

Prevalence of Chronic Respiratory Diseases Among Adults in Delhi NCR: A Pilot Study

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ABSTRACT

Introduction: Chronic Respiratory Diseases (CRDs) remain a significant contributor to morbidity and reduced quality of life among adults in urban India, especially in heavily polluted metropolitan regions like the Delhi National Capital Region (NCR). Despite increasing awareness, community-level epidemiological data on CRD prevalence in this area is limited.

Aim: To determine the prevalence and symptom profile of chronic respiratory diseases among adults in Delhi NCR through validated patient-reported measures in a pilot setting.

Materials and Methods: A cross-sectional pilot study was conducted involving 60 adult residents from various localities of Delhi NCR. Participants were screened for diagnosed CRDs and respiratory symptoms. The Chronic Respiratory Questionnaire (CRQ) was administered to evaluate domains of dyspnoea, fatigue, emotional function, and disease mastery, and the Medical Research Council (MRC) dyspnoea scale was used to grade the severity of breathlessness. Demographic details, digital connectivity, and device ownership were also documented. Descriptive statistics were performed to summarise CRQ and MRC scores and to estimate the prevalence and impact of respiratory morbidity.

Results: Among the 60 participants, a notable proportion reported doctor-diagnosed CRDs and moderate to severe respiratory symptoms. CRQ scores reflected variable but often moderate impairments across dyspnoea, fatigue, and emotional function domains, with several individuals reporting significant limitations on mastery. MRC grading among affected subjects indicated a spectrum of exertional breathlessness, with the majority experiencing at least minimal activity limitation. High rates of digital literacy and device ownership were also observed, indicating suitability for potential digital health interventions in this population.

Conclusion: This pilot analysis highlights an appreciable prevalence and burden of chronic respiratory diseases among adults in Delhi NCR, with marked effects on quality of life and daily functioning. The use of CRQ and MRC enables nuanced detection and quantification of symptom burden in epidemiological research. These findings support the feasibility of larger-scale studies and targeted public health interventions in urban Indian settings.

Keywords: Chronic respiratory questionnaire, Medical Research Council dyspnoea scale, Metropolitan regions

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