International Journal of Innovative Research in Health Science

Published: January 29, 2026

Volume 2, Issue 1, Pages 7-13

Research Article

DOI: https://doi.org/10.63349/ijirhs.202603

Assess the knowledge and experience of andropause symptoms among men attending the NCD clinic at IGGGH & PGI, Puducherry

Prithvi Ram. C[1], J. Jasmine[2],

[1] Department of Medical Surgical Nursing, College of Nursing, MTPG & RIHS

[2] Department of Medical Surgical Nursing, College of Nursing, MTPG & RIHS

Author Designation: [1] M.Sc. Nursing, [2] Professor

*Corresponding author: Prithvi Ram. C

Abstract:

Introduction: Aging is a universal biological process that brings about gradual physical, psychological, and hormonal changes in both men and women. While menopause in women is widely recognized and addressed, the aging process in men, particularly the decline in testosterone levels, remains poorly understood and often overlooked. **Aim of the study:** The study aimed to assess the knowledge and experience of andropause symptoms among men attending the NCD clinic at IGGGH & PGI, Puducherry. **Methodology:** A quantitative research approach and cross-sectional descriptive design were used. A total of 269 men aged 40–70 years attending the NCD clinic were selected using purposive sampling technique. Data were collected using a structured knowledge questionnaire and the Male Andropause Symptoms Self-Assessment Questionnaire (MASSQ). Descriptive statistics and inferential statistics such as Pearson correlation and Chi-square test were used for analysis. **Results:** The study findings revealed that most participants (97.8%) had low knowledge about andropause, while only 2.2% had moderate knowledge. Nearly half (46.8%) experienced moderate symptoms, 43.9% had severe symptoms, and 9.3% had mild symptoms. The mean knowledge score was 8.03 ± 1.49 and the mean symptom score was 72.3 ± 10.25. A mild negative correlation was found between knowledge and symptoms ($r = -0.407$, $p < 0.01$). Knowledge was significantly associated with marital status ($p < 0.001$), and symptom severity was associated with leisure time activity ($p = 0.032$). **Conclusion:** The study concluded that there is a poor level of awareness regarding andropause despite a high prevalence of moderate to severe symptoms among men. Enhancing awareness and timely screening could lead to better symptom management and improved quality of life.

Keywords: Andropause, Knowledge, Symptoms, Male Hormonal Decline, MASSQ, NCD Clinic, Puducherry.

INTRODUCTION

Every human being goes through different stages in life starting from infancy, then moving through childhood, adolescence, adulthood, and finally reaching old age. Each of these phases brings its own changes physically, mentally, and socially. Among them, old age can be especially challenging, as it often comes with a natural decline in the body's functioning. With people now living longer than before, old age has become an important part of life that deserves more attention, especially when it comes to health and well-being. Getting older is not just a physical process it also affects how people think and feel.

As men and women age, they may face various health issues like chronic illnesses, slower movement, memory problems, and emotional concerns such as loneliness, stress, or depression. These issues can reduce their overall quality of life and need support from both healthcare professionals and the people around them. For men, one of the lesser-known effects of aging is the slow drop in testosterone levels, the main male hormone. This condition is called andropause or Late-Onset Hypogonadism (LOH). Unlike menopause in women, which happens suddenly and is widely talked about, andropause happens gradually and is often overlooked.

It usually starts after the age of 40 and can lead to symptoms like low energy, mood changes, reduced interest in sex, loss of muscle strength, memory problems, and even erectile dysfunction.

Even though many men experience these changes, andropause is still not well understood or properly diagnosed. A lot of men think these symptoms are just a normal part of getting older and don't seek medical help. Cultural beliefs, lack of awareness, and the pressure to "stay strong" often prevent men from talking about these problems or looking for treatment.

METHODOLOGY

The current research utilized a descriptive, non-experimental study design to assess the knowledge, attitudes, and severity of Andropause symptoms among middle-aged and elderly men. The study was conducted in the Urology and General Medicine Outpatient Departments (OPD) of a selected tertiary care center in a major city. The target group consisted of men ranging from 40 to 65 years of age, with 150 participants selected through a convenience sampling technique.

