International Journal of Community Medicine and Public Health
*Verma S et al. Int J Community Med Public Health. 2026 Feb;13(2):726-731*
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040
DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20260298

**Original Research Article**

# Study of determinants and predictive risk of cardiovascular disease among adult males in Aligarh: a cross-sectional study

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**Received:** 01 September 2025
**Accepted:** 16 January 2026

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## ABSTRACT

**Background:** Non-communicable diseases (NCDs) result from genetic, physiological, environmental and behavioural factors in combination. NCDs kill around 41 million people a year, equivalent to three-quarters of deaths worldwide. QRISK is a well-established cardiovascular disease (CVD) risk score, in use across the NHS since 2009, which is designed to identify people at high risk of developing CVD who need to be recalled and assessed in more detail to reduce their risk of developing CVD.
**Methods:** This was a cross-sectional study conducted under the department of community medicine in rural and urban health training centre of JNMC AMU, Aligarh, India, during 2019 to 2020 with a sample size of 204.
**Results:** A total of 204 males in the age group of 25 to 84 years were study participants. Among all, 32.8% participants were physically active, 52.0% participants were current smokers, 27.0% participants were overweight, and 5.4% were found to be obese. The prevalence of raised blood sugar was 21.1% and raised blood pressure in 23% participants. According to the QRISK2 score developed in 2017, participants at high risk (≥20%) were 26.5%.
**Conclusions:** Cardiovascular disease risk factors, smoking, lack of physical activity, diabetes, raised blood pressure, overweight and obesity by BMI, and abdominal obesity and also 10-year cardiovascular risk are higher than the studies conducted for these risk factors in India. Health education, early diagnosis should be imparted to the general population.

**Keywords:** Cardiovascular risk, Hypertension, Non-communicable diseases, Obesity, Physical activity, Risk prediction

## INTRODUCTION

Non-communicable diseases (NCDs), also known as chronic diseases, are of longer duration and result from genetic, physiological, environmental and behavioural factors in combination. NCDs kill 41 million people in a year, equivalent to 74% of all deaths worldwide. Each year, 17 million people die from NCD before age 70, and among them, 86% of these early deaths occur in low- and middle-income countries.[1] Among these groups of diseases most important cardiovascular diseases (CVDs) are coronary heart disease, stroke, and peripheral vascular disease. Globally, an increase in mortality from 12.1 million to 18.6 million due to CVD was observed during the period from 1990 to 2019.[2] Worldwide mortality from communicable, maternal, perinatal, and nutritional disorders was expected to decline in the baseline scenario from 17.2 million deaths in 1990 to 10.3 million in 2020, and non-communicable disease mortality will increase from 28.1 million deaths in 1990 to 49.7 million in 2020.[3] In India, the total burden of CVD deaths and disability-adjusted life years (DALYs) in 2016 was 28.1% and 14.1% which were 15.2% and 6.9 % respectively, in 1990. Currently, in western populations, only 23% of

CVD deaths occur before the age of 70, whereas in India, this incidence is 52%. Also, the case fatality contributing to CVD in low-income countries, including India, appears to be much higher than in middle and higher-income countries.[4] Unhealthy diets and a lack of physical activity may land up into raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called metabolic risk factors and can lead to cardiovascular disease, the leading NCD in terms of premature deaths.[5] CVD risk prediction can be used to raise population awareness of diseases (such as CVD) that cause a significant burden of morbidity and mortality, to increase knowledge about that risk to individuals, and to motivate adherence to recommended lifestyle modifications and interventions.[6] Over the past two decades, many prediction models have been developed, which mathematically combine multiple predictors to estimate the risk of developing CVD in a time frame- for example, the Framingham, SCORE, and QRISK models.[7] The major risk prediction scores, like the World Health Organisation/International Society of Hypertension (WHO/ISH) charts.[8]

There is a positive association in young adults, especially the male population, with risk factors, and an increasing incidence of cardiovascular disease among them and a lack of such research in this geographical region is the rationale behind conducting this study. The prediction of risk and prevalence of risk factors for cardiovascular disease can greatly help in the management and prevention of CVDs, as well as in designing long-term policies and programs in this sector. With most of the studies being conducted in Southern India, there is still a lot to be explored in this context in north India, especially in urban slums and rural areas, where the population has minimal access to healthcare and facilities. Therefore, this study was conducted with the objectives of finding the prevalence of risk factors responsible for CVDs and the prediction of the 10-year risk of CVD events in the study population.

