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## **Gender Bias in Healthcare**

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Throughout history, women have been seen as just child-bearing, rendering them unequal to their male counterparts. Women were unable to vote, get a job, or receive a higher education. Although times have now changed, women are still seen as “less than” men and treated as such. In the healthcare field, women seeking treatment are not taken as seriously as men and are seen as “dramatic”. Although men and women should be treated equally in many areas, there are undeniable differences within women’s bodies that should be taken into account when treating female patients. Major gaps are present between men and women when testing for the safety of drugs and clinical trials; however, these gaps are not taken into account often enough to adequately take women into account. Additionally, women are not taken seriously compared to their male counterparts. Women are considered more “dramatic” and “hysterical” and are treated as such when in the emergency room in need of effective treatments. This is what is known as “medical gaslighting.”

As a woman who has firsthand had bad experiences with doctors ignoring me or not receiving proper care, this topic is even more relevant. I am also planning to go into the medical field in the future. I would like to advocate and hear the women's voices who were never heard. As a future healthcare professional, it makes me wonder, where did these gaps in healthcare stem from? Why are these gaps happening? What specific differences in treatment are occurring? What are some examples of women who have experienced this firsthand? These differences in treatment stem from deep-rooted misogyny and misrepresentation within healthcare that leads to the medical gaslighting of women across the country. This could be solved by implementing sex

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and gender-related processes, reactions, and treatments into medical school curricula to help future healthcare professionals to recognize the problem and correct it accordingly.

The word “hysteria” originates from the Greek word for “uterus”. For centuries, women displaying what men consider “inappropriate emotions were considered “hysterical” due to their hormones (Northwell Health). It’s no surprise that this belief still stands in the healthcare field. Many women’s symptoms are blamed on their hormones from the get-go. When a patient expresses concerns and a healthcare professional dismisses these concern and blames it on other psychological factors, it is called medical gaslighting (Solis-Moreira). This is very often seen in women who are seeking medical help. They are often called dramatic, hysterical and get their very real symptoms blamed on their menstrual cycle or anxiety. Many women have firsthand experience with medical gaslighting. These women share these accounts to shed light on the subject. One of these stories is about a woman who complained of intense abdominal pain for over 5 years. Every time she addressed this concern with doctors she was dismissed. After returning home from work one day she begged her husband to take her to the emergency room due to her unbearable pain. A female physician assistant did what many other doctors have not done and believed her. Her husband of 35 years described to the Washington Post that after a series of tests, his wife was diagnosed with Stage 3 ovarian cancer and 18 months later died (Bever). This is one of many stories of women not being heard when seeking medical treatment and later being diagnosed with an affliction.

Women are not treated the same as men when administering pain medication or when experiencing chest pain. After an analysis of 981 emergency room visits in patients presenting with acute abdominal pain, women were less likely than their male counterparts to be treated with powerful opioid painkillers. In addition, another study showed that women experiencing

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chest pain were twice as likely to be diagnosed with a mental illness compared to men with the same symptoms (Bever). Many women share these different stories, all with the same outcome. One woman suffered months of pounding headaches and was told she was being “dramatic”(Bever). Once finally tested, she had a brain tumor. She would have been able to receive treatment much earlier if she was taken seriously in the first place.

There are many reproductive health problems that require the use of contraceptives as treatment. One of them being the insertion of an intrauterine device or IUD. A woman named Molly Hill shared her story explaining that she was warned it would be uncomfortable but not prepared for “horrific pain”. She began crying in pain shouting to stop. The doctor stated they were almost done and continued the procedure. “It was full-body, electrifying, knife-stabbing pain,” she said. After it was done, she said she lay sobbing on the table in physical and emotional pain. “It felt violating, too, to have that pain that deep in your core where you feel the most vulnerable”(Bever). There are numbing agents and local anesthetics available for this procedure, however, they are rarely used. In addition, many women undergo an egg retrieval process as a treatment for infertility. These women complained of torturous pain since their vaginal walls were being punctured and were told their pain was normal. They were receiving saline instead of anesthesia (Bever).

