical weight discrimination by influencing the beliefs of medical authorities.

In this chapter, I argued that nonmedical weight discrimination is the source of many hardships for fat people. Its contribution to fat struggles alone makes it relevant to this thesis. In addition to this reason, though, I have included it because the roots of nonmedical discrimination illuminate truths about societal hatred of fatness and where it originates. I have examined here that fatphobia is systemic and is embedded in our culture. It is important to fully comprehend what anti-fat bias is and how fatphobia is rooted in other societal issues in order to grasp the scope of weight discrimination in IVF clinics and why it a critical topic.

Chapter 3:

When Body Size Meets Procreation: Weight's Impact on IVF Care and Treatment of Fat Patients in Reproductive Medicine

I have now explored weight discrimination in medical and nonmedical spaces. With this background, I can bring reproductive issues into the discussion. In my considerations in this chapter, it is important to remember all of the background medical weight discrimination generally because it is largely applicable to weight discrimination in IVF clinics. Before delving into the biological aspects of this chapter, I would like to reiterate that reproductive processes are not inherently gendered. Though there is research into weight's effects on fertility for all bodies, in the sections below I exclusively focus on people who have uteruses. When discussing existing literature, I may use gendered language, following suit of each study's descriptors for its participants, but when looking at general ideas I refer to people in relation to whatever reproductive organs are applicable because reproductive organs are more relevant to the biological ideas I consider than gender is. My research looks at clinics that offer a variety of fertility services, but I pay special attention to IVF because it is one of the most revolutionary reproductive technologies of the modern age. Perhaps as a result of being ground-breaking, though, it is also an extremely frustrating process that oftentimes taunts patients with hope only to leave them childless, making IVF extremely applicable in examining how reproductive discrimination is harmful.

A Brief Background on IVF

In vitro fertilization, or IVF, is a more recent development in assisted reproductive technologies (ARTs) to help infertile people conceive. In vitro is Latin for in glass and refers to the process in IVF by which egg and sperm are collected separately, fertilized in a lab, and implanted into the uterus of the person who will carry the pregnancy.¹³⁸ Though IVF is a very effective method of ART, it is also invasive and expensive. Harvesting eggs first entails ovarian induction to stimulate the production of multiple eggs, which increases the chance of having at least one viable egg.¹³⁸ Ovarian stimulation involves, in addition to several other medications, self-administering shots of hormone injection.¹³⁸ Eggs are then harvested through transvaginal ultrasound aspiration, wherein an ultrasound probe is inserted into the vagina and guides a thin needle to retrieve the eggs.¹³⁸ IVF is associated with several risks including multiple births, premature delivery, low birth weight, ovarian hyperstimulation syndrome, complications from egg retrieval, ectopic pregnancy, and ovarian cancer.¹³⁸

The first baby born through IVF was Louise Brown in 1978 in England.¹³⁹ Brown was conceived with just one embryo, and three years later the first IVF baby in the US was born using controlled ovarian stimulation to release several eggs and perform IVF on multiple embryos.¹³⁹ IVF is likely to have more success if more than one embryo is implanted, and until the late 90s, and early 2000s, it was standard practice to implant many embryos.¹⁴⁰ In 2001, 94% of IVF cycles had more than one embryo transferred.¹⁴⁰ Successful pregnancies from the transference of two embryos have a 36.7% chance of producing twins.¹⁴⁰ Three embryos have a 43.7% multiple gestation rate and a 6.5% triplet rate.¹⁴⁰ IVF increased the rate of twins and triplets in the general population. Between 1980 and 2001, the birth rate of twins was 59% higher and the birth rate of triplets or more was 401% higher.¹⁴⁰ Multiple pregnancy can lead to

increased maternal risk for eclampsia, postpartum hemorrhage, and a host of other conditions.¹⁴⁰ The maternal mortality risk is estimated to be up to three times higher for multiple pregnancies than for single child pregnancies, and the infant mortality rate is five times higher.¹⁴⁰ Due to the increase in multiple births and relating complications, in the early 2000s it became common practice to only transfer one or two embryos for IVF cycles.¹⁴⁰ Today IVF is a fairly popular method of assisted reproductive technology and accounts for millions of births worldwide.¹³⁹ While primarily used for couples with infertility problems, IVF has also opened the door to pre-implantation genetic diagnosis, a way to test an embryo for certain genetic diseases and implant only those without them.¹³⁹ Through IVF, people who would like to have genetically related children but are unable to gestate a fetus can use a surrogate womb and transfer their own embryos.¹³⁹ IVF has opened doors for people with reproductive health issues who previously would have never been able to conceive genetically related children, providing new reproductive opportunities for millions.

There are several causes of infertility for which IVF is used. One is damage to or blockage of a fallopian tube, which makes it difficult for an embryo to travel to the uterus. IVF places a fertilized embryo directly into the uterus, bypassing the fallopian tubes.¹³⁸ Ovulation disorders occur when ovulation is infrequent or not happening at all and leads to less availability of eggs.¹³⁸ IVF can help with these issues through controlled ovarian stimulation. If there is impaired sperm production or function, IVF fertilizes the eggs in a lab, ensuring that the sperm does not face problems with traveling to the egg.¹³⁸ Overall, our understanding of infertility is incomplete, and many people are unsure of the causes of reproductive issues, even after medical tests. IVF is often used in these cases when there are no conclusions to be drawn about why a person cannot conceive.¹³⁸

Weight and Fertility

Infertility is an essential concept in IVF. The Centers for Disease Control and Prevention (CDC) defines infertility as a condition wherein a couple has regularly tried to conceive for 12 months without success. The time can be shortened to 6 months if the person gestating the pregnancy is older than 35.¹⁴¹ The primary way that weight influences fertility is through the endocrine system. Adipose tissue, or body fat, produces adipokines, cell-signaling proteins that play an important role in many endocrine functions.¹⁴² Adipokines regulate androgen and estrogen production. A disorder of adipokines disrupts a variety of functions, including the levels of either estrogen or androgen.¹⁴² Hyperandrogenism is the condition wherein elevated levels of androgen prevent periods and ovulation.¹⁴² Evidence surrounding the direct link between adipose tissue and hyperandrogenism is controversial. The majority of fat people who menstruate have normal cycles, even those experiencing infertility, indicating that hyperandrogenism is not closely tied to obesity.¹⁴² However among people with amenorrhea, or the absence of any period, increased levels of androgen have been associated with large-bodied women.¹⁴² Elevated levels of estrogen can also prevent ovulation. Hormonal birth control uses synthetic estrogen to prevent ovulation and in some cases larger quantities of adipose tissue produce excess estrogen, resulting in a natural birth control effect.¹⁴³

Polycystic ovary syndrome (PCOS) is a cause of infertility that is tied to weight. PCOS is a disruption of hormones that causes ovulatory dysfunction and ovarian cysts, thus inhibiting fertility.¹⁴⁴ The condition affects between 5-10% of people with ovaries between the ages of 15 and 44.¹⁴⁴ Weight gain is both a predisposition to and symptom of PCOS. People with PCOS tend to exhibit insulin resistance, which can cause weight gain and certain genetic factors have been linked to both PCOS and obesity.¹⁴⁵ PCOS is important to consider in exploring weight's effect on infertility because of their causal relationship, as well as the high rate of the condition.

