

Perception Regarding Hormonal Therapy in Menopausal Women: A Questionnaire-Based Study among Medical and Allied Health Professionals in India

Dr. Yashdeep Kumar¹, Daksh Gupta², Divya³, Sukriti Gararia⁴, Sneha Khajja⁵, Dr. Hemant Kumar Garg^{6*}, Dr. Col. Brij Mohan⁷

1MBBS student, National Institute of Medical Sciences, NIMS University, Rajasthan, Jaipur, 303121, India

2MBBS student, National Institute of Medical Sciences, NIMS University, Rajasthan, Jaipur, 303121, India

3MBBS student, National Institute of Medical Sciences, NIMS University, Rajasthan, Jaipur, 303121, India

4MBBS student, National Institute of Medical Sciences, NIMS University, Rajasthan, Jaipur, 303121, India

5MBBS student, National Institute of Medical Sciences, NIMS University, Rajasthan, Jaipur, 303121, India

6*Professor & HOD, Dept. of Pharmacology, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

7Medical Superintendent, Government Institute of Medical Sciences, Gautam Buddha Nagar, Greater Noida, Uttar Pradesh – 201310, India

Corresponding author: Dr. Hemant Kumar Garg

Email ID: drhkgarg6@gmail.com

Article Received: 02 December 2025, **Revised:** 12 January 2026, **Accepted:** 27 January 2026

ABSTRACT

Background:

Menopause is a natural biological transition in women characterized by cessation of menstruation and decline in ovarian hormone production. Hormone Replacement Therapy (HRT) is considered one of the most effective treatments for menopausal symptoms. However, perceptions regarding its safety, benefits, and risks vary among healthcare professionals and patients. Understanding these perceptions is important to improve counseling and patient care.

Objective:

To assess the perception and awareness regarding hormonal therapy in menopausal women among medical students, dental students, nursing students, hospital nurses, and female patients.

Materials and Methods:

A cross-sectional questionnaire-based study was conducted in two medical colleges, two dental colleges, and two nursing colleges in India. A total of 200 healthcare participants were included: 50 MBBS doctors and interns, 50 BDS dental students, 50 nursing students, and 50 hospital nurses. In addition, responses from menopausal female patients attending outpatient departments were recorded using a structured questionnaire. Data were analyzed using descriptive statistics and chi-square tests.

Results:

Approximately 72% of MBBS doctors and interns were aware of hormonal therapy for menopausal symptoms compared to 60% of dental students, 55% of nursing students, and 58% of hospital nurses. Around 65% of female patients had heard about menopause, but only 32% were aware of hormonal therapy. Concerns regarding side effects such as breast cancer and cardiovascular risk were reported by 48% of healthcare participants and 40% of patients. Most participants (70%) agreed that counseling regarding menopause and hormonal therapy should be improved.

Conclusion:

Awareness regarding hormonal therapy in menopause varies among healthcare professionals and is limited

among patients. Educational programs and improved counseling strategies are necessary to enhance understanding and appropriate use of hormonal therapy.

Keywords: Menopause, Hormone Replacement Therapy, Perception, Awareness, Healthcare Professionals, India

1. INTRODUCTION

Menopause is defined as the permanent cessation of menstruation resulting from loss of ovarian follicular activity, typically occurring between the ages of 45 and 55 years. It is associated with several physiological changes due to declining estrogen levels. Common symptoms include hot flashes, night sweats, mood changes, sleep disturbances, vaginal dryness, and osteoporosis. Hormone Replacement Therapy (HRT), also known as menopausal hormone therapy, has been widely used to manage these symptoms and improve quality of life. Estrogen therapy, with or without progesterone, remains the most effective treatment for vasomotor symptoms. Despite its benefits, the use of hormonal therapy has been controversial due to concerns raised by large studies such as the Women's Health Initiative, which reported possible risks including breast cancer, thromboembolism, and cardiovascular disease. Consequently, both patients and healthcare providers may have varied perceptions regarding its safety and efficacy. Healthcare professionals play a critical role in counseling menopausal women. Their understanding and attitudes toward hormonal therapy can significantly influence patient decision-making.

