



## **THE GENDER GAP IN MEDICINE: A FEMINIST ANALYSIS OF NEUROLOGICAL AND REPRODUCTIVE HEALTH DISPARITIES**

**Anshika Tiwari**

Research Scholar

BA (Hons) Political Science, Galgotias University

**Dr. Pallavi Beri**

Assistant Professor

Department of Political Science, Galgotias University

**DECLARATION:** I AS AN AUTHOR OF THIS PAPER/ARTICLE, HERE BY DECLARE THAT THE PAPER SUBMITTED BY ME FOR PUBLICATION IN THE JOURNAL IS COMPLETELY MY OWN GENUINE PAPER. IF ANY ISSUE REGARDING COPYRIGHT/PATENT/OTHER REAL AUTHOR ARISES, TE PUBLISHER WIL NOT BE LEGALLY RESPONSIBLE. IF ANY OF SUCH MATTERS OCCUR PUBLISHER MAY REMOVE MY CONTENT FROM THE JOURNAL WEBSITE. FOR THE REASON OF CONTENT AMENDMENT / OR ANY TECHNICAL ISSUE WITH NO VISIBILITY ON WEBSITE / UPDATES, I HAVE RESUBMITTED THIS PAPER FOR THE PUBLICATION, FOR ANY PUBLICATIONMATTERS OR ANY INFORMATION INTENTIONALLY HIDDEN BY ME OR OTHERWISE, I SHALL BE LEGALLY RESPONSIBLE. (COMPLETE DECLARATION OF THE AUTHOR AT THE LAST PAGE OF THIS PAPER / ARTICLE).

### **ABSTRACT**

This paper analyzes ongoing gender inequities in India's healthcare system using feminist theory and the Social Determinants of Health framework, with attention to neurological and reproductive health. Indian women represent half the population, but they are systematically sidelined from clinical research, undertreated and undiagnosed for Alzheimer's, and receive coercive or disrespectful reproductive care, especially if they are rural, Dalit, Muslim, LGBTQ+, or living in poverty. The results of this study point to structural failures in medical education and curriculum, trial design and funding, provider training and care, and policy implementation that perpetuate gender and intersectional inequities and reinforce patriarchal norms. Using models from abroad in the EU, Canada, and Sweden, a set of specific actionable recommendations is offered, such as requiring sex-balanced clinical trials, providing gender-sensitive medical education and curriculum, requiring disaggregated data collection and reporting, and providing equitable digital outreach. The paper contends that genuine change to India's healthcare system requires not only a commitment to gender equity and inclusive policies, but that we must move from tokenism to a structural, feminist, and rights-based approach that recognizes the needs of the marginalised.

**Keywords:** Gender bias, Alzheimer's, Reproductive health, Feminist theory, India, Clinical trials, Health equity, Intersectionality

### **INTRODUCTION**

In India, gender has consistently ranked as one of the most important dimensions of health inequality. Although women represent almost half of the population, they continue to be under-represented in clinical research, under-diagnosed, and under-served by the health system. These disparities are not simply a product of a few random events; they are embedded in institutional practices and cultural norms that reinforce women's bodies and wellbeing as under the patriarchal control. Thus, health systems become structured in ways that lead to systemic bias against women and their health issues, across the life course.

Nowhere is this more pronounced than in neurological and reproductive health domains. Worldwide, women are statistically more likely to have Alzheimer's disease than men, but the diagnostic instruments and clinical trials are calibrated around male physiology. In India, women with lower levels of education and those living in rural areas face both biological risk and cultural neglect, which delays or blocks diagnosis. Even when screened for the disease, their symptoms often become dismissed as emotional problems, normal age-related decline, and those women are less likely to be referring to cognitive screening or treatment.

Reproductive health shares a comparable narrative of exclusion and negligence. Women's interactions with their own healthcare are mediated by social/ community norms that refuse to acknowledge their capacity to act and make decisions. Access to maternal health services, reproductive health choices, and care after menopause exist in the context of being economically dependent, lack of mobility and having to acquire permission from male family members. The problems are exacerbated through disrespectful maternity care, biases from providers and coercive family planning policies, all of which lead to worse health outcomes for women in India.

This research utilizes Feminist theoretical framing and the Social Determinants of Health to examine how these structural and cultural determinants combine to sustain and reproduce these gendered inequities. It examines the space of Alzheimer's care and reproduced health services in India, while also exemplifying how women continue to be rendered invisible in contemporary research and health policy. Furthermore, it compares what we know about best practices globally to Jordan's next actionable change, while highlighting areas where they can improve equity and inclusion threats in the health care system in India.