As a result of the causes discussed above, weight can be a contributing factor to infertility. A 2007 study on the time it took to get pregnant by weight group found that 75% of women considered overweight (BMI 25.0-29.9) took about three months longer to get pregnant than women considered normal weight (BMI 18.5-24.9), and 75% of women considered obese (BMI \geq 30.0) took nine months longer to conceive.¹⁴⁶ Weight is also associated with a higher incidence of miscarriage. Of women with a history of recurrent miscarriage in a 2012 study, those considered obese were 73% more likely to miscarry in subsequent pregnancies than women with a BMI in the normal range.¹⁴⁷

As well as general infertility, weight is linked with poorer IVF outcomes, however, some of the evidence surrounding this link is contradictory. A 2010 study found that in large-bodied women a lower number of mature eggs were harvested, which can be influenced by ovulatory irregularity.¹⁴⁸ A 2015 study found no difference in egg harvesting by weight among people who had encountered difficulty with it.¹⁴⁹ Due to the endocrine effects of higher adipose tissue content in fat people, they did require higher doses of gonadotropin, a hormone that induces the production of eggs and is used for controlled ovarian stimulation.¹⁴⁸ There is also disputed evidence regarding whether or not maternal weight can affect egg quality. While some studies concluded that large-bodied people undergoing IVF have poorer embryo quality, others have found no such link.¹⁴⁸ A 2013 meta-analysis found that the weight of egg donors did not affect the success of the pregnancy when gestated by people of all different sizes.¹⁵⁰ Embryo implantation has shown lower success rates in some studies, but in others, it was unaffected by weight.¹⁴⁸ Higher rates of miscarriage were generally associated with obesity, though not in all

studies. Despite contradictory study findings, the consensus surrounding how weight affects IVF, generally, is that there is no effect on fertilization rate, number of viable embryos, or embryo quality, but implantation, pregnancy, and live birth rates are lower in people of size.¹⁴⁸

The most common solution to infertility for fat people is prescribed weight loss, just as it is in non-reproductive health care. Lifestyle changes to diet and exercise are cheap compared to other methods of weight loss, and other assisted reproductive technologies pose the same problems as IVF. However, just as evidence is inconsistent about weight's effects on fertility, it is inconsistent about weight loss's benefits. While a 2017 study from Spain found that a weight loss averaging 5.4kg significantly increased the live birth rate of participants undergoing IVF,¹⁵¹ another 2017 study from Sweden, Denmark, and Iceland found that participants with an average weight loss of 6.57kg had no significant difference in live birth rates after IVF.¹⁵² Rapid weight loss, which is also detrimental to general health, may worsen IVF rates.¹⁵³ In addition to the efficacy of weight loss as a treatment to improve IVF outcomes, there are other problems with prescribed weight loss. A 2020 study found that popular diets decrease a person's BMI on average by 1 or 2 BMI units after six months, and after 12 months, the majority of the weight lost is regained.¹⁵⁴ Most people considered obese would still be considered obese after decreasing their BMI by just 1 or 2, and by the time the baby is born the parent is likely to have regained the lost weight. In addition to the problems of weight loss, it can take time, which is extremely valuable for fertility treatments. Positive outcomes in IVF are highest in people under 30 and decrease with every year of age after that.¹⁵⁵ For people in their 30s or 40s undergoing IVF, the time it takes to lose weight can worsen, rather than improve IVF results.

Weight can affect fertility, not just biologically, but through the associations between fatness, stress, and reproduction. Stress and overall lower quality of life have been linked to

infertility.¹⁵⁶ Weight stigma is damaging to mental health for large-bodied people.¹¹² The vicious cycle between weight, mental health, and reproductive issues can exacerbate infertility. A 2019 study found that pregnant people with higher incidences of weight-related discriminatory experiences exhibited more depressive symptoms one month post-partum than those with lower incidences.¹⁵⁷ Depressive symptoms among pregnant and post-partum people are linked to worse maternal health.¹⁵⁷ As I discussed in chapter one, weight-related discrimination experienced in health spheres can mean fat people receive a lower quality of care and are more likely to mistrust doctors and avoid health care.⁶⁰ The negative health effects of fatphobia apply in reproductive health care as well and put people at risk for complications.¹⁵⁸ Fertility issues encountered by people of size may be influenced by adipose tissue, but to some extent weight discrimination and stress impact reproductive functioning as well.

The data about weight, fertility, and the efficacy of IVF for large-bodied people is contradictory, to say the least. The many biological factors that contribute to weight are hard to evaluate separately and complicate this analysis further. Given the history of confirmation bias in health and weight studies discussed in chapter one, I find it likely that the data supporting weight as a hindrance to fertility is exaggerated. However, the dominant scientific opinion (according to the Centers for Disease Control and Prevention^{159,160}, and the American Society for Reproductive Medicine¹⁶¹) is that weight negatively impacts both fertility and IVF. The next section of this chapter will explore what discrimination faced by people of size looks like in IVF clinics. The lower chance of successful IVF is the most commonly claimed reason that clinics turn fat patients away, so it is important to enter into the next part of the chapter with conclusions about weight and fertility. Given that there is not enough scientific evidence to refute the claim that weight does negatively impact fertility and that this claim is believed by a majority of clinical care providers, I explore the next section under the assumption that, at least to some extent and in some cases, weight does decrease the chance to conceive a baby using IVF. While I do not believe this statement is universally applicable, it is a belief held by the bodies enacting discrimination against people of size receiving prenatal care and does not change the fact that fat women are treated unjustly in reproductive spheres.

IVF as an Exclusionary Space

This section is, perhaps, the crux of this thesis. Finally, I will explain what reproductive discrimination looks like in IVF clinics. I would like to start my analysis by turning to Gina Balzano, one fat woman who experienced great difficulty receiving fertility treatment, as well as the sentiments of other people facing similar hardships. While I will also delve into systemic issues and policies as a whole, I want to begin with one person's experience because these problems affect individual lives, and it is all too easy to forget this fact when examining systemic injustice. I will then look at various barriers to accessing IVF, and the factors that contribute to all too many people going through what Balzano endured.

Gina Balzano wanted to have kids as soon as she and her husband got married. She first visited an IVF clinic after three years of trying when she was 32 and weighed 317 pounds. At her first appointment, after asking few follow-up questions, her doctor told her that her weight was the cause of her infertility. Balzano remembers her saying, "I would never give you IVF. You're too fat. Have more sex and lose the weight."¹⁶² Because of the emotional toll of this meeting, Balzano did not visit another doctor for two years. She did eventually speak with a second specialist, who, while more sensitive in her approach, did tell Balzano she would not give her IVF at her current weight because she believed the chances of success were too low.¹⁶² Balzano

did not want to undergo bariatric surgery, but she saw weight loss as the only way she could get a doctor to even attempt IVF, and eventually had the surgery at age 37.¹⁶² She then visited a third doctor who gave her IVF and helped her to finally have a child. Though Balzano did lose weight before conceiving, her doctor is not convinced that the weight was the problem.¹⁶² Balzano and her husband remained unable to conceive a child without help even after her weight loss, and after all that time, she had thousands fewer viable, high-quality eggs than when she started.¹⁶² No one can ever be certain whether or not weight was the cause of Balzano's infertility, though the doctor who ultimately helped her conceive believes it was not. But it can be said for sure that her weight prevented her from even being allowed to get treatment. Balzano found it necessary to undergo the extremely invasive process of weight loss surgery, not to improve her fertility, but to allow her to enter a doctor's office.

Balzano is not alone in her difficulties finding quality care. A 2017 study analyzed conversations between prenatal care providers and patients by weight and found that providers asked a third fewer lifestyle questions, used fewer concern or approval statements with overweight BMI patients than normal BMI patients, gave less than half as much lifestyle information, and used fewer self-disclosure statements with obese BMI patients than normal BMI patients.¹⁶³ Overall, prenatal care providers used less patient-centered communication with overweight and obese BMI patients and rated their physician-patient relationship lower than with normal BMI patients.¹⁶³ Connections between doctors and patients are crucial for good health care practices. When people visit a physician they are entrusting another person, generally a stranger, with their body, and developing good communication is vital for ensuring quality care. Improved relationships between doctor and patient have been associated with improved functional health.¹⁶⁴

On a clinical level, people of size are denied care through subtle and overt messages that these spaces are geared toward non-fat people. Oftentimes clinics do not have medical technology, such as blood pressure cuffs, examination tables, or gowns, that fit large-bodied individuals.¹⁶⁵ Pregnancy resources are targeted toward non-fat people. One fat woman recounting her difficulties navigating prenatal health explained, "You can read *What To Expect When You're Expecting* where they're talking about a baby bump. I've had a baby bump since I was 8 years old! So, the way they explain how our bodies change doesn't affect us. We have questions that we don't know who to ask."¹⁶⁵ Prenatal information and technology that is targeted toward non-fat people creates a culture of thinness in fertility clinics, in which people of size are made to feel that they do not belong in these spaces. They may not be told directly to leave, but they constantly receive subtle messages that they are not welcome, which can negatively impact mental well-being during the already emotional process of having a child.