Inclusion criteria required men to be 40-65 years old, present at the OPD, willing to participate, and able to provide written informed consent. Exclusion criteria were applied to men with diagnosed severe psychiatric conditions, those already receiving testosterone replacement therapy, or individuals unavailable during the study period.

Data collection was carried out using a structured, multi-part questionnaire. This instrument included four main sections: socio-demographic information; Knowledge of Andropause (20 Multiple-Choice Questions); Attitude towards seeking professional help (10 Likert-scale items); and the Assessment of Andropause Symptoms using a standardized scale, such as the Aging Males' Symptoms (AMS) scale.

The scoring breakdown was as follows: Knowledge was scored from 0 to 20 (higher scores signifying greater knowledge); Attitude scores ranged from 10 to 50; and symptom severity was measured on a 10 to 70 scale (where higher scores denote more severe symptoms). The self-administered questionnaire was used to collect data over a specified time, ensuring participant anonymity and the freedom to exit the study at any point. The project received ethical clearance from the Institutional Ethics Committee, and written informed consent was obtained from every participant.

Plan for Data analysis:

The obtained data were analysed based on the objectives of the study by using descriptive and inferential statistics. Descriptive statistics such as frequency and percentage were used to describe the demographic and clinical variables, level of knowledge, and the severity of andropause symptoms among men attending the NCD clinic. Inferential statistics such as Karl Pearson's correlation coefficient were used to determine the relationship between the level of knowledge and the severity of andropause symptoms. The chi-square test was used to assess the association between the levels of knowledge and symptoms of andropause with selected demographic variables such as age, marital status, education, employment status, and area of residence.

RESULTS

The table 1 portrays that most of the men attending NCD clinic, 138(51.3%) were aged between 50 – 59 years, 135(50.2%) were married, 80(29.7%) had primary / Junior High School education, 79(29.4%) were unemployed, 96(35.7%) were residing in semi urban area, 58(21.6%) studied during their leisure time, 86(32%) were affiliated to Hinduism, 137(50.9%) had heard of it but don't know much about it, 99(36.8%) had not experienced any complications and 74(27.5%) had occasionally consumed alcohol, smoked or used drugs

The table 2 depicts the frequency and percentage distribution of knowledge of andropause among attending NCD clinic. It denotes that, 263(97.8%) had low level of knowledge and 6(2.2%) had moderate knowledge of andropause among men attending NCD clinic. The table 3 illustrates the frequency and percentage distribution of andropause symptoms among men attending NCD clinic. It shows that, 126(46.8%) had moderate symptoms, 118(43.9%) had severe symptoms and 25(9.3%) had mild andropause symptoms among men.

The table 4 portrays that most of the men attending the NCD clinic, 113 (42%) occasionally felt an increased need for sleep and often felt tired, 107 (39.8%) occasionally experienced a decline in general well-being, and 107 (39.8%) also occasionally reported decreased sex drive. Similarly, 106 (39.4%) experienced irritability, 105 (39.0%) had an occasional depressive mood, and 103 (38.3%) reported nervousness. Further, 102 (37.9%) occasionally reported lack of energy and a decrease in sexual ability, while 101 (37.5%) had occasional sleep problems and 101 (37.5%) felt they had passed their peak.

The Other frequently reported symptoms included decreased beard growth by 107 (39.7%) occasionally, decreased enjoyment of life by 96 (35.7%), decreased strength and endurance by 96 (35.7%), and joint/muscular pain by 94 (34.9%) occasionally. A noticeable percentage also experienced physical exhaustion (98 or 36.4%), and muscular strength decline (98 or 36.4%).

The table 5 shows that the mean score of knowledge of andropause was 8.03±1.49 and the mean score of andropause symptoms was 72.3±10.25. The calculated Karl Pearson's Correlation "r" value of r= -0.407 shows a mild negative correlation statistically significant at $p<0.01$ level which clearly infers that when knowledge of andropause among men attending NCD clinic improves or increases then their andropause symptoms among them reduces.

