

Navigating Gender and Disability: The Impact of Rheumatoid Arthritis on Women Worldwide

Ms. Aausi Talwar¹, Dr. Aakar Kulshrestha²

¹Assistant Professor English, Department of Languages, Noida Institute of Engineering & Technology, Greater Noida, Uttar Pradesh 201306

²MBBS, All India Institute of Medical Sciences, Raipur, Raipur, Chhattisgarh 492099

DOI: <https://doi.org/10.51244/IJRSI.2025.120500116>

Received: 21 May 2025; Accepted: 26 May 2025; Published: 14 June 2025

ABSTRACT

Aim: In terms of higher prevalence, intensity of symptoms and disability, men and women are disproportionately affected by Rheumatoid arthritis (RA), a chronic autoimmune disorder. In "Navigating Gender and Disability: The Impact of Rheumatoid Arthritis on Women Worldwide," the complex interactions between gender and disability in the setting of RA are examined. Both gender and disability play important roles in shaping people's lives by affecting their possibilities, social roles, and sense of self. When these factors intersect, they can compound the barriers and discrimination people face, necessitating a nuanced understanding and approach to advocacy and policy.

Methodology and Approaches: The study looks at the socioeconomic, medical, and psychological difficulties that women with RA face through an extensive analysis of worldwide data and literature. It highlights significant gender gap, including delayed diagnosis, less aggressive treatment, and higher rates of unemployment and economic instability. This may be due to biological, economic as well as socio-cultural factors contributing to what we call Gender Disparity. The onset of RA typically occurs between the ages of 30 and 60, affecting women during their most productive years, which can lead to substantial socioeconomic consequences.

Outcome: Women with RA often experience more severe symptoms and a higher rate of disease progression, resulting in chronic pain, fatigue, and reduced quality of life. Furthermore, women with RA often encounter additional barriers due to their dual identity as women and as individuals with disabilities, leading to compounded discrimination and reduced quality of life, encountering double discrimination: both as women and as individuals with disabilities. Societal attitudes and stereotypes about both gender and disability can further marginalize these individuals, making it crucial to address these prejudices through awareness and education.

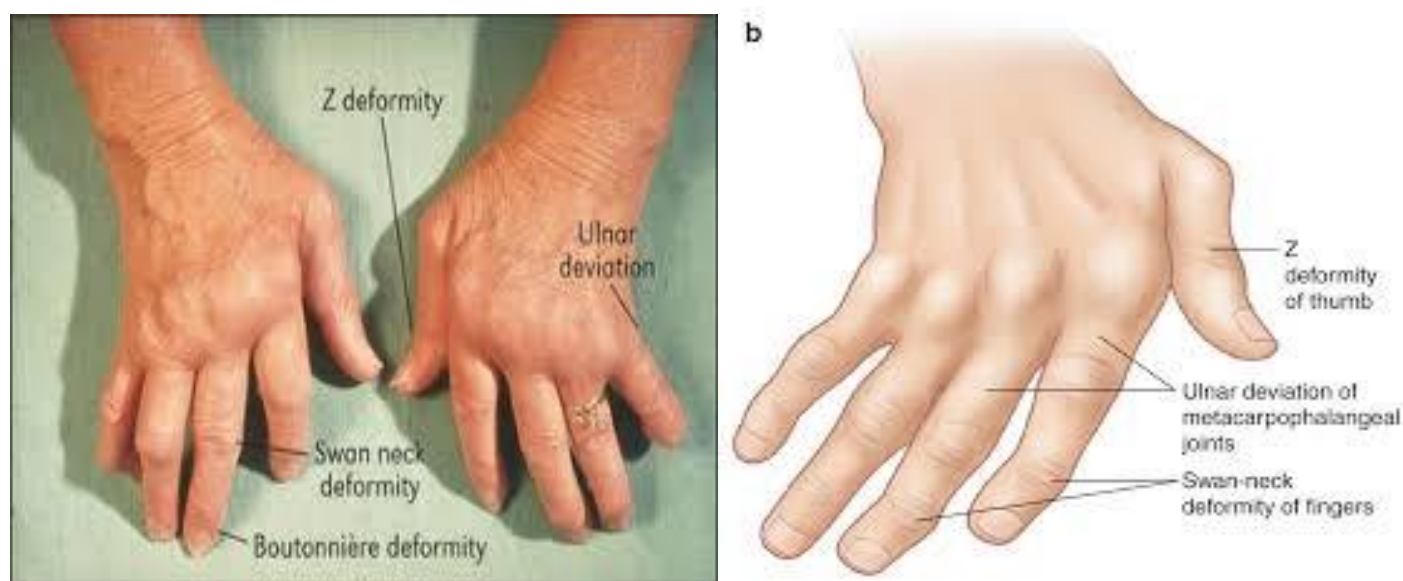
Conclusion: The results highlight the critical need for gender-sensitive healthcare interventions and policies to overcome these disparities. Disparities in healthcare access, availability of specialized treatments, and socioeconomic considerations provide challenges to the management of RA in women worldwide, especially in low- and middle-income countries. To lessen the overall impact of RA on women, addressing these problems calls for a multimodal approach that includes better early diagnosis, individualized treatment plans, and strengthened support networks. This research calls for a more inclusive approach to healthcare that focuses on the special requirements of women with RA, eventually striving to improve their overall well-being and social inclusion. It does this by drawing attention to these important issues.