Another way that clinics perpetuate a culture of thinness is through advertising and images displayed on their websites. When a person is looking to access fertility treatment, such as IVF, they likely will visit the website of a clinic from whom they are looking to receive treatment. The people shown in the pictures presented subtly show what kind of patients the clinic is looking to treat and who exactly it welcomes. I looked at the websites of six well-established clinics ranging in size with 42 locations across the U.S. Figure 8 displays my findings of the body sizes of the people who appeared to have female reproductive capacities in the images on these websites (excluding those shown as health care workers). The results are drawn from my estimations of body size that define mid-size as roughly the average U.S. woman's size (which falls in the BMI overweight category), thin as smaller than that, and fat as larger than that. The data provided is not that of a comprehensive study but can give an idea of

what fertility clinic websites look like. Of the 83 women depicted in pictures on the website only six, or about 7% were fat. 82% were thin, and 11% were mid-sized, numbers that differ starkly from the 73.6% of America who weigh above the normal BMI range.¹ Five out of the six fat women displayed were actual patients giving testimonials about their experiences using the clinics, and not modeling, like the majority of the photos were. The only other fat woman depicted on any website was modeling a same-sex couple in which she, a white woman, appears not to be the biological mother of her child, who like the other mid-sized mother, looks Asian, meaning that she did not undergo fertility treatment herself. When researching fertility clinics or gathering information, fat women predominantly see pictures of thin women, which contributes to the culture of thinness described in the previous paragraph. The images subtly send a message about the kind of patient toward whom a clinic is accepting and of whom it is respectful.

Clinic Name:	Number of Locations in US:	States:	# of Thin	# of Mid- Sized	# of Fat	% Thin	% Mid- Sized	% Fat
Pacific Fertility Center of LA ¹⁶⁶	2	CA	6	1	0	86	14	0
New England Fertility Institute ^{167,}	2	CT, NY	14	1	1	88	6	6
Main Line Fertility ¹⁶⁸	6	РА	14	4	2	70	20	10
Dallas-Fort Worth Fertility Associates ¹⁶⁹	4	TX	9	0	1	90	0	10
Colorado Center for Reproductive Medicine ¹⁷⁰	22	CA, CO, GA, MA, MD, MN, NY, TX, VA	10	0	0	100	0	0
Institute for Human Reproduction ¹⁷¹	6	IL, IN	15	3	2	75	15	10
Total	42	CA, CO, CT, GA, IL, IN, MA, MD, MN, NY, PA, TX, VA	68	9	6	82	11	7

Figure 8: Representations of women of different sizes on websites of six fertility clinics on January 17, 2022

In addition to subtle messages sent through the culture of thinness, many reproductive care centers will turn away patients outright, purely based on BMI. A survey conducted in 2016

asked clinics about their recommendations, policies, and restrictions regarding patient BMI. 64.9% of clinics reported having some sort of formal policy for patients considered obese, and 84% of these have a maximum BMI limit for receiving IVF. The most common BMI cutoff was between 35 and 40.¹⁷² Even without formal clinic policy requirements, many physicians agree with upper BMI limits and will turn away patients or refuse treatment unless the patient loses weight. A 2019 survey sent to members of the Society for Reproductive Endocrinology Infertility and of the Society of Maternal Fetal Medicine found that roughly 70% of respondents supported upper limit BMI cutoffs for reproductive care.¹⁷³

Weight policies are not solely motivated by patient concern but are influenced by clinics' desires for profit maximization. In 1992 Congress passed the Fertility Clinic Success Rate and Certification Act, which forced fertility clinics to report success rates of ARTs.¹⁷⁴ The act was meant to inform patients about different treatment options and encourage fertility clinics to improve services.¹⁷⁴ Unfortunately, it also had the unintended consequence of changing clinics' practices in ways to improve numbers rather than patient care. 96.8% of respondents in a 2020 study sent to reproductive health care professionals, indicated that public reporting of data sometimes or always affects other providers' practices, and 93.9% had noticed that other providers were motivated to deny care to poor-prognosis patients to improve success rates.¹⁷⁴ The 1992 act was meant to empower patients and hold prenatal providers accountable, but data reporting can sometimes motivate clinics to turn away patients who they believe are unlikely to conceive, such as fat people.

In the spirit of American capitalism, private establishments have the right to take whatever measures, within reason, to help their business succeed. They have no moral obligations to societal wellbeing. As a private business, an IVF clinic can turn people away if it wants to maintain a high success rate to be more competitive with other clinics in the area. Capitalism, though, is not supposed to factor into medicine in this way. According to the AMA's code of medical ethics, "Physicians have a fundamental ethical obligation to put the welfare of patients ahead of other considerations, including personal financial interests."¹⁷⁵ Whether or not treating a certain patient will benefit a fertility clinic economically, the primary concern should be for the patient and not for financial gain. Unfortunately, even though clinic success rates as justification for turning away fat people who want to receive fertility care is in complete disagreement with the ethics of modern medicine, there is no regulation to prevent it from happening.

IVF clinics are not always a welcoming place for people of size, and there are few alternatives. ARTs cater to thin people. It is not uncommon for clinical studies of IVF and other ARTs to exclude people over a certain BMI from participating.^{176,177,178} Because this technology is developed and tested only on non-fat people, it is tailored to these people and does not work on the large-bodied. Currently, no technology caters to reproductive difficulties caused by adipose tissue or aims specifically to help fat people conceive. No one can say for sure that there is a way to help people of size overcome reproductive difficulties caused by weight, but there is a lack of research in this field. Technology works best for the people it is designed for, and currently, fat people are not the intended recipients of reproductive innovation.

IVF is an exclusionary practice, and fat people are not the only ones to suffer from it. There are several barriers to the technology for other groups. Firstly, it is expensive. One IVF cycle generally costs between \$15,000 and \$30,000 including medications and many people need multiple cycles to conceive.¹⁷⁹ While insurance coverage is improving, only 15 states currently require insurance companies to either cover or offer coverage for IVF¹⁸⁰ (see figure 9 for

different states' policies). The price tag is just one barrier to reproductive services among the working-class. IVF also demands the cost of time to leave work and have repeated fertility appointments, meaning people need to sacrifice hours of work and potential earnings and risk losing their jobs to undergo the procedures.¹⁸¹ Even when IVF is covered by insurance, small copays and fees can still be a significant barrier to people living paycheck to paycheck.¹⁸¹ Exclusion also comes at a physician level, just as in Balzano's case. Keisha, a low-income Black woman, describes her experience speaking to doctors about fertility after a miscarriage when she was sixteen: "They-they just-they just seem like they just didn't want me to have any kids (laughs) at all. At all. And that was sad. They, you know, they scared me into even trying to have any more."¹⁸¹ Keisha's experience as a teenager, when her doctors not only expressed their opinions that she should not have children but went so far as to try and scare her away from motherhood, prevented her from seeking infertility treatment nearly two decades later.¹⁸¹ Keisha's story is indicative of the exclusionary treatment faced by working-class and Black people in reproductive care spaces, wherein just as in the case of fat people, cultural, economic, and interpersonal barriers prevent them from receiving quality care.



Figure 9: State laws regarding insurance coverage of infertility treatment as of 3/12/2021.¹⁸⁰

Fertility clinics are unwelcoming to other marginalized groups as well, such as LGBTQ+ communities. Historically, queer people have faced barriers to parenthood in many ways and ARTs are no exception. Clinics send messages all the time that the clients they expect to serve are cisgender heterosexual couples, such as through paperwork that refers to a mother and a father or images on websites and advertisements.¹⁸² These spaces are especially exclusionary to transgender people through the conflation of gender with sexual organs and constant misgendering through forms and assumptions.¹⁸² Clinics also tend to lack information about LGBTQ+ health and cannot provide quality care tailored to these patients' needs.¹⁸³ One couple who experienced reproductive exclusion in Canada are Sam and Rob, two trans men who decided to visit a fertility clinic to help them conceive a child using donor sperm and with Sam as the gestating parent. As Sam recalls, "[The doctor] just assumed that my partner was a nontrans guy... and that I was a woman. And so he said 'Have sex today, have sex tomorrow, have sex the day after. And then come back and see us.¹¹⁸² Sam's doctor was uneducated on trans health and made cis-normative assumptions about his partner's body. As a result, he was unable to understand Sam's needs and what he could offer Sam as a health care provider. The doctor's advice to leave the clinic and have sex is reminiscent of what Gina Balzano was insensitively told when she first visited a fertility doctor. In both situations, the physician saw a person who did not fit into the typical clientele and refused to offer them medical services, advising them to conceive non-medically through sex, a method which had not worked in one case, and was impossible in the other. Fat people may have some unique experiences due to the complicated background of medical weight discrimination, but general sentiments of exclusion and lowquality care are shared by other marginalized groups.