Acute myocardial infarctions (AMI) or commonly known as heart attacks are increasing among young adults. This number is increasing in both women and men; however, women were less likely to be admitted into the hospital or to observation when presenting with chest pain compared to men. Women with AMI have a higher rate of in-hospital mortality compared to men and are less likely to undergo cardiac testing compared to men when presenting with chest pain. Once diagnosed with AMI, women are also less likely to undergo revascularization. Women

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were less likely to be triaged as emergent, undergo electrocardiography, or be seen as fast. (Banco et al.).

The New England Journal of Medicine found that women are 7 times more likely to be misdiagnosed and discharged in the middle of having a heart attack. Most diseases are studied and evaluated based on the understanding of male physiology and women have different heart attack symptoms than men (Kiesel). Women in pain are more likely to receive sedatives instead of pain medications. Women were shown to be half as likely to be prescribed painkillers for coronary bypass surgery than men who had the same procedure. Wait time is also longer too. Women wait an average of 65 minutes while men wait only 49 minutes. In addition, women experiencing chronic pain are not being treated the way men are treated. 70% of chronic pain is in women but 80% of chronic pain studies are conducted on human men or male mice (Kiesel). Some chronic pain conditions women experience are rheumatoid arthritis, multiple sclerosis, chronic migraine, or sex-specific diseases like endometriosis. In the author's case, she experienced heavy bleeding and cramping each menstrual cycle and received repeated dismissals from doctors to ignore the pain. Her endometriosis strangled her large intestines and adhered to her ovaries and fallopian tubes to her colon. Treatment is repeated surgeries to cut out the scar tissue (Kiesel).

In addition to women experiencing medical gaslighting, they also are misrepresented in clinical trials. This results in drugs not working the same way they work for men, worse side effects, and misdosages. In 2002 there was a report from the US General Accounting Office that said that 70% of drugs that were withdrawn from the market between 1997 and 2000 presented greater health risks for women. Since women are not adequately represented in drug clinical trials, data suggests women are overdosed. The dosage of the drug zolpidem was reduced by

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50% in women due to studies showing women have a 5 times higher risk of driving impairment after 10mg compared to men (Benjeaa). In 90% of cases, women experience strong side effects and experience adverse reactions nearly twice as much as men. Many of the currently prescribed drugs were approved prior to 1993 by the US Food and Drug Administration (FDA) with little to no enrollment of female animals in the preclinical research (Zucker). This results in women being prescribed drugs at the same dose as men.

Men and women metabolize drugs differently and are impacted by different factors. These factors include higher body fat composition, lower body weight, slower gastrointestinal tract, less intestinal enzymatic activity, and slower kidney function. These factors were never studied during clinical trials since women were often excluded from these trials. This was largely due to the unsubstantiated belief that female hormones fluctuating make women harder to study (Pratt). In 1977 the FDA applied guidelines to all pharmaceutical research to exclude “women of child-bearing potential” from Phase I and early Phase II clinical research. This is regardless of their use of contraceptives, their sexual activity, their sexual orientation, the possible sterility of their partners, or even their desire to have a child. The ban lasted into 1993 however, many drugs were made and put onto the market through clinical research that did not include women. To this day this still affects women and exposes them to side effects from drugs that were never tested for them. (Benjeaa) Pinnow et al. estimated that 34.1% of early trials only enroll men and only 30.6% of Phase I trial participants are women. This indicates that early clinical trials are tailored to men’s reactions to drugs such as including dose tolerability, dose and use of a drug, the metabolic and pharmacologic data, side effects associated with increasing doses, and even the choice of the investigational drug tested in large-scale trials. Even in late-phase clinical trials, it

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was estimated between 2007 and 2009 that women make up 43.3% of these trials, and 3.5% of these trials still unspecified the sex (Benjeaa).