Keywords: Gender Disparity, Global context, Healthcare, Rheumatoid Arthritis, Social Inclusion

INTRODUCTION

Rheumatoid arthritis (RA) is a chronic inflammatory disorder that primarily affects the joints and, in some people, can damage a wide variety of body systems. It is an autoimmune condition, meaning the body's immune system mistakenly attacks its own tissues. It affects the lining of joints causing a painful swelling that can eventually result in bone erosion and joint deformity. Early RA tends to affect the small joints in the hands and feet first. As the disease progresses, symptoms often spread to the wrists, knees, ankles, elbows, hips, and shoulders. In most people, there is a symmetrical involvement of joints. It is associated with joint stiffness which is often worse in the mornings and after periods of inactivity. Affected joints may appear red and feel warm to the touch.

Other symptoms may include fatigue, fever, weight loss and loss of appetite. About 40% of people who have Rheumatoid arthritis also experience signs and symptoms that don't involve the joints. Areas that may be affected include skin, eyes, lungs, heart, kidneys, salivary glands, nerve tissue, bone marrow, blood vessels. Rheumatoid arthritis, signs and symptoms may vary in severity and may even come and go. Periods of increased disease activity called flares alternate with periods of relative remission when the swelling and pain fade or disappear. Over time, Rheumatoid arthritis can cause joints to deform and shift out of place. Various joint deformities seen in RA include Ulnar drift, Boutonnière deformity, Swan neck deformity, Z deformity, Bunion, and Claw toe.



The exact cause of RA is unknown, but it involves the immune system attacking the synovium (the lining of the membranes that surround the joints) in which immune cells gather inside the joint lining and they form a layer of abnormal tissue. The tissue releases chemicals that cause swelling or inflammation. The inflammation wears down the bone and cartilage. The presence of autoantibodies like rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) indicates an autoimmune process underlying RA.

The possible risk factors include genetics, environmental factors, gender and age, hormones and smoking. It has been found that a family history of RA can increase the risk, specific genes, such as those in the HLA-DRB1 locus, are associated with an increased risk of developing RA, environmental factors like smoking, occupational exposure to silica dust (found in mining and construction work) and certain infections may trigger RA in genetically predisposed individuals, although specific pathogens have not been definitively linked. Genetic predisposition combined with environmental triggers can increase RA risk. RA is more common in women than men, which may be because of the effects of the hormone estrogen. The fluctuations in hormone levels during the menstrual cycle, pregnancy, and menopause may influence the onset and course

of RA. RA typically begins between the ages 40 and 60. Existing statistical analysis and interpretation of quantitative data show that RA represents not only a medical feature, but also a public health issue.(1)

If left untreated, RA can lead to joint damage and deformities, decreased mobility, and other systemic complications such as cardiovascular disease, lung disease, and osteoporosis. Early diagnosis and aggressive treatment are crucial for managing RA and preventing severe joint damage. Regular monitoring and adjustment of treatment plans are necessary to control the disease effectively.

Overall, rheumatoid arthritis is a complex condition requiring a multifaceted approach to treatment and management. It is indeed more common in women, and there are several hypotheses to explain this gender disparity, as well as the causes of the disease.