## **1. GENDER BIAS IN ALZHEIMER'S RESEARCH AND CARE**

Women comprise around two-thirds of the population living with Alzheimer's disease worldwide, yet they remain underrepresented in clinical trials. The gender disparity is concerning in India because, for the most part, most studies, research and diagnostic criteria are drawn from male populations or male-based diagnostic criteria. Many studies highlight the degree to which the standard cognitive assessments, including MMSE and MoCA, are education-dependent and culturally biased. In addition, assessments do not include consideration for the socio-educational disadvantages of Indian women, especially in rural settings. This means many women, particularly those who have low literacy, are misclassified as cognitively impaired based on poor performance and/or are never diagnosed with dementia or the earlier stages of dementia because early signs and symptoms are poorly recognized.

There are significant contributions to delayed diagnosis and lack of care based on gendered perceptions in clinical practice. In India, when elderly women report having memory complaints, they are often pathologized as emotional symptoms or menopause rather than early signs of dementia. This typifies a deeper social tendency that downplays women's suffering in general, especially as they age, while deprioritizing their access to medical care and resources. In addition, many older women are still caregivers, and may not even access care for their own decline due to their invisible social role, not activating their right to care. The interaction of gendered roles together with both the burden of care giving and an invisible social status makes older women particularly vulnerable in medical settings, compounding their dementia risks, leading to late-stage care and missed opportunities.

## **2. REPRODUCTIVE HEALTHCARE DISPARITIES**

Reproductive health care in India is influenced by deeply imbedded patriarchal values, socio-economic inequalities, and gaps in policy formulation and implementation. Women's reproductive choices are commonly constrained not by informed consent, but rather the expectation of societal norms and lack of alternative sources. The predominant method of contraception for almost 75% of users in India is female sterilization, while male involvement in family planning is negligible. Women disproportionately bear the burden of reproductive health, especially in low-income and rural contexts where reproductive health decisions are often made by husbands or seniors in the family. The situation is acute for adolescent girls, particularly child brides, who experience high rates of maternal mortality due to lack of autonomy, inability to access antenatal services or even health education.

Even when services are available through national programs such as RMNCH+A and Janani Suraksha Yojana, the quality of care is often marred by disrespect, stigma, and systemic neglect. Women from marginalized casts and communities commonly experience abuse (verbal or physical), being subjected to non-consensual treatment, and lack of privacy around labour and childbirth in public hospitals. Postnatal care and counselling is limited, and mental health concerns like postpartum depression remain underdiagnosed. Social taboos associated with menstruation, fertility, and abortion marginalizes women seeking timely and respectful care. Even as maternal health services have expanded, systems generally do not safeguard women's rights to dignity, safety, and informed reproductive choice.

## **3. INTERSECTIONAL BARRIERS TO ACCESS**

In India, health inequities do not arise from gender alone - caste, religion, class, geography, and disability intersect in ways that create disadvantages. For example, Dalit, Adivasi, and Muslim women experience discrimination and neglect in many aspects of health. Specifically in public health facilities, women from these groups are treated with diminished respect, receive fewer diagnostic services, receive lower quality care, and are subject to verbal abuse. For example, Dalit women may be denied adequate pain relief or emergency obstetric care, while Muslim women's cultural beliefs and the suspicion the health system places upon them engage in a mistrust that detracts from their sense of care-seeking in the health system. This neglect and trauma deepen mistrust in the healthcare system and monumentalize future care-seeking behaviours.

Furthermore, reproductive health services in India fail to cater to the needs of LGBTQ+ individuals, adolescent girls, and women with disabilities. Transgender and non-binary people are often invisible in public health planning and face increased vulnerabilities to a range of sexual and reproductive health risks. Women with disabilities face barriers to access services, whether they be infrastructural or attitudinal, to even basic services - like antenatal care or family planning - and programs rarely consider issues that impact women with disabilities. Similarly, rural and low-income women are often less likely to be digitally connected because the health campaigns that are shifting to the use of digital access and delivery methods. These layers of both identity and vulnerability to health risk highlight the urgent need for intersectional, inclusive, and rights-based health policies in India.