The table 6 shows that the demographic variable marital status ($X^2=23.694$, $p=0.0001$) had statistically significant association with level of knowledge of andropause among men attending NCD clinic at $p<0.001$ level and the other demographic variables had no statistically significant association with level of knowledge of andropause among men attending NCD clinic at $p<0.05$ level.

The table 7 shows that the demographic variable leisure time ($X^2=10.736$, $p=0.032$) had statistically significant association with level of andropause symptoms among men attending NCD clinic at $p<0.05$ level and the other demographic variables had no statistically significant association with level of andropause symptoms among men attending NCD clinic at $p<0.05$ level.

Table 1: Frequency and percentage distribution of demographic variables of the men attending NCD clinic. N=269

Demographic Variables	F	%
Age group (years)		
40 – 49	86	32.0
50 – 59	138	51.3
60 – 69	-	-
70	45	16.7
Marital status		
Single	49	18.2
Married	135	50.2
Divorced	7	2.6
Widowed	78	29.0
Education		
Primary / Junior High School	80	29.7
Illiterate	64	23.8
Senior high / College diploma	65	24.2
Academic education	60	22.3
Employment		
Self-employment	67	24.9
Government job	54	20.1
Retired	69	25.7
Unemployed	79	29.4
Area of residence		
Rural	84	31.2
Urban	89	33.1
Semi urban	96	35.7

Leisure time		
Religious meeting	31	11.5
Running / Sport	48	11.8
Spend time with friends and relatives	34	12.6
Going to the park	50	18.6
Study	58	21.6
TV/WhatsApp/Facebook	48	17.8
What is your religion affiliation?		
Christianity	47	17.5
Islam	30	11.2
Hinduism	86	32.0
Buddhism	39	14.5
Atheism / Agnosticism	27	10.0
Others	40	14.9
Before this survey, how familiar were you with the concept of andropause (male menopause)?		
I have never heard of it	132	49.1
I have heard of it but don't know much about it	137	50.9
I have some knowledge about it	-	-
I am very familiar with it	-	-
I prefer not to say	-	-
Have you experienced or been diagnosed with any complications related to the reproductive system?		
No, I have not experienced any complications	99	36.8
Yes, erectile dysfunction	17	6.3
Yes, low testosterone levels.	38	14.1
Yes, infertility or reduced fertility	11	4.1
Yes, prostate-related issues (e.g., prostatitis, enlarged prostate)	25	9.3
Yes, other (please specify)	35	13.0
Prefer not to say	44	16.4
"Do you consume alcohol, smoke, or use drugs?"		
Yes, regularly	65	24.2
Yes, occasionally	74	27.5
I have tried but do not use regularly	67	24.9
No, never	63	23.4

Table 2: Frequency and percentage distribution of knowledge of andropause among men attending NCD clinic. N=269

Level of Knowledge	Frequency	Percentage (%)
Very low knowledge (0 – 5)	-	-
Low knowledge (6 – 10)	263	97.8
Moderate knowledge (11 – 15)	6	2.2
High knowledge (16 – 20)	-	-

Table 3: Frequency and percentage distribution of andropause symptoms among men attending NCD clinic. N=269

Level of Andropause Symptoms	Frequency	Percentage (%)
Mild symptoms (25 – 50)	25	9.3
Moderate symptoms (51 – 75)	126	46.8
Severe symptoms (76 – 100)	118	43.9
Very severe symptoms (101 – 125)	-	-

Table 4: Frequency and percentage distribution of item wise andropause symptoms among men attending NCD clinic. N=269