Rheumatoid Arthritis: Gender specific domains

Female hormones, particularly estrogen, are thought to play a role in the development of RA. Estrogen may influence immune system activity, although the exact mechanism is not fully understood. Some studies suggest that estrogen might exacerbate the inflammatory response in RA. RA symptoms often improve during pregnancy and flare up after childbirth, indicating a potential link between hormonal changes and disease activity.

Certain genetic markers associated with RA, such as specific human leukocyte antigen (HLA) types, may interact differently with male and female hormones, potentially increasing the risk in women.

Further, women generally have stronger immune responses than men, which might make them more susceptible to autoimmune diseases like RA. This heightened immune activity, while beneficial in fighting infections, can lead to increased likelihood of the immune system attacking the body's own tissues.

The higher prevalence of RA in women is likely due to a combination of hormonal, genetic, and immune system differences. The exact cause of RA involves a complex interplay of genetic susceptibility and environmental factors leading to immune system dysfunction. Understanding these factors helps in developing targeted therapies and preventive strategies for those at risk.

RA is two to three times more common in women than men and has an onset that often coincides with the reproductive period in women. Pregnant women with RA often have milder disease activity than comparable non-pregnant female RA patients, but disease flares of a severity and frequency that exceed those of the pre-pregnancy period are commonly seen in the post-partum period. These changes in disease patterns during and after pregnancy not only imply that pregnancy could affect existing disease but also that it might affect the subsequent risk and timing of RA development in healthy women. (2)

Preventing rheumatoid arthritis (RA) entirely is challenging due to its multifactorial nature involving genetics, environmental factors, and immune system dysfunction. However, several strategies can help reduce the risk and potentially mitigate the higher prevalence in women.

However, even though the rate of effect is higher in females, are women aware of the biological, psychological, and cultural effects of this disease? According to the concepts of Gender studies women are always looked down on compared to men suffering from the similar disability. This research paper aims to examine the strength and potential of women despite the societal subjugation in terms of disability.

LITERATURE REVIEW

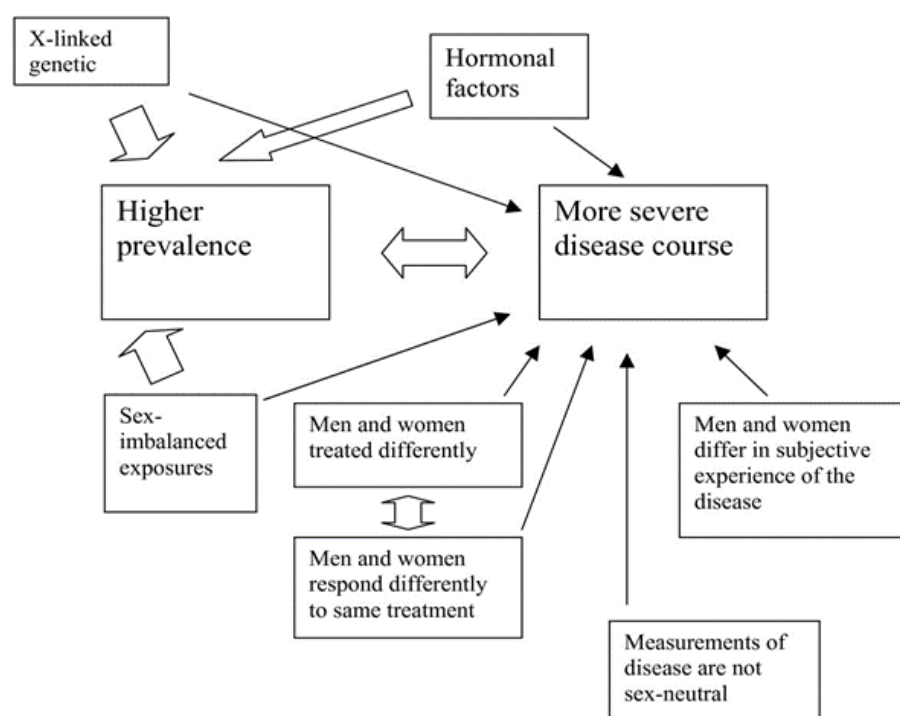


Figure 1

In Figure 1 as mentioned in the research article – “Sex differences in rheumatoid arthritis: more than meets the eye...”, it is shown that X-linked genetic factors, hormonal factors, and exposures that may be different for men and women could all influence the prevalence of autoimmune diseases as well as their severity. The latter aspect is, however, also influenced by many more factors, including differences in the treatments given, the response to treatments, the subjective experience of the disease, and the instruments used to measure the disease. The thick arrows indicate established associations and the thin arrows putative associations. This shows how both men and women have different cycles of handling a disability or disease considering the hormonal as well as the psychological dealing pattern.