A key difference between the treatment of people of size and low-income or LGBTQ+ people in reproductive spaces is that while it is recognized that these identities in and of themselves do not biologically affect reproduction (although factors related to SES can influence fertility), weight is believed to have a direct impact on IVF success rates. It is a more complicated issue than others of discrimination, but fat people are still unnecessarily excluded from IVF clinics, which is apparent when comparing the treatment of women of size with the treatment of older women. Age is recognized to decrease reproductive outcomes to the extent that the definition of infertility is changed from a year of regular intercourse without conception to six months for women over 35.¹⁴¹ As people age, success of insemination rates decreases, and egg quality decreases.¹⁸⁴ A 2012 study found that women considered obese with a history of miscarriage have a 73% increased risk of subsequent miscarriage, while women of all sizes with a history of miscarriage who are over 35 have over 100% increased risk of subsequent miscarriage, than those under 35.¹⁴⁷ Age affects infertility more than weight, however, older women are not just allowed into clinics, but welcomed. Clinics often cap the age allowed for using one's own eggs between 42 and 45 but will allow patients to use donor eggs until the age of 50, sometimes even beyond.¹⁸⁵ IVF is a technology designed to help people with infertility conceive a biological child. Age is a cause of infertility, and thus older women are ideal candidates for treatment. Weight, however, which is also believed to be a cause of infertility, is a barrier to women seeking IVF. The difference between weight and age is that older people trying to conceive tend to be wealthier and more highly educated than people who have children young,¹⁸⁶ while, as I argued in chapters one and two, fat women are marginalized both within medical spaces, and in the rest of the world.

The Meaning of Biological Reproduction

Now that I have laid out what reproductive discrimination looks like for fat women, it is important to understand the significance of having a biological child, and why denial of this experience can be very difficult. Different people have different feelings about having children and starting a family, but people who are willing to put the time, money, and energy into IVF tend to care very deeply about wanting biological children. The personal and emotional nature of fertility care is one of the reasons that denial from receiving treatment is difficult for fat people, so it is an important concept to understand in gaining a comprehensive view of weight discrimination in IVF clinics.

In all of human history, people were at the mercy of biology in allowing them to conceive children. The rise of ARTs, though, has brought about new questions around what people are entitled to in accessing reproductive technology. The United Nations' Universal Declaration of Human Rights states, "Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family."¹⁸⁷ This recognition of family making as a human right denotes how important it is to many people. The language, though, is vague about which methods one has a right to use or whether a person has a right to a biological child as opposed to an adoptive one. Moreover, it is clear that the right to a family has limits, for example, one cannot steal a child even if that is the only way for them to start their own family. Though this human right is not all-encompassing, its designation as such does put IVF in a different category than, say cosmetic surgery. While neither IVF nor cosmetic surgery is required for survival or good health, IVF is for the purpose of founding a family, a human right according to the United Nations, while cosmetic surgery is for physical improvements and is not considered a human right.¹⁸⁸ The 15 states that mandate insurance to cover or offer IVF, as shown in figure 9, is by no means a lot, but it is more than ever before, and it is steadily increasing. These laws are representative of changing societal attitudes toward IVF. What once was a rare procedure is increasingly seen as necessary, and the government wants to make IVF more accessible because they understand what it can mean to people to use it.

Family making is well-established to be important for humanity and there are several evolutionary and psychological explanations for why humans care about biological reproduction. On a broad scale, there is a clear evolutionary incentive to have children to continue the species. For individuals, there are several theories as to why people choose to reproduce. One theory is that people tend to fear death and long for immortality. While no one can evade death, biological offspring is one way to pass down a genetic legacy.¹⁸⁹ Another explanation is that humans have a biological desire to nurture, and having babies fulfills this.¹⁸⁹ Familial support is also important to the survival of the individual as well as the species. When children are young, parents feel an

evolutionary desire to care for them as that gives the children greater chances of survival,¹⁸⁹ but as parents and children both age, children begin to feel the need to care for their elderly parents.¹⁹⁰ Having children is a way to ensure that care will be provided later in life.

The pressure to reproduce comes from not just evolutionary instincts, but society, and is especially prevalent for women. Cis women tend to feel this pressure in many areas of the world, beginning even as young girls. In her TED talk about choosing to never have children, Christen Reighter explains how she felt coercion around reproduction while growing up:

"One persistent concept that I observed existing in our language, in our media, was that women are not only supposed to have children, they are supposed to want to. This existed everywhere. It existed in the ways that adults spoke to me when they posed questions in the context of 'when.' When you get married... When you have kids... And these future musings were always presented to me like part of this American dream."¹⁹¹

Reighter describes how even before she was old enough to make her own decisions about reproduction, it was assumed she would fulfill her womanly duty of having kids. The pressure to have kids was tied into the "American dream" as a part of the ideal white middle-class nuclear family that women are meant to aspire to. Indeed, Western society does construct motherhood, specifically biological motherhood, as essential for femininity in many ways.¹⁹² Career achievements are increasingly valued, but evidence suggests that childbirth is still more heavily tied to successful womanhood.¹⁹² As a result, women who do not have children tend to experience stigma and exclusion for their decision.¹⁹² Gendered pressure does affect people's decisions to undergo IVF. Nan, a woman struggling with infertility, recounts, "for me [infertility] was a lot about grieving not being able to experience pregnancy and childbirth. Because I tied that so much into my identity as a woman."¹⁹³ For Nan, the narratives around femininity and motherhood influenced her sorrow around her infertility, and her subsequent decision to undergo ARTs and try to have a biological child so she could experience pregnancy and childbirth.

Adoption is a way to achieve many of the goals of family making while avoiding the stress of ARTs, but many couples do not consider adoption seriously for a variety of reasons relating to the medicalization of infertility and pronatalism, which is the promotion of having biological children. Before ARTs, a couple faced with infertility could either remain childless or choose adoption; there were no medical alternatives. The medicalization of infertility arose when treatments were developed to combat infertility and adoption lost its status as the primary method.¹⁹³ One of the reasons couples cite for choosing medical solutions over adoption is the value of having a genetic connection with their child, which some believe is "better" than an adoptive connection.¹⁹³ Common reasons given for this preference of biological ties to adoptive ones are the belief that genetics highly influence who a child will be, wanting a child who will look like their parents, and the desire to pass down a sort of biological legacy of both parents.¹⁹³ In addition to pronatalist these sentiments, couples are often pushed toward medical solutions as the normative way to resolve childlessness. Doctors exacerbate this trend with a tendency to encourage medical treatment over non-medical solutions such as adoption.¹⁹³ Couples also cited misconceptions around adoption as reasons for choosing ARTs, for example, the cost of adoption, the wait times for a child, and the lack of control over the process, when in reality the cost of ARTs is generally higher, the wait times longer, and while they can give a sense of control, many people come out of the process still involuntarily childless.¹⁹³ The medicalization of infertility is a contributing factor in many people's decisions to choose ARTs over adoption and whether or not the reasons are accurate or truly beneficial to an individual, it is important to understand the context of medicalization that drives people toward IVF.

While evolutionary, psychological, and societal explanations can give some theories as to why people feel strongly about having biological children, they are by no means true for every

individual. There is also evidence that in modern society people find new ways to fulfill their desire to pass down a legacy, such as through an impactful career,¹⁸⁹ or satisfy the need to nurture with non-biological relationships; many cis women feel unaffected by the pressure put upon their gender to reproduce; while some people choose not to adopt for the reasons described above, it can be a meaningful road to parenthood for many families. It is important, though, to understand why those who use ARTs feel very strongly about having biological children, and that barriers to IVF are extremely hurtful for these people. The emotions tied into parenthood, which can cause people to take any measures to have children, put reproductive discrimination into a different category than other types of discrimination. Upon reflecting on her decision to undergo weight loss surgery, Balzano says, "I was at the point where I would have cut off a limb to have a baby. So fine, why not my stomach?"¹⁶² Balzano was desperate to have a child, as many people are, and was willing to go to any extremes to make this dream come true. People who want to conceive biologically are in a unique position to continue to interact with an insidious system that takes advantage of them because they have no good alternatives for achieving something so meaningful. As Dorothy Roberts says, "It is precisely the connection between reproduction and human dignity that makes a system of procreative liberty that privileges the wealthy and powerful particularly disturbing."¹⁹⁴ I find that this quote perfectly highlights why reproductive discrimination is such a sensitive issue, and why it is so important to fight against it. It does not deny its victims of anything trivial, but rather of a right that is intertwined with, as Roberts says, human dignity.