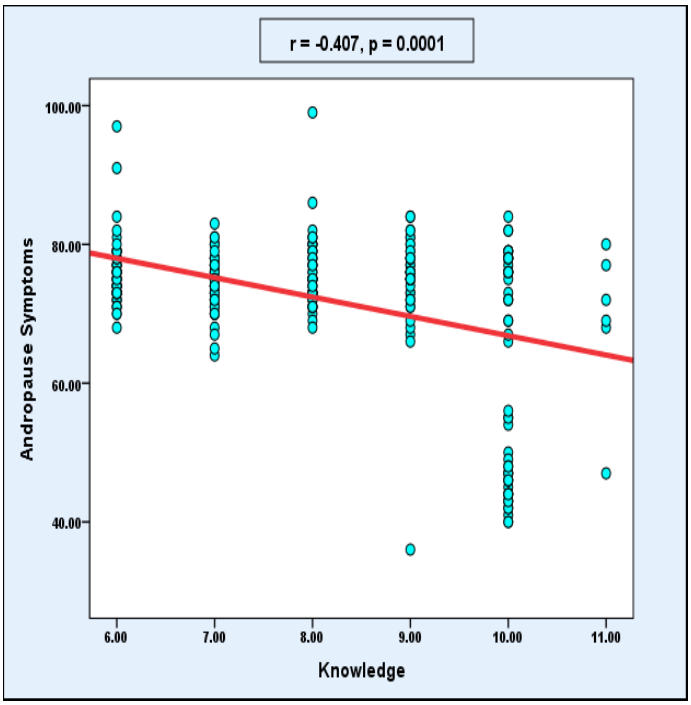
Items	Respondents' Section									
	1 (Never)		2 (Rarely)		3 (Sometimes)		4 (Often)		5 (Always)	
	F	%	F	%	F	%	F	%	F	%
1. Fall asleep after dinner	0	0	112	41.6	75	27.9	82	30.5	0	0
2. Joint and muscular pain	1	0.4	94	34.9	81	30.1	93	34.6	0	0
3. Increased need for sleep, often feeling tired	0	0	113	42.0	67	24.9	89	33.1	0	0
4. Decrease in the ability to perform sexually and the frequency of sexual activity	1	0.4	102	37.9	83	30.9	83	30.9	0	0
5. Sleep problems	2	0.7	101	37.5	84	31.2	82	30.5	0	0
6. Notice decreased enjoyment of life	5	1.9	96	35.7	79	29.4	89	33.1	0	0
7. Decline in feeling of general well-being	2	0.7	107	39.8	78	29.0	82	30.5	0	0
8. Have decreased sex drive	4	1.5	107	39.8	81	30.1	77	28.6	0	0
9. Decrease in sexual desire/libido	5	1.9	94	34.9	84	31.2	86	31.9	0	0
10. Decrease in the number of morning erections	3	1.1	91	33.8	84	31.2	91	33.8	0	0
11. Feeling burnt out, have hit rock-bottom	10	3.7	91	33.8	81	30.1	87	32.3	0	0
12. Notice a decrease in my ability to play sports	7	2.6	97	36.1	94	34.9	71	26.4	0	0
13. Decrease in muscular strength	5	1.9	98	36.4	82	30.5	84	31.2	0	0
14. Notice a lack of energy	8	2.9	102	37.9	70	26.0	89	33.1	0	0
15. Notice a decrease in strength and endurance	8	2.9	96	35.7	80	29.7	85	31.6	0	0

16. Excessive sweating	11	4.1	95	35.3	77	28.6	86	31.9	0	0
17. Irritability	6	2.2	106	39.4	75	27.9	82	30.5	0	0
18. Physical exhaustion/lacking vitality	13	4.8	98	36.4	84	31.2	74	27.5	0	0
19. Nervousness	8	2.9	103	38.3	85	31.6	73	27.1	0	0
20. Anxiety	10	3.7	83	30.9	91	33.8	85	31.6	0	0
21. Feeling that you have passed your peak	7	2.6	101	37.5	94	34.9	67	24.9	0	0
22. Decrease in beard growth	7	2.6	107	39.7	87	32.3	68	25.3	0	0
23. Depressive mood	10	3.7	105	39.0	69	25.6	85	31.6	0	0
24. Sadder/more grumpy than usual	3	1.1	107	39.8	80	29.7	79	29.4	0	0
25. Feel like losing height	2	0.7	93	34.6	83	30.9	91	33.8	0	0