In “The personal impact of rheumatoid arthritis on patients' identity: a qualitative study” Heidi Lempp, David Scott, and Gabrielle Kingsley in addition to the physical impact of RA on patients' lives have given detailed descriptions of how their identity was affected in relation to (1) their private lives (e.g. difficulties in their relationships, or caring for others); (2) their public roles and responsibilities (e.g. in their paid work and experiences of stigmatization or discrimination); and (3) their private and public domains (e.g. perceived change of physical appearance, alteration of self-image, and change or loss of social roles). Young patients (25—45 years) did report some differences in their chronic illness experiences, but patients from ethnic minorities did not.

Loreto Carmona, Elena Aurrecoechea, and María Jesús García de Yébenes says through their research work “Tailoring Rheumatoid Arthritis Treatment through a Sex and Gender Lens” empirical evidence points to female-male differences in biological treatment outcomes, which are probably multifactorial. Sex may influence effectiveness and safety through the effect of hormones on immune function, differences in drug pharmacokinetics and pharmacodynamics, and outcome measures. They also emphasized that the gendered process appears to influence the psychological well-being of RA patients. Women have more depressive symptoms, higher levels of negative affect, somatic complaints, more passive coping strategies, and less socialization than men. Differential socialization patterns, leading to passive coping behaviors, may explain the observed gender differences in depressive symptoms. Women may be more likely to respond to stressful events by focusing internally on symptoms and their consequences.

According to Annelies Boonen & Johan L. Severens in “The burden of illness of rheumatoid arthritis” they highlight that it is necessary to understand the full burden of illness of a disease before the value of interventions can be assessed. Rheumatoid arthritis (RA) has an impact on a variety of stakeholders, including patients, healthcare systems, and society as a whole. The impact on health is, naturally, relevant to both patients and society as a whole, and is summarized by health-related quality-of-life measures from the point of view of the patient and by utilities from the societal perspective. Similarly, work participation is important for both patients and society. Withdrawal from the labor force and short- and long-term sick leave are extensively studied in RA and lead to substantial productivity costs at the societal level and to income loss for patients. In addition, the recent concept of presenteeism, which reflects the problems that patients experience while at work, is considered. Patient and family costs are mainly driven by the need for formal and informal care. Overall, RA has a significant impact on the health of and costs to patients and society, suggesting that effective interventions to reduce the impact are of value.

Thus, this is also a very important aspect to consider the cost of this illness, which too becomes gender specific due to the societal elements of discrimination and gender-specific behavior, making it difficult for women to deal with the same situation wherein men are far less judged in terms of disability than women, who are not able to justify their ‘assigned role in society’.

To analyze Indian population and study the effects of RA, a study was conducted by Waseem R. Dar, Irfan A. Mir, Summra Siddiq, Mir Nadeem, and Gurmeet Singh in their research – “The Assessment of Fatigue in Rheumatoid Arthritis Patients and Its Impact on Their Quality of Life” wherein a total of 140 study subjects and 100 controls were taken into the study with ages closely matched with controls. The study subjects had a mean age of 47 years compared with the control mean of 42 years with a p-value of 0.073 was taken as shown below.

Table 1. The distributions of patients and controls according to education (n signifies the number of subjects and controls).