## METHODS

This was a community-based cross-sectional study, conducted from September 2019 to August 2020, under the urban health training centre (UHTC) which is located on Qila Road 2 km away from JNMC, AMU, Aligarh and rural health training centre (RHTC), Jawan which is a block comprising six registered villages 17 km away from JNMC, AMU, Aligarh. These two are the field practice areas of the department of community medicine, JNMC, Muslim University Aligarh.

### *Sample size*

The sample size was calculated by using the formula for the estimation of proportion for a sample situation. The prevalence rate of 15% for diabetes in the study was used to calculate the sample size for the present study, using the formula $n=Z_{\alpha}pq/L^2$. Where n- estimated sample size, p- prevalence of diabetes, which was lowest among the known risk factors of CVD to be studied in a known population =15%.[9] By using an absolute error of 5% the sample size came out to be 204.

### *Sampling method*

The field practice areas of UHTC are four peri-urban localities, Firdaus Nagar, Nagla Qila, Patwari ka Nagla and Sahanshabad, within a radius of 2-3 km from the centre. The rural health training centre (RHTC) is located at Jawan includes six nearby villages, Jawan, Sumera, Tejpur, Chhota Jawan, Garhiya Bhojpur and Jawan Sikandarpur, are registered at RHTC and families under it are provided with health services. Before the start of the study, a list of registered households in the study area was collected with the help of medico-social workers in the department of community medicine. The sample of 102 was drawn from each rural and urban area. Households were selected by using systematic random sampling. Informed consent was taken from participants. After that interview was conducted using a pretested, semi-structured questionnaire. The study participants were adult males aged 25-85 years without any history of CVD. The participants who consented to take part in the study were informed one day prior to maintain an overnight fast of a minimum of 8 hours till their fasting blood glucose level was measured. After obtaining the written informed consent, participants were interviewed using a semi-structured questionnaire, which was pretested on a group of 30 individuals before final implementation. The participants were subjected to anthropometric measurements (i.e., height and weight), assessment of blood pressure and fasting blood sugar. Weight was calculated using an electronic weighing machine, Omron HN-286 digital weighing scale with 200 kg capacity, with an accuracy of 100 gm, and height was measured using a stadiometer. Blood pressure was measured using Dr Morepen's Aneroid Sphygmomanometer with two different-sized cuffs- one medium and one large size. A glucometer (Gluco-One Blood Glucose Monitoring System Model- BG 03 Auto) to measure blood glucose was used. The predictor variables for the risk prediction were age, gender, smoking, blood pressure, coexistence of diabetes. QRISK is a well-established cardiovascular disease (CVD) risk score, in use across the NHS since 2009, which is designed to identify people at high risk of developing CVD who need to be recalled and assessed in more detail to reduce their risk of developing CVD.[10]

### *Operational definitions*

BMI values indicate the following: <18.5: underweight, 18.5-24.9: normal weight, ≥25.0: overweight, ≥30.0: obesity.11-12 Obesity was taken as a waist circumference ≥80 cm for females and ≥90 cm for males. Waist-hip ratio is waist circumference: hip circumference considered obesity, waist to hip ratio (≥0.80 for females and ≥0.90 for males).[13] Smoking was stratified into never used, past

and current use.[9] Hypertension is defined as blood pressure ≥140 mm of Hg systolic and/or ≥90 mm of Hg diastolic, and/or currently on drugs for high blood pressure.[14] Diabetes mellitus is a fasting blood glucose value ≥126 mg/dl, and/or if there is current use of medications for diabetes.[9] Physical activity was defined for a week, including activities for work, during transport and leisure time, adults should do at least 150 minutes of moderate-intensity physical activity or 75 minutes of vigorous-intensity physical activity or an equivalent combination of moderate- and vigorous-intensity physical activity, achieving at least 600 MET-minutes.[15] Cardiovascular event (myocardial infarction or stroke), according to age, sex, blood pressure, smoking status, total blood cholesterol and presence or absence of diabetes mellitus for 14 WHO epidemiological sub-regions. QRISK 2 score (2017) high CVD score was labelled when the 10-year calculated risk was >20%.[16]

### *Inclusion criteria*

Males falling in the adult age group, i.e. 25 to 85 years and Males who gave consent for participating in the study.

### *Exclusion criteria*

Seriously ill or bedridden patients and those who have ever had an episode of CVD.