The present study was conducted to assess the perception regarding hormonal therapy in menopausal women among healthcare students, nurses, and female patients in India.

2. SPECIFIC OBJECTIVES:

To assess the perception and awareness regarding hormonal therapy in menopausal women among medical students, dental students, nursing students, hospital nurses, and female patients.

3. METHODOLOGY

Study Design

Cross-sectional questionnaire-based study.

Study Setting

The study was conducted in:

- 2 medical colleges
- 2 dental colleges
- 2 nursing colleges

in India.

Study Population

Healthcare Participants (n = 200)

Category	Number
MBBS doctors & interns	50
BDS dental students	50
Nursing students	50

Category	Number
Hospital nurses	50

Female Patients

Menopausal female patients attending outpatient departments of participating hospitals were asked to respond to the questionnaire.

Inclusion Criteria

- Healthcare participants willing to participate
- Female patients aged 45–60 years
- Women who had experienced menopause

Exclusion Criteria

- Women with surgical menopause
- Participants unwilling to participate

Study Tool

A **structured questionnaire** consisting of sections on:

1. Demographic details
2. Awareness of menopause
3. Knowledge regarding hormonal therapy
4. Perceived benefits and risks of HRT
5. Attitudes toward counseling and treatment

5-Item Likert Scale Questionnaire**Perception Regarding Hormonal Therapy in Menopausal Women**

Response options for each statement:

- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly Agree

Section A: Awareness and Knowledge

1. I am aware that menopause occurs due to decline in ovarian hormones.
2. Hormonal therapy is an effective treatment for menopausal symptoms.
3. Hormone replacement therapy helps reduce hot flashes and night sweats.
4. Hormonal therapy can improve quality of life in menopausal women.
5. Hormone therapy can help prevent osteoporosis after menopause.

Section B: Perception of Risks

6. Hormonal therapy may increase the risk of breast cancer.
7. Hormonal therapy may increase the risk of cardiovascular disease.

8. Side effects of hormonal therapy limit its use in many patients.
9. Hormonal therapy should only be used after careful medical evaluation.

Section C: Attitudes Toward Treatment

10. Menopausal women should receive counseling about hormonal therapy.
11. Doctors should discuss both benefits and risks of hormone therapy with patients.
12. Hormonal therapy should be prescribed only when symptoms significantly affect quality of life.

Section D: Practice and Acceptance

13. I would recommend hormonal therapy for severe menopausal symptoms.
14. Lifestyle modifications should be tried before hormonal therapy.
15. Awareness programs about menopause and hormonal therapy are needed.

Data Collection

Participants completed the questionnaire anonymously after informed consent.

Statistical Analysis

Data were analyzed using:

- SPSS software
- Descriptive statistics (percentages, means)
- Chi-square test to compare awareness between groups

A **p-value < 0.05** was considered statistically significant.

4. RESULTS

Table 1: Awareness of Hormonal Therapy Among Healthcare Participants

Group	Aware of HRT	Not Aware
MBBS doctors & interns	72%	28%
BDS students	60%	40%
Nursing students	55%	45%
Hospital nurses	58%	42%

Table 2: Awareness Among Female Patients

Awareness Parameter	Percentage
Heard about menopause	65%
Aware of hormonal therapy	32%
Received counseling from doctor	28%
Concerned about side effects	40%

Table 3: Perception of Benefits of Hormonal Therapy

Perceived Benefit	Percentage
Relief from hot flashes	68%
Improvement in quality of life	62%
Prevention of osteoporosis	55%
Improvement in sleep	50%

Table 4: Perceived Risks

Concern	Percentage
Breast cancer risk	48%
Heart disease	35%
Weight gain	30%
Blood clots	28%

Graphical Representation of Results

Bar Graph

Shows awareness of hormonal therapy among healthcare groups.

Pie Chart

Distribution of awareness among female patients.