Table 5: Correlation between knowledge of andropause and andropause symptoms among men attending NCD clinic. N=269

Variables	Mean	S.D	Karl Pearson's Correlation "r" & p-Value
Knowledge	8.03	1.49	**r= -0.407**
Andropause symptoms	72.3	10.25	**p=0.0001, S****

**p<0.01, S – Significant



DISCUSSION

This chapter discusses in detail about the findings of the study interpreted from the statistical analysis, in accordance with the objectives of the study and further discussion will illustrate the fulfilment of objective by the study findings. The purpose of the study was to assess the knowledge and experience of andropause symptoms in men attending NCD clinic in IGGGH & PGI Puducherry.

CONCLUSION

The study conducted on men attending the NCD clinic at IGGGH & PGI, Puducherry, concluded that there is a severe and pervasive knowledge deficit regarding Andropause, with an overwhelming 97.8% of participants categorized as having low knowledge. Despite this lack of awareness, the population exhibited a high clinical burden, with over 90% of men reporting moderate-to-severe symptoms, including frequent complaints of increased fatigue, decreased sex drive, irritability, and a decline in general well-being. Significantly, the research established a mild negative correlation ($r = -0.407, p < 0.05$) between knowledge and symptom severity, suggesting that increased awareness may serve as a protective factor

against the adverse experience of symptoms. Furthermore, the study identified key demographic associations: a man's marital status was significantly associated with his level of knowledge ($p < 0.001$), and the way he utilized his leisure time was significantly associated with the severity of his symptoms ($p < 0.05$). These findings collectively underscore the urgent need for routine Andropause screening and targeted health education programs in clinical settings, particularly those that involve lifestyle modification and spousal communication, to mitigate the widespread impact of male hormonal aging.