Education	Patients (n = 140)	Control (n = 100)
Middle School	25 (17.86)	10 (10.00)
High school	17 (12.14)	8 (8.00)
Hr. secondary	13 (9.29)	9 (9.00)
Diploma	0 (0.00)	29 (29.00)
Graduate	6 (4.29)	15 (15.00)
Post-graduate	0 (0.00)	3 (3.00)
GNM	1 (0.71)	0 (0.00)
None	78 (55.71)	26 (26.00)

The table clearly shows that the most study subjects were housewives and were illiterate 78 (56%). A total of 25 (18%) were middle school pass, 17 (12%) had gone to high school, 13 (9%) had gone for higher secondary education, and only 6 (4%) were graduates. Among the controls, most, 29 (29%), held diplomas, 26 (26%) were illiterate, 15 (15%) were graduates, 10 (10%) were middle school pass, 8 (8%) had gone to high school, and 9 (9%) had gone for higher secondary education. Thus, education also becomes a very important aspect when it comes to awareness about the symptoms and causes of an emerging disease or disability.

The average ages of the patients and controls in the investigation were nearly identical: The average age of the study subjects was 47 years, whereas the average age of the controls was roughly 42 years. Only 16% of subjects were male, while 84% were female, resulting in a roughly 1:5 ratio.

The gendered process appears to influence the psychological well-being of RA patients. Women have more depressive symptoms, higher levels of negative affect, somatic complaints, more passive coping strategies,

and less socialization than men. Differential socialization patterns, leading to passive coping behaviors, may explain the observed gender differences in depressive symptoms. Women may be more likely to respond to stressful events by focusing internally on symptoms and their consequences. The patient's perception of their disease directly impacts their behavior, treatment compliance, and outcome. The social process also affects gender differences in adherence to treatment and illness perception. In a cross-sectional study of 320 RA patients, nonadherence was significantly associated with stress, disease activity, functional measures, and deformity, and female gender was an independent predictor of nonadherent behavior and more negative illness perception.

Lifestyle Modifications needed for better Coping in Women

Despite the importance of health care in patients with RA, little attention has been paid to whether there is differential access to or use of health care between men and women. Looking at differential access to health care by gender is not straightforward. Different factors are related, such as intrinsic patterns of healthcare use in men and women, socioeconomic barriers, and attitudes and behaviors. The pattern of health care in RA patients is multifactorial and mainly explained by need-related factors, which supports the principle of equity. However, some gender differences have been observed. Women's sex is an independent determinant of overall care. It increases the probability of receiving allied health and home care after adjusting for other characteristics, such as disease activity, duration, comorbidity, and functional status. Concerning patient empowerment, younger and more educated women show a greater need for information and involvement in treatment decisions.

Smoking Cessation: Smoking is a significant risk factor for RA. Women who smoke are at a higher risk, and quitting smoking can significantly reduce this risk. Minimizing exposure to secondhand smoke is also beneficial.

Healthy Diet: Eating a diet rich in fruits, vegetables, whole grains, and omega-3 fatty acids (found in fish) can help reduce inflammation. Obesity increases the risk of developing RA and can exacerbate symptoms. Maintaining a healthy weight through diet and exercise is crucial.

Regular Exercise: Regular, moderate exercise can help maintain joint flexibility, reduce inflammation, and improve overall health. Building muscle strength around the joints can provide better support and reduce strain on joints.

Monitoring Hormonal Changes- Pregnancy and Menopause: Women should be aware of how hormonal changes during pregnancy, postpartum, and menopause may affect RA risk and symptoms. Regular check-ups and discussions with healthcare providers can help manage these changes.

Avoid Silica Dust: Women working in environments with silica dust exposure (e.g., construction, mining) should use protective equipment and follow safety guidelines to minimize risk.

Vaccinations: Keeping up with vaccinations can help prevent infections that might trigger autoimmune responses. Treating infections early to avoid prolonged immune system activation is advisable.

Early Detection: Regular check-ups can help detect early signs of RA or other autoimmune diseases. Early intervention can slow disease progression. For women at higher risk, regular screening for autoantibodies like rheumatoid factor (RF) and anti-CCP antibodies can help in early detection and management.

Screening for Genetic Risk: Women with a family history of RA might benefit from genetic counseling to understand their risk and take preventive measures.

Stress Reduction Techniques- Mindfulness and Relaxation: Practices such as yoga, meditation, and deep-breathing exercises can reduce stress, which may help in managing immune system health.

Adequate Sleep: Ensuring adequate and quality sleep supports overall health and immune function.

Educational and Support Programs and Awareness Campaigns: Increasing awareness about RA, its risk factors, and prevention strategies through public health campaigns can help women take proactive measures.