Line Graph

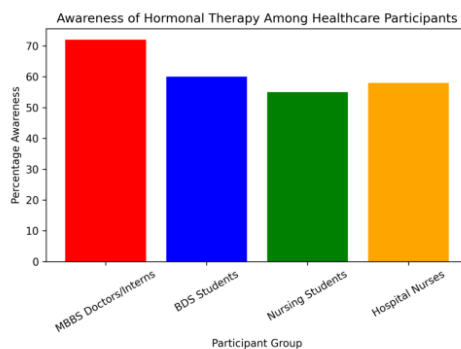
Trend of awareness from MBBS doctors to nursing staff.

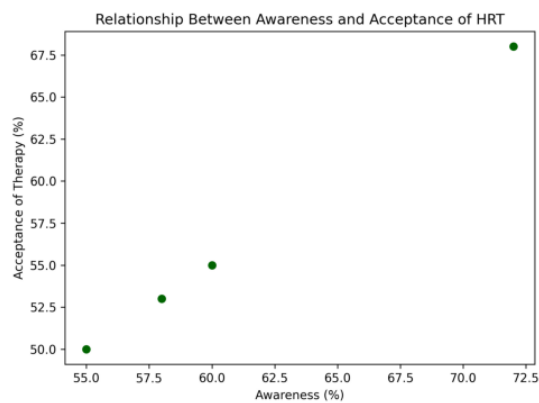
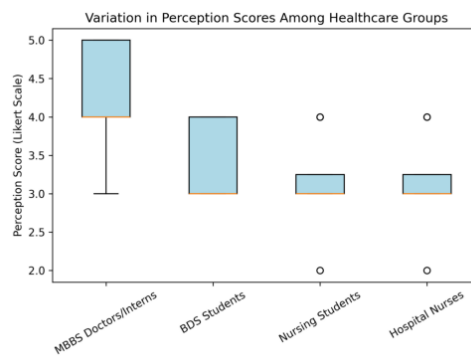
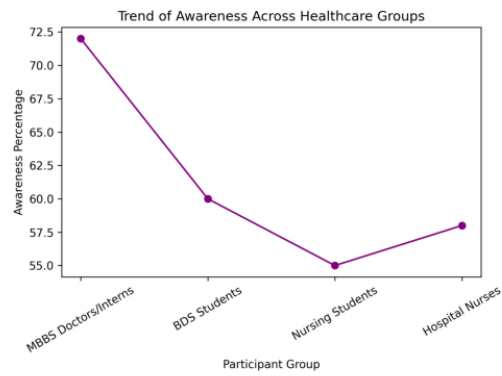
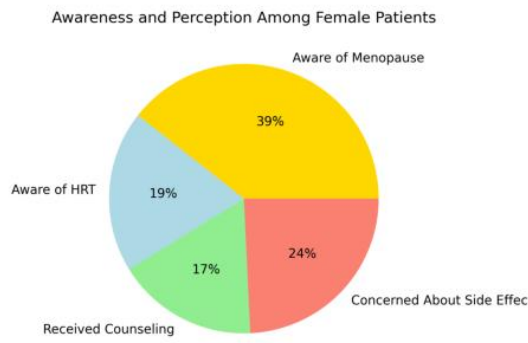
Box Plot

Variation in perception scores among groups.

Scatter Plot

Relationship between awareness level and acceptance of therapy.





5. DISCUSSION

The present study evaluated perceptions regarding hormonal therapy among healthcare professionals and menopausal women. The results showed that MBBS doctors and interns had the highest awareness (72%), which is expected due to their medical training. However, awareness among dental and nursing students was comparatively lower. The study also found limited awareness among female patients (32%), indicating the need for better patient education and counseling. Similar findings have been reported in several previous studies where awareness regarding menopausal hormone therapy among women remained inadequate. Concerns regarding side effects such as breast cancer and cardiovascular disease were commonly reported. These perceptions may be influenced by widely publicized studies and media reports. Healthcare providers should therefore offer balanced, evidence-based counseling regarding benefits and risks of hormonal therapy.