In this chapter, I argued that fat people are systemically discriminated against when receiving IVF care. I looked at current scientific understandings of weight and fertility and then focused on individual experiences of IVF exclusion, as well as what biological reproduction means to people. In the construction of my argument, I have highlighted an infringement on the right to have children. Reproductive rights movements, which were historically led by white women, have largely centered around the pro-choice movement that argues for the universal right to access abortion.¹⁹⁵ While abortion is a very important issue for reproductive equality, it is not the only way that injustice occurs. Reproductive justice is a movement that has developed with the intention of centering voices of all people with uteruses and expanding the scope from the single issue of abortion to encompass more of the interconnecting facets of reproductive justice as "(1) the right to have a child; (2) the right to not have a child; and (3) the right to parent the children we have, as well as to control our birthing options, such as midwifery."¹⁹⁵ I find reproductive justice applicable in exploring weight discrimination in IVF clinics. Though this issue is not included in the pro-choice movement to empower the decision to not have a child, it is included in reproductive justice through the infringement on the right to have a child, which, as I have discussed in this chapter, is a pressing issue for fat women facing infertility.

Chapter 4:

Social Constructions of Motherhood and Modern Significance of Reproductive Discrimination

This final chapter boils down all of the topics discussed and pulls in larger societal implications. In chapter four I look at motherhood, eugenics, and frameworks around these concepts developed for other groups to ultimately draw my own conclusions about weight discrimination in IVF clinics. The analysis done here is based on all of the evidence discussed in previous chapters but has wider assumptions embedded into it about fat women and what reproductive discrimination means in the modern era.

Conceptualization of Motherhood

Motherhood is one of the most highly valued and highly criticized roles a human can undertake. In the last section of the previous chapter, I touched on why many women desperately want to have children and what motherhood means to them. Motherhood is an extremely important construct, not just to individuals, but to society as a whole. Countries all over the world celebrate Mother's Day annually in honor of the women that give so much energy, time, and love to their children each day. In a statement released for International Day of Families in 2009, the then-acting Secretary-General of the United Nations Ban Ki-moon said, "Mothers play a critical role in the family, which is a powerful force for social cohesion and integration. The mother-child relationship is vital for the healthy development of children."¹⁹⁶ Because a mother's role is understood to be crucial in bringing up the next generation, and because of patriarchal control over women, motherhood is a highly studied and criticized construct.
The scrutiny on motherhood reflects bias in who is believed to best fulfill this role. Norms placed on mothers have historically been tied to social class. With the rise of industrialization in the 19th century, women started to seek work outside the home and the image of the full-time stay-at-home mom began to be revered as it was no longer the default job for women.¹⁹⁷ The villainization of mothers who worked also arose at this time and unequally targeted low-income women of color; at the turn of the 20th century, married Black women were four times more likely to work than married white women born in the U.S.¹⁹⁷ These negative sentiments were upheld by governmental policies that did little to provide child care for working mothers and limited employment options for women.¹⁹⁷ Throughout the 20th century, the image of the "good mother" arose in contrast to that of the "bad mother." The "good mother" was a patriotic, Christian, middle-class white woman who was willing to make sacrifices for her children. The "bad mother" was a young working-class woman of color who had kids irresponsibly.¹⁹⁸ These judgments were often contradictory; while middle-class white women were revered for having many children, poor women of color were scorned for burdening society with children they could not support.¹⁹⁸ Images of good and bad mothers persist today. The associations are less overtly classist, but inequity remains in passing judgments on mothers without considering their individual situations and personal needs. Mothers are expected to shelter their children from the cruelties of the world, but rarely is it acknowledged that they live in the same world and suffer from the same cruelties. Motherhood, as an experience, is stratified.

Due to similar associations with weight and class, motherhood moralities condemn the fat along with the poor. Working-class people are attributed negative stereotypes such as lazy, immoral, and incapable of resisting urges. ¹⁹⁹ This rhetoric reinforces the idea that poverty is due to a failure of the individual, rather than indicative of societal issues. The stereotypes of poor

people are also reflective of anti-fat stereotypes that link people of size to gluttony and lack of discipline.¹²⁶ Fatness is also misconstrued as a result of personal responsibility, as examined in chapters one and two.

Fat people and working-class people endure similar misconceptions that blame personal deficiency for their conditions, and thus fat people also suffer from the exclusionary characteristics of motherhood that were put in place in the 20th century to villainize poor mothers. These stereotypes are antithetical to constructions of ideal motherhood, which embodies the traits generally associated with thin middle-class white women. While mothers are meant to be virtuous and to put others first, fat people are thought to be "weak-willed" and "lazy."¹¹⁷ Common stereotypes attributed to people of size are inactive, lazy, sloppy, undisciplined, and unhealthy, as well as a perceived lack of self-care. These attributes are more strongly associated with women than men.²⁰⁰ A good mother is not supposed to be lazy as she is meant to go to whatever extremes necessary to take care of her child. She is not sloppy, as she is meant to be clean and organized so as to keep a good home. A mother is supposed to discipline her child, and therefore should not be undisciplined herself. She is meant to keep a child healthy and thus should not be unhealthy herself. Stereotypes of fat women as irresponsible, selfish, and unable to care for themselves are opposite to the societal ideals of a good mother who is supposed to be selfless, caring, and hard-working.

Constructions of motherhood exclude fat women because of medicalization explored in chapter one that associates fat women with unhealthiness, and especially because of the deeply rooted societal dislike of people of size that I discussed in chapter two. Motherhood is also a central factor in the conditions that lead to exclusionary IVF treatment, as looked at in chapter three. In the next section, I turn to eugenics. The beginning of my discussion does not focus as much on motherhood, but this concept cannot be forgotten or ignored because it is essential to my argument later on and is key to the final conclusions of the thesis.

Social Eugenics as a Concept

In expanding upon motherhood and how society dictates who is fit to parent, I will now turn to eugenics, a movement that has insidiously interplayed with reproductive rights throughout the previous century. I will briefly explore the history of eugenics with an emphasis on how it has evolved to become what I term social eugenics. Eugenics is the idea that people should take control of evolution and improve the human race by encouraging reproduction for people with "desirable" attributes and discouraging reproduction for those with "undesirable" attributes. Originally, eugenics was rooted in directly heritable traits (or traits that were thought to be directly heritable). Social eugenics, though, expands upon the original definition and is the concept that eugenics can be implemented to rid society of attributes that may or may not be associated with genes, but that are believed to be passed down from parent to child through upbringing. Genetic inheritance may still be a contributing factor, as biology and socialization have a complicated relationship, but the key concept is that social inheritance also comes into play. While the original eugenicist idea of limiting the reproduction of certain groups to prevent the spread of certain traits has remained the same, social eugenics expands upon its predecessor to be much more applicable in the modern world that better understands the balance and interplay of nurture and nature in child development.