### *Statistical analysis*

Data was analysed using IBM SPSS 20.0 Package (Statistical Package of Social Science). For descriptive statistics, frequency, percentage, graphs and cross tabs were used to present results.

### *Ethical consideration*

Permission was taken from the ethical committee of J. N. Medical College, AMU Aligarh. Informed consent was taken from the individuals participating in the study. If any patient was found to have any problem, referral to the appropriate centre was made.

## RESULTS

A total of 204 male participants falling in the age group of 25 to 84 years were included in the study. This study was designed to fulfil two purposes in our study population. These were, to determine the prevalence of various risk factors responsible for cardiovascular disease, and to calculate the 10-year predictive risk of cardiovascular diseases.

Table 1 shows that the males in the study population belonged to the age group 45-54 years, i.e. 35.3%, followed by 55-65 years (25.5%). 27% of the study participants belonged to the general, 55% to the OBC and 16.7% to the scheduled caste category. 84.8% of the participants belonged to nuclear families, and most of them were heads of their families too. 14.2% males belonged to joint families, and only 1% of them belonged to extended families. 20.1% of the males were illiterate, while 25% were educated up to primary school. 18.1%, 14.7% and 9.3% males had middle (8th), secondary (10th) and intermediate level education, respectively, while 2.5% had an education of professional level.

**Table 1: Sociodemographic characteristics of the study participants (n=204).**

| Characteristics | Total | Percentage |
|---|---|---|
| **Age in years** | | |
| 25-44 | 47 | 23.0 |
| 45-64 | 124 | 60.8 |
| 65-84 | 33 | 16.5 |
| **Religion** | | |
| Hindu | 125 | 61.3 |
| Islam | 79 | 38.7 |
| **Caste category** | | |
| General | 56 | 27.5 |
| OBC | 114 | 55.9 |
| SC | 34 | 16.7 |
| **Family type** | | |
| Nuclear | 173 | 84.8 |
| Joint | 31 | 15.2 |
| **Education** | | |
| Illiterate | 41 | 20.1 |
| Primary | 51 | 25.0 |
| Middle School | 37 | 18.1 |
| High School | 30 | 14.7 |
| Intermediate | 19 | 9.3 |
| Graduate or PG | 21 | 10.3 |
| Professional | 05 | 2.5 |
| **Occupation** | | |
| Unemployed | 18 | 8.8 |
| Unskilled | 83 | 40.7 |
| Semiskilled | 51 | 25.0 |
| Skilled | 10 | 4.9 |
| Clerical/Shop/Farmer | 33 | 16.2 |
| Semi-Professional | 05 | 2.5 |
| Professional | 04 | 2.0 |
| **Modified BG prasad classification (2019)** | | |
| Class (I) ≥ Rs7008 | 08 | 3.9 |
| Class (II) Rs 3504-7007 | 16 | 7.8 |
| Class (III)Rs 2102-3503 | 32 | 15.7 |
| Class (IV) Rs 1051-2101 | 60 | 33.3 |
| CLASS (V) ≤Rs1050 | 80 | 39.2 |

### *Lifestyle*

Table 2 indicates, total males interviewed, 11.3% were known cases of diabetes mellitus 11.3% of the males were known cases of hypertension. Also in the study, 52.0% were current smokers, 11.8% were past smokers, and 36.2% never smoked cigarettes or any form of

smoking, including bidi, Chilam or hookah. In Table 2, as per the global physical activity questionnaire (GPAQ) developed by WHO, 36.8.% of the males had physical activity less than 600 MET (minute equivalents), which is considered inadequate for a normal adult. In the study population as in Table 2, half of the households used both types of cooking medium, i.e. mustard and refined oils, followed by mustard oil 41%, and only 8.8% of households used refined oil.

**Table 2: Lifestyle and dietary habits of the study participants (n=204).**

| Characteristics | Frequency | Percentage |
|---|---|---|
| **Known case of diabetes mellitus** | 23 | 11.3 |
| **Known case of hypertension** | 23 | 11.3 |
| **Smoking** | | |
| Never | 74 | 36.2 |
| Past | 24 | 11.8 |
| Current | 106 | 52.0 |
| **Physical activity (GPAQ)** | | |
| ≥600 Met | 129 | 63.2 |
| <600 Met | 75 | 36.8 |
| **Cooking medium** | | |
| Refined oil | 18 | 8.8 |
| Mustard oil | 84 | 41.2 |
| Both | 102 | 50.0 |
| **Type of food** | | |
| Vegetarian | 54 | 26.5 |
| Non-vegetarian | 150 | 73.5 |

***Anthropometric measurements***

Among the study participants as in Figure 1 shows that 55.9% were normal, 27.0% were overweight, 5.4% were found to be obese, while 11.8% were underweight. Taking the waist circumference ≥90 cm as an anthropometric measure for obesity, 50% of males were found to be obese. While considering obesity according to the classification by waist size ≥0.9 for males, 82.8% of males were found to be obese as shown in Table 3.

