

Clinical Research Results Abstract

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Chronic respiratory disease (CRD) surveys in low- and middle-income countries (LMICs): A systematic scoping review of methodologies and outcomes

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Aim: Understanding the burden of chronic respiratory disease (CRDs) is crucial for healthcare planning. Our scoping review aimed to identify strategies (definitions; questionnaires; study tools) used to conduct surveys for CRDs in LMICs. The findings will inform a future RESPIRE Four Country Chronic Respiratory Disease (4CCORD) study, which will estimate CRD burden in adults in LMICs.

Method: We followed Arksey and O'Malley's¹ six-step framework. The search strategy included three domains: CRDs, prevalence and LMICs. We searched OVID Medline, EMBASE, ISI WoS, Global Health and WHO Global Index Medicus databases. We limited the search to adults. After a single-reviewer title sift, eight trained reviewers contributed to study selection and data extraction. We charted the findings focusing on strategies for random sampling; disease definitions; questionnaires; assessment of burden and phenotypes.

Results: Of 36,872 citations, 281 articles were included: 132 from Asia (41 were from China). Study designs were cross-sectional surveys (n=260), cohort studies (n=11) and secondary data analysis (n=10). Number of respondents ranged from 50 to 512,891. Asthma was surveyed in 144 studies; COPD in 110; asthma/COPD overlap in two surveys. Most studies (100/144) based identification of asthma on symptom-based questionnaires. In contrast, COPD diagnosis was typically based on spirometry (105/110); 67 used fixed-ratio thresholds; 38 used both fixed-ratio and lower-limit-of-normal values. Most studies used questionnaires derived from standardized surveys (most commonly the European Community Respiratory Health Survey (n=47). Burden/impact of CRD was reported in 33 papers (most commonly activity limitation). Only six (recent) papers used the term 'phenotype'.

Conclusion: Variations in operational study definitions and instruments to estimate the prevalence of CRD in the general population are likely to have impacted on results in the medical literature. The impact of CRD on individuals/society was rarely reported, and mainly on activity limitation, highlighting a major gap in understanding the burden of CRD.

Declaration of Interest:

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References and Clinical Trial Registry Information:

Reference

1. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology* 2005, 8(1):19-32.