Support Groups: Joining support groups for those at risk or newly diagnosed can provide emotional support and practical advice.

Precision Medicine: Using personalized approaches based on genetic, environmental, and lifestyle factors to prevent and manage RA can be effective.

Early Use of DMARDs: For those with early signs of RA or high genetic risk, disease-modifying antirheumatic drugs (DMARDs) may be used to prevent disease progression.

While these strategies may not entirely prevent RA, they can significantly reduce the risk and help manage symptoms effectively, particularly in women who are at a higher risk. Regular communication with healthcare providers is essential to tailor these prevention strategies to individual needs. However, we do see in societies how marginalized and malnourished women are due to the roles assigned to them, making them unaware of the learning and preventive opportunities in the world.

The 2011 World Report on Disability indicates that female disability prevalence rate is 19.2 per cent whereas it is 12 per cent for men. The global literacy rate is as low as three per cent for all adults with disabilities, and one per cent for women with disabilities. Although all persons with disabilities face barriers to employment, men with disabilities have been found to be almost twice as likely to be employed as women with disabilities. Women and girls with disabilities experience higher rates of gender-based violence, sexual abuse, neglect, maltreatment and exploitation than women and girls without disabilities.

Women and girls with disabilities are three times more likely to experience gender-based violence compared to non-disabled women.

Not only were they looked down but also made to feel unworthy due to their disability. Women need to be made aware of the possibilities of success and not just the pointlessness of life being disabled. Examples of successful disabled women can be narrated to them shedding light on their journeys to success such as Sambhavna Seth - The Bigg Boss star, Kathleen Turner- a two-time Golden Globe winner for Best Actress, Kristy McPherson -the South Carolina native LPGA golfer was diagnosed with RA at age 11, when she was in the sixth grade. She said

“It seemed like the end of the world,” she told Golf Digest. “I spent months in bed, unable to walk, with a rash and a swelling in my throat that made it difficult to breathe.” From the pain of the diagnosis came a newfound love: golf.

An illustrative case of the intersection between gender, disability, and athletic perseverance is that of Kristine Holzer, a former rower turned Olympic speed skater. Diagnosed with juvenile rheumatoid arthritis at a young age, Holzer has cited the disease as a formative influence, shaping her outlook and drive. “My experience with the disease taught me to appreciate my physical abilities and to be thankful for everything I can do,” she has stated, highlighting how lived experiences of chronic illness can transform into sources of resilience and motivation. Despite the physical limitations imposed by her condition, Holzer excelled in collegiate rowing eventually captaining the Gonzaga University team and later transitioned to speed skating, where she earned a place on the U.S. Olympic team for the 2006 Winter Games in Torino. Her journey not only exemplifies the underrepresented narratives of women with disabilities in elite sports but also underscores the psychosocial complexities of navigating physical impairment in gendered spaces of performance and recognition.

In the Indian cultural context, several women in the public eye have spoken candidly about their experiences with rheumatoid arthritis (RA), thereby contributing to a broader discourse on gendered experiences of chronic illness. Among these figures are actors Sambhavna Seth, VJ Dhivya Sarshini, Kanchan Gupta, and Sonam Bajwa, who have used their platforms to raise awareness about RA. Sambhavna Seth, in particular, has articulated the compounded challenges of living with RA while undergoing failed IVF treatments, underscoring the interplay between reproductive health, autoimmune disease, and emotional well-being. Additionally, actresses Ankita Lokhande and model Prachi Bansal have shared their journeys with RA, contributing to a gradual but notable shift in public perception and recognition of the condition. These narratives are significant in that they foreground the lived realities of Indian women navigating illness within highly visible and gendered professions, challenging dominant silences surrounding disability and fostering a more inclusive understanding of embodiment and resilience in popular discourse.

Multiple steps can be incorporated such as –

- Increasing the leadership and participation in decision-making of women and girls with disabilities, identifying key factors, strategies or approaches that can be shared in this regard.
- Empowerment of women and girls with disabilities, and their inclusion in development policies, programs, monitoring, and evaluation with gender-based budgeting at all levels, including international cooperation.
- Increasing cooperation, partnerships, and synergies between UN entities, organizations of women and girls with disabilities, women's development, and human rights organizations, among others to provide sustained and sustainable support for the empowerment of women with disabilities.