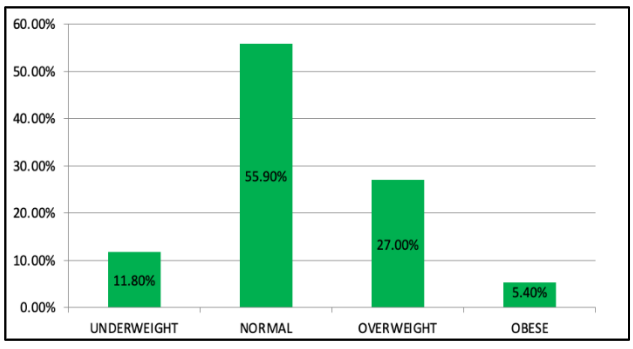


**Figure 1: Distribution of study population according to anthropometric measurements (n=204).**

**Table 3: Distribution of study population according to anthropometric measurements and prevalence of raised blood sugar and raised blood pressure (n=204).**

| Characteristics | Total | Percentage |
|---|---|---|
| **Raised blood pressure** | 47 | 23.0 |
| **Raised blood sugar** | 43 | 21.1 |
| **Waist circumference (≥90 cm)** | 102 | 50.0 |
| **Waist to hip ratio (≥0.9)** | 169 | 82.8 |

***Raised blood pressure and raised sugar***

In Table 3, overall prevalence of raised blood sugar (≥126 mg/dl) among the adult male population was 21.1%. In the present study overall prevalence of raised blood pressure, systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg or both, was found in 23% of adult male participants.

***QRISK2 risk score***

According to the QRISK2 score, developed in 2017 for calculating the 10-year risk of CVD. In the present study, adult males who were at high risk (≥20%) were 26.5%, and 73.5% of participants were at low risk (low <20%) shown in Figure 2.

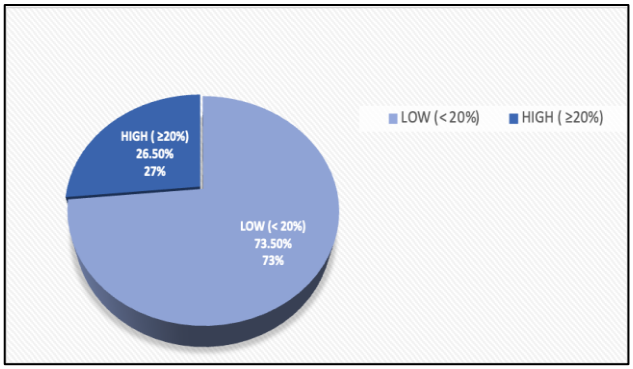


**Figure 2: Prevalence of QRISK 2 score of 10-year risk of CVD (n=204).**

## DISCUSSION

The present study finds that the prevalence of cardiovascular disease risk factors, smoking, lack of physical activity, diabetes, raised blood pressure, overweight and obesity by BMI, and abdominal obesity are higher. than the studies. Out of all participants, 52.0% were current smokers, 11.8% were past smokers, which was similar to national trends as per NFHS-5 and other studies.[17,18] 36.8% of the participants have physical activity of less than 600 MET. Similar results were found in a cross-sectional study conducted in the urban area of Pondicherry and other studies.[19,20] Anthropometric measurements as per the WHO classification of BMI showed important results. Among the study participants, 27.0% males were overweight, and 5.4% males were found to be obese. Similar results were seen in other

studies in the same kind of setup and population characteristics.[21] Other cross-sectional studies showed that overweight and obese participants were 31% and 34% respectively.[22,23] If we consider waist circumference ≥90 cm as an anthropometric measure for obesity, 50% males were found to be obese in our study, which was less than in other studies.[9,24]

The NFHS-5 data depict the mean prevalence of raised blood pressure to be 15%.[25] A study conducted recorded the prevalence of hypertension as 28%.[9] In the present study, the overall prevalence of raised blood sugar (≥126 mg/dl) among the adult male population was 21.1% similar to studies.[26,27]