REFERENCES

1. Kang S, Park HJ, Park NC. Serum total testosterone level and identification of late-onset hypogonadism: A community-based study. Korean J Urol [Internet]. 2013 Sep [cited 2025 Jun 29];54(9):619–23. Available from: https://pubmed.ncbi.nlm.nih.gov/24044097/
2. Taher A. Proportion and acceptance of andropause symptoms among elderly men: a study in Jakarta - PubMed [Internet]. [cited 2025 Jun 29]. Available from: https://pubmed.ncbi.nlm.nih.gov/20066789/
3. M A, S P, A S. Awareness of andropause in males: a North Indian study - PubMed [Internet]. Int J Pharn. 2015 [cited 2025 Jun 29]. p. 453–8. Available from: https://pubmed.ncbi.nlm.nih.gov/23508480/
4. S A, K O, M O. Knowledge and experiences of andropause among men in Lagos, Nigeria - PubMed [Internet]. West Afr J Med. 2006 [cited 2025 Jun 29]. p. 106–12. Available from: https://pubmed.ncbi.nlm.nih.gov/17939310/
5. Singh P. Andropause: Current concepts. Indian J Endocrinol Metab [Internet]. 2013 [cited 2025 Jun 29];17(Suppl 3):621. Available from: https://pubmed.ncbi.nlm.nih.gov/24910824/
6. Reine M, Vivien S. Experiences of Men with Andropause. 2012;4(January):168–85.
7. Balasubramanian, Maraicar SH, Ananth B, Vijayakumar, Dhanalakishmi. DHEA: The remedy for andropause. Indian J Med Healthc. 2012;1(2).
8. LC S, AA O. Andropause (Male Menopause): Valid Concepts, Fables and Controversies. Univ Lagos J Basic Med Sci [Internet]. 2022 Aug 31 [cited 2025 Jun 29];1(1). Available from: https://jbms.unilag.ng/index.php/jbms/article/view/113
9. Guo DP, Eisenberg ML. Andrology: Puberty-Fertility-Andropause. Men's Heal [Internet]. 2016 [cited 2025 Jun 29];109–20. Available from: https://link.springer.com/chapter/10.1007/978-1-4939-3237-5_9
10. Wang C, Nieschlag E, Swerdloff R, Behre HM, Hellstrom WJ, Gooren LJ, et al. Investigation, treatment, and monitoring of late-onset hypogonadism in males: ISA, ISSAM, EAU, EAA, and ASA recommendations. J Androl [Internet]. 2009 Jan 2 [cited 2025 Jun 29];30(1):1–9. Available from: /doi/pdf/10.2164/jandrol.108.006486
11. Kang S, Park HJ, Park NC. Serum total testosterone level and identification of late-onset hypogonadism: A community-based study. Korean J Urol [Internet]. 2013 Sep [cited 2025 Jun 29];54(9):619–23. Available from: https://pubmed.ncbi.nlm.nih.gov/24044097/
12. Taher A. Proportion and acceptance of andropause symptoms among elderly men: a study in Jakarta - PubMed [Internet]. [cited 2025 Jun 29]. Available from: https://pubmed.ncbi.nlm.nih.gov/20066789/
13. M A, S P, A S. Awareness of andropause in males: a North Indian study - PubMed [Internet]. Int J Pharn. 2015 [cited 2025 Jun 29]. p. 453–8. Available from: https://pubmed.ncbi.nlm.nih.gov/23508480/
14. S A, K O, M O. Knowledge and experiences of andropause among men in Lagos, Nigeria - PubMed [Internet]. West Afr J Med. 2006 [cited 2025 Jun 29]. p. 106–12. Available from: https://pubmed.ncbi.nlm.nih.gov/17939310/
15. Singh P. Andropause: Current concepts. Indian J Endocrinol Metab [Internet]. 2013 [cited 2025 Jun 29];17(Suppl 3):621. Available from: https://pubmed.ncbi.nlm.nih.gov/24910824/
16. Reine M, Vivien S. Experiences of Men with Andropause. 2012;4(January):168–85.
17. Balasubramanian, Maraicar SH, Ananth B, Vijayakumar, Dhanalakishmi. DHEA: The remedy for andropause. Indian J Med Healthc. 2012;1(2).
18. LC S, AA O. Andropause (Male Menopause): Valid Concepts, Fables and Controversies. Univ Lagos J Basic Med Sci [Internet]. 2022 Aug 31 [cited 2025 Jun 29];1(1). Available from: https://jbms.unilag.ng/index.php/jbms/article/view/113
19. Guo DP, Eisenberg ML. Andrology: Puberty-Fertility-Andropause. Men's Heal [Internet]. 2016 [cited 2025 Jun 29];109–20. Available from: https://link.springer.com/chapter/10.1007/978-1-4939-3237-5_9
20. Wang C, Nieschlag E, Swerdloff R, Behre HM, Hellstrom WJ, Gooren LJ, et al. Investigation, treatment, and monitoring of late-onset hypogonadism in males: ISA, ISSAM, EAU, EAA, and ASA recommendations. J Androl [Internet]. 2009 Jan 2 [cited 2025 Jun 29];30(1):1–9. Available from: /doi/pdf/10.2164/jandrol.108.006486
21. Myers JB, Meacham RB. Androgen Replacement Therapy in the Aging Male. Rev Urol [Internet]. 2003 May [cited 2025 Jun 29];5(4):216. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC1508369/
22. Selvin E, Feinleib M, Zhang L, Rohrmann S, Rifai N, Nelson WG, et al. Androgens and Diabetes in MenResults from the Third National Health and Nutrition Examination Survey (NHANES III). Diabetes Care [Internet]. 2007 Feb 1 [cited 2025 Jun 29];30(2):234–8. Available from: https://dx.doi.org/10.2337/dc06-1579

Cite this article as: Prithvi Ram. C and J. Jasmine (2026). Assess the knowledge and experience of andropause symptoms among men attending the NCD clinic at IGGGH & PGI, Puducherry. *International Journal of Innovative Research in Health Science*, 2(1), 7-13.