#### **4. STRUCTURAL BIAS IN MEDICAL EDUCATION AND POLICY**

India's medical education system is still structured in ways that perpetuate gender and intersectional bias. While the 2019 MBBS curriculum reform introduced modules on communication and ethics, it fails to include gender as a meaningful lens of analysis. Gender-sensitive content is often included as peripheral or optional opportunities and not integrated into the fundamental core to clinical, public health, and diagnostic learning. The curriculum still largely views the male body as the default biological model, and this has created a culture in which women's health-specific symptoms and needs are invisible across fields such as neurology and reproductive medicine. Accordingly, medical graduates are entering work with limited consciousness regarding the role of gender and access to health, disease pathologies, and patients' lived experiences.

Moreover, out-of-date and unethical content still exists within some areas of the curriculum. For example, forensic medicine programs in many Indian universities continue to teach the "two-finger test" and virginity testing - both of which the WHO and the Supreme Court of India condemned as violations of human rights. To add to this, medical textbooks and training in India has, for all intents and purposes, erased sexual and gender minorities and physicians do not know how to serve this population. Addressing the content gap in medical education needs to move towards mandatory comprehensive modules on social determinants of health, intersectionality, reproductive justice, and care practices that are inclusive. In addition, structural changes to training is not only required to be just and ethical in practice, they are central to dismantling structural health inequities.

#### **5. GLOBAL BEST PRACTICES AND LESSONS FOR INDIA**

A number of high-income countries have made tremendous strides to incorporate gender equity in their healthcare systems. These experiences can provide important information for India. The EU Clinical Trials Regulation (Reg (EU) 536/2014) specifically requires that clinical research include participant groups representative of individuals who will use the medical product, specifically including sex and gender. This requirement helps to ensure that drug trials and health studies include adequate women participant representation. Canada is also addressing sex and gender issues; the federal government requires sex and gender-based analysis (SGBA) as a part of the application process for health research and health policy. In SGBA, every public health initiative needs to assess their differential impacts on men and women. Both the EU Regulations and SGBA ensure that there is equitable participation and the outcomes are analyzed by sex and gender, enhancing the clinical relevance and safety for all populations.

Sweden's national healthcare model, which continuously ranks among the most equitable in the world, utilizes gender budgeting and is patient-centered in its conception of care based on human rights principles. Its policies around maternal health, dementia care and its inclusion of LGBTQ+ provide examples of how gender-sensitive governance can have tangible impacts on public health. India's healthcare programs, such as Ayushman Bharat, have a focus on hospitalization benefits, and overlook very important areas, such as mental health, elderly care, and preventive health issues related to women. Learning from established international best practices - gender-disaggregated health data, expanding training for providers, and including women in policy-making - can provide India with a path forward in addressing long standing gender inequalities. By incorporating the needed reforms into the conduct of its National Health Policy, and aligning them to Sustainable Development Goals (SDGs), India can strengthen equity, access and health outcomes for women and marginalized groups.

## 6. POLICY GAPS AND RECOMMENDATIONS

Despite some national progress in health coverage, your dissertation identifies critical gaps that persist in addressing women's comprehensive health needs. Based on the evidence and analysis presented, the following recommendations emerge:

- **Mental health and care for aging women are desperately underserved:** The Ayushman Bharat is primarily focused on hospitalization and acute illness; they are not looking at the long-term care, preventative care, or "neurological" services for aging women, including care for Alzheimer's. Your dissertation highlights that older women are typically caregivers themselves and are not properly recognized or diagnosed with cognitive-related disorders.
- **Sex-balanced participation in clinical trials must be mandated:** As you state in your analysis, clinical research in India and across the world continues to marginalize or exclude women, and even pregnant and breastfeeding women. This leads to drugs and treatments that may not be safe or effective for use among women. As the EU and NIH have done, India needs to require sex-disaggregated data to justify exclusion of women in clinical trials.
- **Gender sensitivity training for health providers is necessary:** Disrespectful maternity care, outright neglect during childbirth, and dismissal of women's symptoms (especially cognitive or reproductive) are pervasive issues, as outlined in the studies mentioned in your paper. In order to change provider attitudes and establish ethical care practices, mandated training about gender-sensitive care practices is necessary.
- **Data collection should be stratified by gender, caste and region:** dissertation highlights how intersectional identities (e.g., Dalit, Muslim, rural, LGBTQ+) impact access to health and health outcomes. Accurate, stratified data is needed for policymakers to identify layered inequities, and achieve change. Mandating sex-, caste-, and geography stratified health reporting would highlight inequities and point to steps for reform.
- **Invest in digital health equity and inclusive outreach:** As stated in your dissertation, digital health campaigns often operate with the assumption that people have access to smartphones/internet; something may not be true for rural or low-income women. Public health initiatives need to take into consideration language and customs, be offline, and community led, to ensure that people are participating and knowing about opportunities to be aware of inequities in health access and literacy.
- **Use feminist and intersectional perspectives in national health policy:** Your critique concludes that policy frameworks need to move beyond the rhetoric of population control and Healthy Populations towards a rights-based, woman-centered framework. Further a rights approach must reflect women's roles in healthcare decision-making, ensure dignity in care for women, and challenge formal barriers to enter and use the health system, rather than rely on tokenistic inclusion only.