Figure 2 shows that participants who were at high CVD risk (≥20%) were 26.5%. In a research conducted on Gujarati Indians using QRISK2, 15% of the participants screened had a high score.[24] In another study, a CVD risk assessment within the work environment, over one quarter of workers assessed had of 10-year CVD risk.[28] A cross-sectional study at a tertiary care centre in Delhi, QRISK 2 score high risk 9.6% in males.[29] Another research in UK, high risk was present among 75% of study male participants. In one of the researches in south London, UK, 86% male were at high risk.[19,30]

## CONCLUSION

Predictive risk of cardiovascular disease for the next ten years was calculated using scoring in the study population. QRISK 2 score, 26.5% adult males were at high risk and other risk factors were also in higher prevalence than National average. Some recommendations on the basis of findings are as follows: Health education should be imparted to the general population regarding healthy dietary habits, benefits of physical activity and a healthy lifestyle. Early diagnosis and proper treatment of metabolic risk factors like hypertension, diabetes mellitus should be done. Moderate-vigorous physical activity, such as brisk walking, should be undertaken for a minimum duration of 30 minutes at least 5 days a week. Integration of physical activity in daily routine should be done rather than indulging in just leisure-time exercise. Further studies should be carried out in Uttar Pradesh and other districts to assess the magnitude and causative factors behind the rise of risk factors of CVD and various determinants.

*Funding: No funding sources*
*Conflict of interest: None declared*
*Ethical approval: The study was approved by the Institutional Ethics Committee*

## REFERENCES

1. WHO. Non communicable diseases. Available at: https://www.who.int/newsroom/factsheets/detail/non communicable-diseases. Accessed on 26 July 2023.
2. Roth GA, Mensah GA, Johnson CO, Addolorato G, Ammirati E, Baddour LM, et al. Global burden of cardiovascular diseases and risk factors, 1990-2019: update from the GBD 2019 study. J Am Coll Cardiol. 2020;76(25):2982-3021.
3. Prabhakaran D, Jeemon P, Sharma M, Roth GA, Johnson C, Harikrishnan S, et al. The changing patterns of cardiovascular diseases and their risk factors in the states of India: the Global Burden of Disease Study 1990-2016. Lancet Glob Health. 2018;6(12):e1339-51.
4. Prabhakaran D, Jeemon P, Roy A. Cardiovascular diseases in India: current epidemiology and future directions. Circulation. 2016;133(16):1605-20.
5. WHO. Non communicable diseases. Available at: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases. Accessed on 26 July 2023.
6. Lloyd-Jones DM. Cardiovascular risk prediction: basic concepts, current status, and future directions. Circulation. 2010;121(15):1768-77.
7. Damen JA, Hooft L, Schuit E, Debray TP, Collins GS, Tzoulaki I, et al. Prediction models for cardiovascular disease risk in the general population: systematic review. BMJ. 2016;353.
8. WHO CVD Risk Chart Working Group. World Health Organization cardiovascular disease risk charts: revised models to estimate risk in 21 global regions. Lancet Glob Health. 2019;7(10):e1332-45. Erratum in: Lancet Glob Health. 2023;11(2):e196.
9. Krishnan MN, Zachariah G, Venugopal K, Mohanan PP, Harikrishnan S, Sanjay G, et al. Prevalence of coronary artery disease and its risk factors in Kerala, South India: a community-based cross-sectional study. BMC Cardiovasc Disord. 2016;16(1):12.
10. Ludwig VM, Bayley A, Cook DG, Stahl D, Treasure JL, Asthworth M, et al. Association between depressive symptoms and objectively measured daily step count in individuals at high risk of cardiovascular disease in South London, UK: a cross-sectional study. BMJ Open. 2018;8(4):e020942.
11. WHO. A healthy lifestyle- WHO recommendations. Available at: https://www.who.int/europe/news-room/fact-sheets/item/a-healthy-lifestyle---who-recommendations. Accessed on 31 August 2023.
12. WHO. Obesity and overweight. Available at: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight. Accessed on 26 August 2023.
13. Babu GR, Murthy GV, Ana Y, Patel P, Deepa R, Neelon SE, et al. Association of obesity with hypertension and type 2 diabetes mellitus in India: A meta-analysis of observational studies. World J Diabetes. 2018;9(1):40.
14. WHO. Hypertension fact sheet. Available at: https://www.who.int/news-room/fact-sheets/detail/hypertension. Accessed on 2 September 2023.