6. STRENGTHS OF THE STUDY

- Inclusion of multiple healthcare groups
- Multi-institutional study design
- Assessment of both healthcare professionals and patients
- Questionnaire-based evaluation of perception

7. LIMITATIONS

- Relatively small sample size
- Conducted only in selected institutions
- Self-reported responses may introduce response bias
- Cross-sectional design cannot establish causality

8. CONCLUSION

The study highlights moderate awareness regarding hormonal therapy among healthcare professionals and low awareness among menopausal women. Educational initiatives, improved counseling, and awareness programs are needed to ensure informed decision-making regarding hormonal therapy.

Healthcare professionals should play an active role in educating women about menopause and available treatment options.

9. RECOMMENDATIONS

Based on the findings of the study “Perception Regarding Hormonal Therapy in Menopausal Women”, the following recommendations can be made:

1. Improve Awareness Among Women

Many menopausal women have limited knowledge about hormonal therapy. Awareness campaigns through hospitals, community health programs, and media should be organized to educate women about menopause and available treatment options.

2. Strengthen Counseling by Healthcare Providers

Doctors, nurses, and other healthcare professionals should provide clear and balanced counseling regarding the benefits and risks of hormonal therapy so that women can make informed decisions.

3. Incorporate Menopause Education in Medical Curriculum

Educational modules on menopause management and hormonal therapy should be strengthened in medical, dental, and nursing curricula to improve the knowledge of future healthcare providers.

4. Promote Continuing Medical Education (CME)

Regular CME programs and workshops should be organized for healthcare professionals to update them on current guidelines and evidence regarding menopausal hormone therapy.

5. Encourage Lifestyle Modification Programs

Lifestyle interventions such as regular exercise, balanced diet, stress reduction, and smoking cessation should be promoted as complementary approaches to managing menopausal symptoms.

6. Develop Menopause Clinics

Hospitals should consider establishing specialized menopause clinics where women can receive multidisciplinary care, counseling, and treatment for menopausal symptoms.

7. Improve Patient–Doctor Communication

Healthcare providers should encourage open discussion with patients about menopausal symptoms and treatment preferences to improve treatment adherence and satisfaction.

8. Conduct Larger Multicenter Studies

Future research should include larger populations from different regions to better understand awareness and perception regarding hormonal therapy in diverse populations.

9. Address Misconceptions About Hormonal Therapy

Educational initiatives should aim to correct misconceptions regarding risks such as breast cancer and cardiovascular disease by providing evidence-based information.

10. Policy-Level Support

Public health authorities should include menopause awareness and management programs within national reproductive health initiatives to improve women's health during midlife.

10. ACKNOWLEDGEMENTS: The authors heartily thank the authorities of National Institute of Medical Sciences Jaipur 303121, Jaipur, Rajasthan, India; Government Institute of Medical Sciences, Gautam Buddha Nagar 201310, Uttar Pradesh, Fortis Hospital, Malviya Nagar, Jaipur 302017, Rajasthan; Dental College and Hospital, Bagru, Jaipur, Rajasthan, College of Nursing, Bagru, Jaipur Rajasthan, India for their permission & help in carrying out this study.

REFERENCES

- [1] Nelson HD. Menopause. *Lancet*. 2008;371:760-70.
- [2] Davis SR, Lambrinoudaki I, Lumsden M, Mishra GD, Pal L, Rees M, et al. Menopause. *Nat Rev Dis Primers*. 2015;1:15004.
- [3] Burger HG, Dudley EC, Robertson DM, Dennerstein L. Hormonal changes in menopause transition. *Endocr Rev*. 2002;23:89-98.
- [4] Santoro N, Randolph JF. Reproductive hormones and the menopause transition. *Obstet Gynecol Clin North Am*. 2011;38:455-66.
- [5] Freeman EW. Associations of depression with menopause. *Menopause*. 2010;17:823-7.
- [6] Utian WH. Psychosocial and socioeconomic burden of menopause. *Am J Manag Care*. 2005;11:S369-76.

