

National Research Institute of Unani Medicine for Skin Disorders, Hyderabad
Under Central Council for Research in Unani Medicine
Ministry of Ayush, Government of India

SCIENTIST PROFILE



Name: Dr. Monica Choudhary

Designation: Investigator (Statistics)

Department/Division: Statistics Section, NRIUMSD, Hyderabad (CCRUM, Ministry of AYUSH)

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[Google Scholar](#) / [ResearchGate](#) / [LinkedIn](#)

1. Professional Profile / About the Scientist

Dr. Monica Choudhary currently serves as Investigator (Statistics) at the National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad, under the Central Council for Research in Unani Medicine (CCRUM), Ministry of AYUSH, Government of India. She holds both Master's and PhD degree in Statistics from the University of Jammu, with specialization in Sample Survey and Estimation Theory. At present, she is actively handling the statistical aspects of all projects and whole data in this institute and contributing to evidence-based decision-making in Unani healthcare. Her work spans clinical trial design, sample size calculations, Statistical Analysis Plan (SAP) writing, CRF development, and data analysis for Unani research protocols. She is proficient in statistical software including SPSS, R, and Microsoft Excel, as well as LaTeX for manuscript typesetting, to conduct analyses and extract meaningful insights from datasets. She has authored/co-authored ten research papers in peer-reviewed national and international journals on estimation theory and clinical biostatistics, and previously contributed to ICMR-funded systematic review and meta-analysis work at PGIMER, Chandigarh. She also provides statistical support for MD/PG dissertations and manuscript review within the institute.

2. Educational Qualifications

Degree/Qualification	Specialization	University/Institution	Year
Ph.D., Statistics	Sample Survey & Estimation Theory	University of Jammu	2024
Postgraduate (M.Sc., Statistics)	Statistics	University of Jammu	2019
Bachelor of Arts (B.A.)	General	Govt. College for Women, Gandhi Nagar, Jammu	2017

3. Areas of Specialization

- Statistical Data Analysis for Clinical Research Projects
- Biostatistics and Clinical Trial Design (Unani systems)

- Sample Size Calculation, Protocol Design and Statistical Analysis Plan (SAP) Writing
- Data Management and CRF Development

4. Research Interests

- Estimation theory in successive and stratified random sampling.
- Randomized Response Techniques (ORRT models) for sensitive attribute estimation
- Clinical biostatistics for randomized controlled trials of Unani formulations
- Systematic review and meta-analysis methodology

5. Research Projects: NIL

6. Major Scientific Contributions / Achievements

1. Provided statistical support to clinical research projects across the institute.
2. Submitted monthly, half-yearly, and annual progress reports of the institute.
3. Managed data for multi-centric projects and designed CRF Excel sheets for clinical studies.
4. Provided sample size calculation, protocol design, and Statistical Analysis Plan support across multiple clinical trials of Unani formulations at NRIUMSD, Hyderabad.
5. Conducted regular biostatistics classes for PG (MD) scholars (Batch 2025–26) as per NCISM guidelines, including assignment design and evaluation, and guided PG scholars in the statistical analysis of their thesis work.

7. Publications & Scholarly Contributions

Category	Number / Details
Research Publications	9
Book Chapters	1
Books/Monographs	Nil
Patents / Technology / Products	Nil
Conference Presentations	9

Selected Publications (5–10):

1. Dash, N., Jain, L., Malik, M., Pradhan, P., **Choudhary, M.**, Mandula, P. P., Kaur, K., Purohit, A., & Mathew, J. L. (2024). Paradoxical Reaction to Tuberculosis Therapy among HIV-Negative Children: A Systematic Review and Meta-Analysis. *The American journal of tropical medicine and hygiene*, 111(6), 1273–1279. <https://doi.org/10.4269/ajtmh.24-0174>
2. Lovely Jain, Meenakshi Malik, Kulbir Kaur, Sarita Dogra, Abhishek Purohit, Meenakshi Sachdeva, **Monica Chaudhry**, Pranita Pradhan, Joseph L. Mathew (2024). Systematic review of efficacy and safety of shorter regimens for drug-resistant tuberculosis (DR-TB) in children, *Clinical Epidemiology and Global Health*, 27, ISSN 2213-3984, <https://doi.org/10.1016/j.cegh.2024.101604>.
3. **Choudhary, M.**, Kumar, S., Kour, S. P. & Verma, T. (2024). An Improved Class of Ratio and Product Estimators Based on ORRT Models. *Revista Colombiana de Estadística*, 47(1), 1–23. <https://doi.org/10.15446/rce.v47n1.106991>.
4. Sunil Kumar & **Monica Choudhary**, (2023). A General Class of Estimators in Presence of Non-response and Measurement Error Under Two-Phase Successive Sampling. *Thailand Statistician*, 22(1), 40–49.
5. **Monica Choudhary**, Sanam Preet Kour, Sunil Kumar, Carlos N. Bouza, Agustín Santiago, Using ORRT Models for Mean Estimation under Nonresponse and Measurement Errors in Stratified Successive Sampling, *Journal of Probability and Statistics*, 2023, 1340068, 17 pages, 2023. <https://doi.org/10.1155/2023/1340068>.
6. Sunil Kumar & **Choudhary, M.** (2023). An Improved Estimator of Finite Population Variance Using

Two Auxiliary Variable SRS. *Revista Colombiana de Estadística*, 46(1), 81–91.

7. Sunil Kumar, Kour, S.P., **Choudhary, M.** & Sharma, V. (2022). Determination of Population Mean Using Neutrosophic Exponential-Type Estimator. *Lobachevskii Journal of Mathematics*, 43(11), 3359–3367.
8. Sunil Kumar & **Choudhary, M.** (2021). Estimation of Population Product in the Presence of Non-Response and Measurement Error in Successive Sampling. *Mathematical Sciences Letters*, 10(3).
9. Sunil Kumar, Sanam Preet Kour and **Monica Choudhary** (2021): Improved Randomized Response Model for Estimating the Population Proportion, *International Journal of Statistical Sciences*. Vol. 21, No. 2
10. Sunil Kumar, J P Singh Joorel, Menal Trehan and **Monica Choudhary** (2021): Estimation of Population Mean using One Auxiliary Variable in Stratified Random Sampling: A Simulation Study, *Recent Advancements in Sampling Theory & its Applications*, MKSES Publication Lucknow, UP.
<https://doi.org/10.5281/zenodo.5546519> (Book Chapter)

8. Awards, Honours & Recognitions

- 1st Prize, Essay Writing (Hindi) – Hindi Pakhwada, NRIUMSD, Hyderabad – 2025
- 3rd Prize, Elocution (Hindi) – Hindi Pakhwada, NRIUMSD, Hyderabad – 2025

9. Professional Memberships / Fellowships

- Member- Scientific Welfare Association