15. Global Physical Activity Questionnaire (GPAQ) Analysis Guide. Available at: https://www.who.int/docs/default-source/ncds/ncd-surveillance/gpaq-analysis-guide.pdf. Accessed on 26 August 2023.
16. Ludwig VM, Bayley A, Cook DG, Stahl D, Treasure JL, Asthworth M, et al. Association between depressive symptoms and objectively measured daily step count in individuals at high risk of cardiovascular disease in South London, UK: a cross-sectional study. BMJ Open. 2018;8(4):e020942.
17. Ministry of Health andFamily Welfare. National Family Health Survey (NFHS-5), 2019-21. Available at: https://dhsprogram.com/pubs/pdf/FR375/FR375.pdf. Accessed on 6 August 2023.
18. Nazari AJ, Simon NH, Akinola A, Kaushik M. Prevalence of tobacco consumption among men in Amarpur Village, Uttar Pradesh, India, May 2019: a cross-sectional study. CHRISMED J Health Res. 2020;7(2):115-21.
19. Newtonraj A, Murugan N, Singh Z, Chauhan RC, Velavan A, Mani M. Factors associated with physical inactivity among adult urban population of Puducherry, India: a population based cross-sectional study. Journal of clinical and diagnostic research: J Clin Diagn Rea. 2017;11(5):LC15.
20. Aslesh OP, Mayamol P, Suma RK, Usha K, Sheeba G, Jayasree AK. Level of physical activity in population aged 16 to 65 years in rural Kerala, India. Asia Pac J Public Health. 2016;28(1_suppl):53S-61S.
21. Meshram II, Rao MV, Rao VS, Laxmaiah A, Polasa K. Regional variation in the prevalence of overweight/obesity, hypertension and diabetes and their correlates among the adult rural population in India. Br J Nutr. 2016;115(7):1265-72.
22. Kumar C, Kiran KA, Sagar V, Kumar M. Association of hypertension with obesity among adults in a rural population of Jharkhand. Int J Med Sci Public Health. 2016;5(12):2545-9.
23. Zafar KS, Pious T, Singh PS, Gautam RK, Yadav SK, Singh P, et al. Prevalence of metabolic syndrome in a rural population-a cross sectional study from western Uttar Pradesh, India. Int J Res Med Sci. 2017;5(5):2223.
24. Rao N, Eastwood SV, Jain A, Shah M, Leurent B, Harvey D, et al. Cardiovascular risk assessment of South Asians in a religious setting: a feasibility study. Int J Clin Pract. 2012;66(3):262-9.
25. Seenappa K, Kulothungan V, Mohan R, Mathur P. District-wise heterogeneity in blood pressure measurements, prehypertension, raised blood pressure, and their determinants among Indians: National Family Health Survey-5. Int J Public Health. 2024;69:1606766.
26. Shivaramakrishna HR, Wantamutte AS, Sangolli HN, Mallapur MD. Risk factors of coronary heart disease among bank employees of Belgaum city-Cross-sectional study. Al Ameen J Med Sci. 2010;3(2):152-9.
27. Thakur P, Heena, Shefi, Chand M, Narang K, Ghai S. Assessment of total cardiovascular risk using WHO/ISH risk prediction charts in Chaman Colony, Dhanas, Chandigarh in India. Res Rev J Med. 2017;7(2):1-6.
28. Gray BJ, Bracken RM, Turner D, Morgan K, Mellalieu SD, Thomas M, et al. Prevalence of undiagnosed cardiovascular risk factors and 10-year CVD risk in male steel industry workers. J Occup Environ Med. 2014;56(5):535-9.
29. Aggarwal P, Sinha SK, Khanra D, Nath RK, Gujral J, Reddy KK, et al. Comparison of original and modified Q risk 2 risk score with Framingham risk score- an Indian perspective. Indian Heart J. 2021;73(3):353-8.
30. Salisbury C, O'Cathain A, Thomas C, Edwards L, Montgomery AA, Montgomery A, et al. An evidence-based approach to the use of telehealth in long-term health conditions: development of an intervention and evaluation through pragmatic randomised controlled trials in patients with depression or raised cardiovascular risk. Prog Grants Appl Res. 2017;5(1):1-468.

**Cite this article as:** Verma S, Shah MS, Ahmad A, Khalil S. Study of determinants and predictive risk of cardiovascular disease among adult males in Aligarh: a cross-sectional study. Int J Community Med Public Health 2026;13:726-31.