Thus, there is no end to belief and dreams, if there is the dedication to achieve one's goal then no wall can stop someone from achieving them, be it gender, society, or psychological barriers. "It's all in the mind."

CONCLUSION

Navigating the intersection of gender and disability presents significant challenges, particularly in the context of rheumatoid arthritis (RA) among women worldwide. This issue is further compounded in regions where gender disparities are pronounced, such as in India. Globally, women with RA face numerous obstacles due to both their condition and gender. They often encounter biases in healthcare that result in delayed diagnoses and inadequate treatment. The societal expectations placed on women as primary caregivers can also exacerbate the impact of RA, as they might neglect their health needs to fulfill familial duties.

In India, these challenges are more pronounced due to entrenched gender inequalities. Women with disabilities, including those with RA, are less likely to receive equitable healthcare and employment opportunities compared to their male counterparts. This disparity is rooted in cultural norms and systemic barriers that devalue women's health and economic contributions. The lack of accessible healthcare facilities and professionals trained to understand the unique needs of women with RA further exacerbates the problem. Women in rural areas are particularly disadvantaged, often having to travel long distances to receive appropriate care, if they can access it at all. Economic dependence on male family members can restrict their ability to seek and afford treatment.

Employment opportunities for women with RA in India are also severely limited. The stigma associated with both gender and disability often leads to discrimination in the workplace. Women are frequently perceived as less capable of performing their job duties, resulting in lower hiring rates and fewer career advancements. Addressing these issues requires a multifaceted approach.

Increasing awareness and education about RA and its impact on women can help shift cultural perceptions and reduce stigma. Policies must be implemented to ensure equitable access to healthcare and employment for women with RA. This includes training healthcare providers to understand and address gender-specific

health needs, as well as enforcing anti-discrimination laws in the workplace. Empowering women with RA through support networks and advocacy groups can also play a crucial role in improving their quality of life. By amplifying their voices and experiences, these groups can influence policy changes and societal attitudes, fostering a more inclusive environment for all individuals with disabilities.

In conclusion, rheumatoid arthritis poses significant challenges for women globally with additional barriers due to deep-rooted gender inequalities. Efforts to improve their situation must be comprehensive, addressing both healthcare and socioeconomic factors to ensure that women with RA can lead healthy and fulfilling lives.

REFERENCES

1. Radu, A. F., & Bungau, S. G. (2021). Management of rheumatoid arthritis: an overview. *Cells*, 10(11), 2857.
2. Jørgensen, K. T., Harpsøe, M. C., Jacobsen, S., Jess, T., & Frisch, M. (2014). Increased risk of rheumatoid arthritis in women with pregnancy complications and poor self-rated health: a study within the Danish National Birth Cohort. *Rheumatology*, 53(8), 1513-1519.
3. Rheumatoid arthritis. (n.d.). McGraw Hill Medical.
4. Rheumatoid arthritis - Symptoms and causes - Mayo Clinic. (2023, January 25). Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/rheumatoid-arthritis/symptoms-causes/syc-20353648>
5. van Vollenhoven, R. F. (2009). Sex differences in rheumatoid arthritis: more than meets the eye... *BMC medicine*, 7, 1-4.
6. Lempp, H., Scott, D., & Kingsley, G. (2006). The personal impact of rheumatoid arthritis on patients' identity: a qualitative study. *Chronic illness*, 2(2), 109-120.
7. Carmona, L., Aurrecoechea, E., & García de Yébenes, M. J. (2023). Tailoring Rheumatoid Arthritis Treatment through a Sex and Gender Lens. *Journal of Clinical Medicine*, 13(1), 55.
8. Boonen, A., & Severens, J. L. (2011). The burden of illness of rheumatoid arthritis. *Clinical rheumatology*, 30, 3-8.
9. Dar, W. R., Mir, I. A., Siddiq, S., Nadeem, M., & Singh, G. (2022). The assessment of fatigue in rheumatoid arthritis patients and its impact on their quality of life. *Clinics and Practice*, 12(4), 591-598.
10. Holland, K. (2022, September 1). 9 celebrities with rheumatoid arthritis. Healthline. <https://www.healthline.com/health/celebrities-rheumatoid-arthritis#2.-Camryn-Manheim>