- [7] Rossouw JE, Anderson GL, Prentice RL, LaCroix AZ, Kooperberg C, Stefanick ML, et al. Risks and benefits of estrogen plus progestin therapy. *JAMA*. 2002;288:321-33.
- [8] Writing Group for the Women's Health Initiative Investigators. Risks and benefits of estrogen plus progestin therapy in postmenopausal women. *JAMA*. 2002;288:321-33.
- [9] North American Menopause Society. Hormone therapy position statement. *Menopause*. 2022;29:767-94.
- [10] Stuenkel CA, Davis SR, Gompel A, Lumsden MA, Murad MH. Treatment of symptoms of menopause. *J Clin Endocrinol Metab*. 2015;100:3975-4011.
- [11] MacLennan AH, Broadbent JL, Lester S, Moore V. Oral estrogen and combined therapy for menopausal symptoms. *Cochrane Database Syst Rev*. 2004;CD002978.
- [12] Lobo RA. Hormone-replacement therapy: current thinking. *Nat Rev Endocrinol*. 2017;13:220-31.
- [13] Manson JE, Chlebowski RT, Stefanick ML. Menopausal hormone therapy and health outcomes. *JAMA*. 2013;310:1353-68.
- [14] Santen RJ, Allred DC, Ardoin SP, Archer DF, Boyd N, Braunstein GD, et al. Postmenopausal hormone therapy. *J Clin Endocrinol Metab*. 2010;95:S1-66.
- [15] Palacios S. Managing urogenital atrophy. *Climacteric*. 2009;12:48-52.
- [16] Pinkerton JV, Guico-Pabia CJ, Taylor HS. Menopause and quality of life. *Obstet Gynecol Clin North Am*. 2011;38:489-501.
- [17] Mishra GD, Kuh D. Perceived change in quality of life during menopause. *Menopause*. 2006;13:21-8.
- [18] Gold EB. The timing of menopause. *Obstet Gynecol Clin North Am*. 2011;38:425-40.
- [19] Dennerstein L, Dudley EC, Hopper JL. Menopause transition and wellbeing. *BMJ*. 2000;321:164-7.
- [20] Greendale GA, Lee NP, Arriola ER. The menopause. *Lancet*. 1999;353:571-80.
- [21] Stevenson JC. Hormone replacement therapy and cardiovascular disease. *Climacteric*. 2009;12:409-14.
- [22] Shifren JL, Gass ML. The North American Menopause Society recommendations. *Menopause*. 2014;21:1038-62.
- [23] Castelo-Branco C, Blumel JE, Chedraui P. Menopause and women's health. *Gynecol Endocrinol*. 2010;26:711-6.
- [24] Nappi RE, Kroll R, Siddiqui E. Hormone therapy and menopause management. *Climacteric*. 2012;15:225-34.
- [25] Archer DF. Postmenopausal hormone therapy and breast cancer risk. *Climacteric*. 2011;14:409-14.
- [26] Cauley JA. Estrogen and bone health. *Menopause*. 2015;22:901-3.
- [27] Pinkerton JV. Hormone therapy for postmenopausal women. *N Engl J Med*. 2020;382:446-55.
- [28] Maki PM, Kornstein SG. Mood disorders and menopause. *Menopause*. 2017;24:1026-32.
- [29] Thurston RC. Vasomotor symptoms of menopause. *J Clin Endocrinol Metab*. 2012;97:3307-18.
- [30] Freedman RR. Menopausal hot flashes. *Clin Obstet Gynecol*. 2018;61:454-63.
- [31] Avis NE, Crawford SL, Greendale G. Duration of menopausal symptoms. *JAMA Intern Med*. 2015;175:531-9.
- [32] Islam RM, Bell RJ, Green S, Page MJ, Davis SR. Safety of menopausal hormone therapy. *Lancet Diabetes Endocrinol*. 2017;5:982-93.
- [33] Baber RJ, Panay N, Fenton A. IMS recommendations on women's midlife health. *Climacteric*. 2016;19:109-50.
- [34] Reed SD, Newton KM, LaCroix AZ. Menopause management. *Obstet Gynecol*. 2009;113:687-702.
- [35] Woods NF, Mitchell ES. Symptoms during the menopausal transition. *Obstet Gynecol Clin North Am*. 2011;38:489-501.