Eugenics is a word coined by Francis Galton, a younger cousin of Charles Darwin, in the 1860s and 70s. It stems from the Greek words meaning "good" and "birth," or roughly, "noble in heredity."²⁰¹ Galton believed that more recent developments in human society, such as the desire

to help the sick and weak, were impeding human evolution by preventing natural selection. His theories of eugenics were strongly rooted in racist and classist ideas that wealthy white people were genetically superior to others.²⁰² Eugenics took off as a movement in the late 19th to early 20th century. Its supporters wanted to take control of human evolution by dictating reproduction. Eugenics operated to encourage the reproduction of groups deemed desirable (almost always wealthy and white people), as well as discourage the reproduction of groups deemed undesirable (poor people, people of color, certain ethnic groups, and the disabled were primarily targeted). The U.S. implemented laws restricting those deemed "epileptic, imbecile, or feeble-minded" from marrying.²⁰² By 1927, 24 states had laws allowing forced sterilization, primarily of convicted criminals and mentally disabled people. California was one of the worst states, performing 9,930 sterilizations and castrations between 1907 and 1935.²⁰² Outside of the U.S., eugenics became a prominent ideology fueling the Nazi killings of six million Jews in World War II. After details of the Holocaust were more widely known, eugenics became a dirty word, though American sterilization policies continued until the 1974 case Relf v. Weinberger ruled that adults must give informed consent to be sterilized.²⁰²

As the name implies, eugenics is focused on genes and eliminating traits that could be inherited. However, the prominent ideology of eugenics focused on eliminating poverty, a trait that we now understand to result from a variety of social factors, and not genetics, as was believed at the time. Eugenics against the poor stemmed from underlying resentment toward the use of resources to fight poverty, which led to increased pressure to find a solution to it.²⁰³ Common sentiments were that poor people were somehow inherently less moral than the middle or upper-class and that they were a drain on society.²⁰³ Eugenics offered a solution in which the government could breed out the poverty-causing traits. Many people examined the heritability of

poverty, including the famous study of the Jukes. The Jukes is a pseudonym for a specific impoverished extended family, many of whom were incarcerated during their lives.²⁰⁴ Richard Dugdale originally began this study in 1875 and looked at 709 members of the Jukes' family, but his work was continued by researchers after him.²⁰⁴ Dugdale's work was a source of much debate on the effects of genetics and environment in determining wealth, mental capacity, and criminality.²⁰⁴ Arthur Estabrook, who in 1915 studied 2,820 people, all supposedly related to the Jukes, concluded that:

"The social reformer and the student of eugenics must see that, no matter what the degree of perfection to which we raise the standard of environment, the response of the individual will still depend on its constitution and the constitution must be adequate before we can attain the perfect individual, socially and eugenically."²⁰⁴

Estabrook stated that while environmental factors may have an impact on wealth, the kind of person someone will turn out to be is ultimately dependent on a person's "constitution," or innate genetic traits. Today, it is widely recognized that poverty is not a genetic trait, but rather a result of complicated social conditions. Even though poverty is not genetic, it still fueled eugenics. The belief in and of itself that a certain trait can be passed down by generations, was enough to incite eugenic actions such as forced sterilizations, as was experienced by tens of thousands of poor people in the United States.

Though eugenics as a movement lost popularity after World War II, restrictions on the reproduction of certain groups have remained. Black people are especially targeted by reproductive discrimination, as illuminated by the criminalization of drug use during pregnancy in the 1980s and 90s. Crack cocaine gained popularity in the 1980s, as a form of cocaine that, contrary to the typical white powdered cocaine, could be smoked for an instantaneous high and was cheaper.²⁰⁵ Crack was mainly associated with impoverished areas, and thus made a great candidate for the War on Drugs, as a way to prosecute low-income, generally Black and Brown

people on drug charges, while protecting wealthy, generally white, powdered cocaine users.²⁰⁵ The media contributed to the fearmongering of crack, portraying it as a drug that was instantly addictive and turned its users violent while glamorizing cocaine as a party drug for the rich.²⁰⁵

Among those prosecuted for crack usage were pregnant mothers. Crack can have negative health effects on fetuses when taken during gestation, resulting in babies with low birth weight, pre-term delivery, placental displacement, and smaller head circumference.²⁰⁶ However, gestational alcohol consumption has been shown to have much worse health outcomes on fetuses than crack, leading to physical malformations and mental deficiencies.²⁰⁵ Today, alcohol is used by roughly 9% of pregnant people, compared to 6% of pregnant people who use any illicit drug (marijuana, prescription medications, cocaine, hallucinogens, inhalants, or heroin).²⁰⁷ Cigarette smoking, as well, has been more closely linked to spontaneous abortion and sudden infant death than crack,²⁰⁵ and is also associated with low birth weight, preterm birth, and long-term cognition effects. Almost 16% of pregnant people reported smoking cigarettes during pregnancy.²⁰⁷ Crack cocaine was believed to have long-term developmental effects, though it has now been shown that adolescents who were exposed to cocaine during gestation have the same abilities in inhibitory control, memory, and receptive language as those not exposed to cocaine.²⁰⁸ The difference between crack usage and alcohol or cigarettes is that crack was used primarily by Black pregnant people, while alcohol and cigarettes were used primarily by white pregnant people (see figure 10). Though cocaine has less severe effects on fetuses and was ingested less frequently, it was a crime to use while pregnant, while alcohol and cigarette usage are not. Prosecutions of women consuming drugs or alcohol during pregnancy reflected neither the severity of the effect on the fetus, nor the frequency of occurrence, but rather they reflected the racial bias that underscored the War on Drugs.



*Figure 10: Drug usage by type and race among pregnant people who indulged in any substance during pregnancy in the year 1992, in the midst of prosecutions of pregnant drug users.*²⁰⁹

The criminalization of crack-addicted mothers was less a statement about drug usage than it was about reproductive rights. Rather than facing drug charges, people caught using drugs during pregnancy have been charged with distributing drugs to a minor, child abuse and neglect, reckless endangerment, manslaughter, and assault with a deadly weapon.²⁰⁵ Using drugs during pregnancy increased the chance that one will be charged for a drug-related crime, and also increased the punishment.²⁰⁵ At the time, the conviction of distribution of drugs or child abuse was a felony, but in most states conviction of drug use was a misdemeanor, meaning that drug use during pregnancy would lead to longer jail time or greater fines than drug use without being pregnant.²⁰⁵ Additionally, the crime in these cases is not simply using drugs, but also the state of being pregnant. If the defendant chose to abort the fetus, the charges would disappear.²⁰⁵ Some judges also offered pregnant drug users the choice to use birth control, oftentimes the Norplant arm implant, to shorten their prison sentences or fines.²⁰⁵ Though technically these people could choose to not take the implant, many had older children and could not afford a larger fine or a longer time in prison. Pregnant people being prosecuted for drug use often had no choice but to take the Norplant birth control that they could not remove without the help of a doctor, which is reminiscent of forced sterilizations during the height of the eugenics movement earlier in the 20th century. This new form of eugenics, hidden under the guise of the War on Drugs, unjustly criminalized pregnant Black women for reproducing and forcibly temporarily sterilized them through the use of birth control.

The central issue of criminalization of drug use during pregnancy was bad motherhood. Crack was viewed as the antithetical drug to a good mother. In 1989, when fears surrounding cocaine-exposed children were rampant, a nurse from San Francisco General Hospital said, "The most remarkable and hideous aspect of crack cocaine use seems to be the undermining of the maternal instinct."²¹⁰ News stories reflected this nurse's view, depicting these mothers as irresponsible and selfish for prioritizing their love of crack over their children. They were sometimes shown as prostitutes, trading sex for drugs, and crack was said to have properties that destroyed natural motherly impulses.²⁰⁵ Fearmongering also occurred over the so-called "crack baby" that courts were supposedly protecting and the influence their "evil" mothers would have on them. At times, the newborn baby was seen as a victim, often shown crying in a crowded hospital, but there also arose predictions of what would happen when "crack babies" grew up.²⁰⁵ Children exposed to cocaine during pregnancy were believed to have developmental impacts later in life, though, as previously mentioned, more recent studies have shown that this is not the case.²⁰⁸ It was believed that these babies would require extensive hospital care, overwhelm the foster care system, deplete public school resources with their special needs, and later in life

become criminals and people dependent on welfare.²⁰⁵ Supposed concern for drug-exposed babies was a thinly veiled hatred toward the Black and low-income mothers, and the fear that the children would grow up to be just like them.