## CONCLUSION

Healthcare in India continues to embody systemic and entrenched inequalities of gender, caste, and class that systematically disadvantage women, including women living with dementia and women requiring reproductive health care. These inequities exist because of clinical trial exclusion, cultural expectations of patriarchy, insufficient provider training, lack of dignity and respect during care, and policy direction that ignores the intersectional realities of women. We recognize through a feminist and intersectional approach that real change cannot solely result from the expansion of policies and programs. Real change requires action on structural reforms to the methods of medical education, the processes and functionalities of inclusive clinical research, gender sensitive policies, and targeting investment in communities that ignore Intersectionality and marginalization. India has the opportunity to create a more just and comprehensive healthcare system by adopting global best practices: sex-disaggregating data and programs, gender equity training for all providers of care, increasing accessible digital access to care, and ensuring governments reject compliance with exclusionary research practices that only serve the highest socioeconomic class. The end goal remains to serve all citizens of India, especially the most marginalized women.

## References

1. Bourzac K, 2025, Why women experience Alzheimer's disease differently, Nature
2. Moutinho S, 2025, Women and Alzheimer's, Nature Medicine, 31
3. Solo J and Festin M, 2019, Provider bias in family planning, Global Health: Science and Practice, 7(3)
4. Bajwa S and Kurdi M, 2020, Gender-based research in healthcare, International Journal of Anaesthesiology
5. Rao M et al., 2011, Human resources in Indian health, The Lancet, 377(9765)
6. Ministry of Health and Family Welfare, Government of India, 2017, National Health Policy
7. World Health Organization, 2023, Gender and Health Toolkit
8. European Commission, 2023, Gender in EU Research and Innovation
9. Public Health Foundation of India, 2023, Gender Modules in Medical Education
10. Zhang L, Glance L and Sannabhadi R, 2022, Gender and cognition, NIA News



## **Author's Declaration**

I as an author of the above research paper/article, here by, declare that the content of this paper is prepared by me and if any person having copyright issue or patent or anything otherwise related to the content, I shall always be legally responsible for any issue. For the reason of invisibility of my research on the website /amendments /updates, I have resubmitted my paper for the publication on the same date. If any data or information given by me is not correct, I shall be always legally responsible. With my whole responsibility legally and formally have intimated the publisher (Publisher) that my paper has been checked by my guide (if any) or expert to make sure that paper is technically right and there is no unaccepted plagiarism and hentriacontane is genuinely mine. If any issue arises related to Plagiarism /Guide Name /Educational Qualification /Designation /Address of my university /college /institution /Structure or Formatting /Resubmission /Submission /Copyright /Patent / Submission for any higher degree or job /Primary Data/Secondary Data issues. I will be solely/entirely responsible for any legal issues. I have been informed that most of the data from the website is invisible or shuffled or vanished from the database due to some technical fault or hacking and therefore the process of resubmission is there for the scholars/students who find trouble in getting their paper on the website. At the of the resubmission of my paper I take all the legal and formal responsibilities. If I hide or do not submit the copy of my original documents (Andhra/Driving License/Any Identity Proof and Photo) in spite of demand from the publisher, then my paper maybe rejected or removed from the website anytime and may not be consider for verification. I accept the fact that as the content of this paper and the resubmission legal responsibilities and reasons are only mine then the Publisher (Airo International Journal/Airo National Research Journal) is never responsible. I also declare that if publisher finds any complication or error or anything hidden or implemented otherwise, my paper may be removed from the website, or the watermark of remark/actuality may be mentioned on my paper. If anything is found illegal, publisher may also take legal action against me.

**Anshika Tiwari**  
**Dr. Pallavi Beri**

\*\*\*\*\*