Gender norms express expectations about men's and women's behaviors, interests, and choices that are culture based. People are taught at a very young age the gender norms of responding to pain. Boys are taught to be tough and tolerate pain while girls are taught to be sensitive and verbalize pain. This influences pain responses later in life and how other people such as doctors respond to a person based on these gender norms. When experimented on, participants who scored higher in masculinity also showed higher pain tolerance and participants who scored higher in femininity showed higher pain sensitivity. However, in a cold pressure tank, women showed a lower pain threshold but when conditions were changed and both men and women were given the same tolerance expectations, there was no difference between men's and women's pain threshold, tolerance, and pain ratings (Samulowitz).

Although men and women should be treated equally, there are key differences in how women deserve to be treated when in need of healthcare. This difference comes from differences in drug-receptor affinity, receptor density, or signal transduction pathways (Benjeaa). The sex differences in pharmacokinetics can help predict sex-specific drug reactions in women. These differences were not explained by different body weights. The absence of this sex-stratified pharmacokinetic information in public records raises the concern that these sex differences are very widespread and significant. Prescribing the same drug dose will neglect these sex differences in pharmacokinetics, body weight, and risks of overmedication of women, and leads to female-biased adverse drug reactions (Zucker). In addition to physical differences, women also feel pain differently. Research has consistently shown that men and women have different perceptions, descriptions, and expressions of pain. They also use different coping strategies and

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benefit from different treatments. In addition, studies have shown that a women's pain responses can be affected by that women's pain responses are affected by pregnancy, menstrual cycle, and oral contraceptive use, confirming that hormones play a role in pain response. Women's experiences of pain are also different due to their response to opioid receptor antagonists (Solis-Moreira).

Gender norms are present throughout many parts of society including healthcare. Patients, researchers, and clinicians reflecting these gender norms can lead to a gender bias and create medically unmotivated differences in treatment. Some of these examples are women getting treated differently for the same wide range of diseases such as neck pain, heart disease, psoriasis, and polypharmacy (Samulowitz). Although it is such a widespread issue, there are steps we can take to help minimize this issue. Nearly 95 percent of U.S. medical school students said instruction on sex and gender differences in medicine should be included in curriculums, according to a 2015 survey. But only 43 percent said their curriculum had helped them understand those differences and only 34.5 percent said they felt prepared to manage them in a healthcare setting (Jenkins). Those numbers are way too low and need to change in order to be inclusive of the extra care women deserve. It is necessary to implement sex and gender-related processes, reactions, and treatments into medical school curricula to help prevent this gender bias. However, the majority of people grew up with these gender norms and may believe them to be true and it is hard to break these preconceptions so it is also necessary to address these preconceptions and attitudes and have students reflect on other people as well as their own reactions, interpretations, and conduct. There are many ways to implement this such as analyses of video consultations, reflective writing, role-playing with simulated patients of different sex, and group discussions about paper cases (Hamburg). Most gender bias is unintentional so critical

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reasoning and self-reflection is required to identify and learn about it. There is an inconsistency reported throughout medical school curriculum from year one to four about reported exposure to certain sex- and gender-specific content. Using a curriculum mapping approach will weave sex and gender-based medicine into the existing curriculum to help educate but not override existing content covered throughout medical school. Linking this content to percussion or individualized medicine will help students clarify the information and blend it into the existing curriculum (Jenkins). Current healthcare professionals also need the education to help close this sex and gender-based medicine gap in the healthcare field. This can be done by having conferences, workshops, and orientations to further educate current healthcare professionals about these differences.

Women make up half of the population and are just as important as men but are being adversely treated. This is unfair and simply does not make sense. Whether you are a woman or have a mother, sister, aunt, grandmother, or even friend, this topic is very relevant to each and every one of them. The general public as well as healthcare professionals should care about this issue since it affects such a large number of people. As healthcare professionals, your job is to help as many people as you can, why would you treat certain people worse just based on gender? This essay will help advance the scholarly conversation by bringing these issues to light as well as explaining the reasons why this has been happening. More research is necessary to shed light on this issue and to see the trends of this issue post-pandemic or to see if there's a certain age range this happens to most. Better education for sex and gender-related processes is important to implement into medical school curricula to help fix this problem. This will hopefully prompt people within this field to be aware of their actions or the other healthcare professionals around them.



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