The case of criminalization of crack usage during pregnancy is indicative of what reproductive discrimination can really mean. Black women were equated with racist stereotypes such as sexual promiscuity and selfishness, especially those who used drugs.²⁰⁵ These stereotypes did not denote good motherhood, and there was a general fear that these women would raise children to have these same negative attributes the mothers. The restrictions put on Black pregnant women in the 1980s and 90s were a way of preventing a certain group from having children that were believed would inherit undesirable traits (i.e. the infamous "crack babies") from their parents, which is the exact underlying ideology that fueled the eugenics movement earlier that century. The discrimination against these low-income black mothers is an example of social eugenics, in which restrictions are put upon reproduction for groups of people that are deemed bad mothers who will have children at, what is believed to be, the detriment of society. Race is a directly heritable trait, but the infringement upon reproductive rights in the case of pregnant crack users was based upon highly racist ideas of Black women's mothering abilities and the types of people these babies would grow up to become in addition to passing down the genetic trait of Blackness itself. While environment was believed to have a greater effect on children than previously thought, the same fears that offspring would inherit negative traits from parents (either through genetics or parenting) kept reproductive discrimination alive long after eugenics as a word became taboo.

Social eugenics is not an experience unique to Black women. The reproductive discrimination I explored for other groups at the end of chapter three offers more examples of

exclusion from parenthood. Reproductive barriers are put in place for low-income women, like Keisha, because they do not fit the image of an ideal mother. A 25-year-old poor white woman named Jodi describes her experience with reproductive health as a teenager when her Social Service workers made her start birth control:

"Even though I was – I was technically a virgin when... I started [birth control] but it was – I don't know – something about... they don't want their kids to go out and have a baby or something. I don't know... So that was one of the agreements, you know, for me getting, you know, going to the health clinic if I would get on birth control even though I was still a virgin."¹⁸¹

Jodi now attributes her current reproductive difficulties to her six years of coerced birth control usage. She did not seek medical attention for infertility because this negative experience when she was young deterred her from wanting to ever visit a reproductive health specialist again.¹⁸¹ Jodi was forcibly coerced onto birth control, not because she was sexually active or at risk of having an unwanted pregnancy, but because her Social Service workers saw her as an unfit potential parent simply because she was one of "their kids," meaning they limited her reproductive freedom because she was poor. While most people would agree that teenagers are not ideal parents, the difference is that wealthy teenagers are never put into Jodi's situation. Her experience is a direct result of her SES, and of the field of reproductive medicine deciding that she was not deserving of a biological child.

Discrimination against LGBTQ+ people is another example of a group excluded from parenthood due to assumptions about who is or is not fit to have children. Due to gendered associations with reproductive functions, parenthood is strongly associated with a cis mother and a cis father in a heterosexual relationship. The heteronormative family model is thought to be ideal, and any family that strays from this image is viewed as abnormal and unfit to raise children.¹⁸² One of the arguments against queer parenthood is the idea that queer parents raise queer children, which is controversially believed, less so now, but especially in the 1990s and 2000s.^{211,212,213} One way that LGBTQ+ people have been historically barred from parenthood is through custody battles. Heidi and Stephanie are a queer couple, both cis women, who visited a clinic in Canada to help them conceive a child. They wanted to use IVF to extract an egg from Stephanie and implant it in Heidi's uterus, hoping that this way they would both have biological (if not genetic) ties to their child and would not need to worry about custody should anything happen.¹⁸² Though one of the main reasons they were using IVF was to ensure joint custody, shortly before the embryo transfer Stephanie was asked to sign several forms waiving her parental right.¹⁸² Heidi and Stephanie's experience illustrates how LGBTQ+ parents face barriers to securing parenthood that historically affect queer parents. Notions about who is most fit to raise a child and the idea that LGBTQ+ parents might pass down traits considered undesirable, such as homosexuality, encourage barriers to queer parenthood. IVF opens doors that were unimaginable just a few decades ago, but queer couples still struggle for the same parental rights as straight couples. Innovations in reproductive rights do not end LGBTQ+ family struggles because the source of these struggles is latent homophobia and transphobia about who is considered an ideal parent, and until the stigma is dealt with, there will always be inequalities in reproductive access for queer people.

I have argued here that the barriers to reproductive health for Black, poor, and queer people illuminate a phenomenon called social eugenics. I explore these different groups to provide a well-rounded understanding of social eugenics and reinforce the idea that this concept is not unique to one group, but rather is applicable to all forms of reproductive discrimination. I compare this issue to the infamous eugenics movement both to shed light on the iniquity of infringement on procreative liberties, as well as to indicate how deeply rooted oppression is.

Social Eugenics Against Fat Women

Social eugenics against other groups reveals truths about reproductive discrimination that can be applied to modern weight discrimination in IVF clinics. As explored in the first section of this chapter, large-bodied women are associated with many negative stereotypes, including selfishness, laziness, and irresponsibility, which are not conducive to good motherhood. They are believed to pose a risk to the innocent fetuses they will carry in their bodies. One fat woman, remarking upon how her obstetrician discussed her weight said, "And it was all based on the bigger you are, the more trouble you are. The bigger you are, the more dangerous you are to your child."²¹⁴ This woman's experience is reminiscent of rhetoric around pregnant drug users. The desire to limit reproductive rights for a specific group is disguised as concern for the well-being of the fetus. In reality, the systems in place to infringe on the reproductive liberties of Black or fat people do not care about the well-being of the child, who they fear will grow up to be just like their parents, so much as they care about restricting the rights of the group in question.

Fears of fat mothers' irresponsibility do not end with the birth of a child. In the past few decades, there have been instances of parents losing custody over their children due to the child's weight.²¹⁵ Child welfare authorities get involved in these cases because a child's fatness is incorrectly seen as a parenting failure that can be remedied in foster care,²¹⁵ when in reality weight is determined by an extraordinary number of biological, environmental, and social factors, and the stress of being removed from one's parents is not healthy for the mind or body. Nevertheless, the situation is often reduced to the case of a fat parent, typically the mother, passing down their undesirable trait of fatness.²¹⁵ In discussing a specific family court case over the weight of the child in 2007, Lindsey Murtagh wrote, "Increasingly, parents, showing little

control over their own weight, have demonstrated they are ill-equipped to assist their children in developing healthy eating and exercise habits."²¹⁶ Murtagh is expressing the belief that parental weight is an indicator of a lack of personal responsibility and self-control, and that the weight of a child is a direct result of neglect due to all of the negative traits attributed to fat parents, specifically fat mothers.

These examples of fat mothers viewed as harmful to their children and blamed for their child's weight are examples of how social eugenics plays out for people of size. It is believed that mothers, either through genetics or parenting, will pass down their fatness, and all the negative stereotypes associated with it, to offspring. Barriers put in place to prevent women of size from receiving reproductive treatment are meant to limit the passing of this specific trait to the next generation, whether through biology, bad parenting, or a combination. Fat people are victims of social eugenics. When medical professionals, researchers, clinic administrators, and institutions think about the patients they would like to help become loving and caring mothers, they do not picture fat women. Their implicit biases and assumptions about fat people encourage them to deter these women from receiving quality care. But these people likely do not explicitly think about how fat women will raise fat children who are selfish, lazy, and irresponsible, and they are not purposefully perpetrating eugenics; they are merely reflecting the ideas of the society in which they live, a society that is hostile toward fatness and wishes to prevent its intergenerational spread.

There is a specific image of the type of woman that society deems fit to be a mother. The previous three chapters have explored how fat people do not fit into this image and are excluded from motherhood when possible. In chapter one, we see that fat women's bodies are overly medicalized and seen as problematic: not the best environment in which to grow a child. Chapter

two expands on this issue with the nonmedical difficulties of being fat and how the social experience of fatness influences and is influenced by medical weight discrimination. Chapter one and two are essential in understanding the systemic fatphobia that leads to social eugenics against people of size. In chapter three I look at how the issues in the first two chapters play out in reproductive spaces and what fertility care, or lack thereof, looks like for people of size. Chapter three is about the mechanics of social eugenics and is essential for examining what this phenomenon really looks like. Reproductive discrimination against people of size may not directly tell fat people that they should not pass down their traits, but it is a result of the weight stigma that permeates medicine and the world as a whole and leads to reproductive clinics having a very specific idea of who should get to use their services and who should get to be a mother. Unfortunately, due to the negative stereotypes and medical mistreatment surrounding weight, fat women are all too often unjustly excluded from motherhood.

Social eugenics is a framework for understanding the impact that fatphobia against mothers has on individuals and society as a whole, as well as the deeply rooted hatred of fat people that led to modern-day conditions. In this chapter, I have argued that constructions of women of size leave them inadequately positioned for good motherhood, according to societal beliefs. Stigma against fat women takes action in reproductive health care whenever the opportunity is presented to limit the spread of fatness by preventing women, who are believed to pass the trait to offspring through poor parenting habits, from receiving adequate fertility care. New eugenics through the infringement on reproductive rights for fat women is representative of deep-seeded fatphobia and the desire to end the intergenerational spread of fatness.

Conclusion:

Looking Toward the Future

The first half of this thesis is dedicated to understanding how weight is treated in medicine and in the world because understanding the roots of systemic fatphobia is essential for setting up the idea of social eugenics in reproductive discrimination. In the first chapter, I look at weight's extensive list of factors and complicated relationship with health. Though weight alone is not enough evidence to draw any health conclusions about an individual, it is widely used to oversimplify people's bodies. Rather than moving away from using weight as a diagnostic tool, health authorities continue to stigmatize fat people by medicalizing obesity and encouraging weight loss, despite evidence that it does not work and is psychologically damaging. I look at medical weight mistreatment because it is essential to understanding the context of discrimination in IVF clinics, as reproductive health care is just one sphere of a larger medical body, and because it is a large component of the struggles facing fat people in America.

Chapter two expands on weight discrimination to explore experiences outside of health care. I raise these issues because first of all, it is important to know that though weight is largely thought of as a medical concept, marginalization does not end when fat people leave doctor's offices. Secondly, this chapter is crucial in setting up for my analysis of social eugenics in chapter four by looking at where fatphobia comes from, how embedded it is in our world, and the hatred of fatness to its construction as the antithesis of good motherhood.

In chapter three, I finally lay out the central issue of the thesis: weight discrimination in IVF clinics. Expanding upon my construction of medical weight mistreatment in chapter one, I apply the ideas to reproductive health care and look at how and why exactly fat women are

excluded from IVF treatment. For chapter three, I especially focus on centering the voices of women of size, such as Gina Balzano, and other people facing reproductive discrimination, in order to explore what it really means to these people on a personal level to be denied parenthood. The issues I discuss are systemic, but I want to emphasize that individuals suffer from them.

Chapter four connects all the aforementioned ideas and explores how reproductive fatphobia reflects on the norms of society. In this chapter, I tie the previous chapters together by examining how medical mistreatment of weight applied to reproductive health is born from deeply engrained fatphobia in our society, specifically for women. I conclude that discrimination in IVF clinics is reflective of a dislike of fat people and the desire to stop fat women from passing on undesirable traits. By looking at eugenics and how it has evolved to become more rooted in socialization rather than genetics, I apply eugenics to everything discussed in chapters one through three, arguing that weight discrimination in IVF clinics is a result of social eugenics against fat women.

In this thesis, I have been exploring some dark realities. While I find it important to illuminate these present-day issues, it is also important to look at hope for the future. Precedents have shown that groups excluded from reproductive clinics can make a place for themselves. As I touched on in chapters three and four, LGBTQ+ communities have been historically excluded from fertility spaces. LGBTQ+ led activism has made great strides in getting insurance coverage, legalizing surrogacy, and gaining visibility in clinics.²¹⁷ All six fertility clinic websites that I looked at in chapter three had information on the websites about LGBTQ+ services,^{166,167,168,169,170,171} and there are some clinics devoted solely to fertility services for queer patients. While homophobia and transphobia still exist and there are barriers to receiving

reproductive healthcare for the LGBTQ+ community, activism has made a lot of progress in opening the doors to this marginalized group that offers hope for people of size.

Fat people are not quite so welcome in fertility clinics yet, but there has been an increase in resources to help find body positive reproductive care. A simple Google search can lead to pages on fertility doctors in various regions who have provided quality care to fat people,²¹⁸ and pregnancy success stories from women of size. Several books have been published, especially in recent years, meant to educate and guide fat women through pregnancy and the difficulties that can come from weight stigma, including *Fat and Fertile: How to Get Pregnant in a Bigger Body* (2019) by Nicola Salmon and *Fat Birth: Confident, Strong and Empowered Pregnancy at Any Size* (2021) by Michelle Mayefske. These resources can have a huge impact on women of size looking to undergo fertility treatment who may be fearful of discrimination, and they provide much-needed optimism when looking toward the future of weight treatment in fertility clinics.

Reproductive justice, which I touched on at the end of chapter three, is a great framework for tackling reproductive issues and has been gaining more popularity. While prior movements focused heavily on the right to not have children through abortion rights and access to birth control, reproductive justice is more comprehensive of a wider array of issues and groups. Access to reproductive technologies is incorporated in the movement as the right to have children. Though there have not yet been many efforts to include fat women in reproductive justice, the progress made in fat activism shows promise for the future incorporation of the two movements.

To take further steps toward the mitigation of fat exclusion in IVF clinics, medical weight mistreatment must be addressed, as the former is heavily affected by the latter. A start is further research into healthy fatness and a more holistic view of how biological and nonbiological

factors can influence fat people's health. Medical technology needs to be constructed for bodies of all sizes and health care providers must be instructed on how to provide quality treatment for any weight. In doctors' offices, physicians should look to other metrics of health, such as a cardio endurance test, blood pressure, and blood work, as more accurate measures of health than BMI. If fertility clinics are very concerned about the health of their patients, they can perform these health screenings for everyone that walks in the door, many of which are already routine procedures, but they should not set BMI limits or assume anything about a patient's health based purely on weight. When doctors encounter patients who are fat and unhealthy, proposed treatment should focus on ways to improve cardiorespiratory health with no regard to weight or weight loss. Education on fatphobia in addition to sensitivity training allows physicians to understand and question their anti-fat biases and to provide a higher quality of care to all patients. Issues of fatphobia in infertility treatment stem from weight bias in health care, and a reworking of how medicine treats weight can go far in helping fat women receive adequate treatment from IVF clinics.

The majority of America is considered overweight or obese¹ and many people are fighting against the oppression they face. Activist movements have arisen to improve health care access for people of size, as well as reduce the negative effects of anti-fat stigma societally. Activist blogs, podcasts, zines, social media accounts, photography, and art are used to advocate fat acceptance and body positivity.²¹⁹ A number of programs have been developed to further the cause, including Health At Every Size. Other programs such as The Body Project and Positive Bodies work to destigmatize fatness, specifically for young women, in hopes of improving quality of life and body satisfaction and lowering the risk of developing an eating disorder.²¹⁹ Accept Yourself! was targeted specifically toward large-bodied depressed women to help them form a healthy relationship with their bodies and address cultural norms around thinness.²¹⁹ Fataffirmative psychotherapy is promising in helping individual people of size work through the stigma they have experienced and overcome negative messages they have internalized.²²⁰ Fat people are fighting for their rights within and outside of the field of medicine. Though activist movements can move along slowly, the existence of so many platforms and programs supporting fat acceptance is an indication of the progress that has been and continues to be made.

Weight discrimination is an intersectional issue that fits well into other activist movements. The disabled community, who are also mistreated by the field of medicine in various ways, benefit from similar ideas about non-normative body acceptance. I explored in chapter three how fatphobia and sexism interact and ending the objectification of women is a crucial tenet of both fat and feminist activism. The queer and trans communities could benefit from major changes made to the field of medicine that also stigmatizes their bodies. The interactions of race and class with weight predispose low-income people of color to disproportionately suffer from anti-fat bias. Fatphobia is rooted in greater societal issues that intersect with other communities. Body-acceptance activism benefits the diverse group that makes up people of size, as well as other marginalized communities who are victims of the same system of oppression.

Just like these other issues, fatphobia is systemic. Inequality in reproductive care stems from how we as a society view mothers and from who is allowed or encouraged to enter the sphere of motherhood. Fat women are socially stigmatized in many ways and are thus excluded from procreating and potentially passing down the undesirable traits that are associated with stereotypes of fat people. Unfortunately, fat studies is an underdeveloped field. Issues of fatphobia are not discussed frequently in academic and non-academic spaces alike and blatant anti-fat bias is still all too often accepted and celebrated. Weight discrimination in reproductive clinics is a result of a systemic hatred of fat women. To get to the root of the issue, to mitigate fat exclusion, the world must begin to talk about it, and work toward loving fat women, embracing the many strengths they have to offer, and allowing them the freedom to plan their futures however they desire, whether or not these futures include children.

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