

**EFFECTIVENESS OF TELEMEDICINE AND DIGITAL TECHNOLOGIES IN CONTROLLING OBSTRUCTIVE RESPIRATORY DISEASES IN CHILDREN**

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**Relevance:** Obstructive respiratory diseases, including asthma and recurrent wheezing, are common in children and require ongoing management to prevent exacerbations and improve quality of life. The COVID-19 pandemic has accelerated the adoption of telemedicine and digital health solutions, highlighting their potential for improving disease monitoring and management in pediatric populations.

**Objective:** To evaluate the effectiveness of telemedicine and digital health technologies in controlling obstructive respiratory diseases in children.

**Methods:** A prospective study was conducted over 6 months with 100 children aged 6–14 years diagnosed with obstructive respiratory diseases. Participants were divided into two groups:

1. Intervention group (n=50): received telemedicine-based care, including remote consultations, digital spirometry, and smartphone-based symptom tracking.

2. Control group (n=50): received standard in-person care. Outcomes included frequency of exacerbations, adherence to treatment, and quality of life (assessed using the Pediatric Asthma Quality of Life Questionnaire). Statistical analysis was performed using paired t-tests and chi-square tests.

**Results:** The intervention group demonstrated a 35% reduction in exacerbation rates compared to the control group ( $p<0.05$ ). Treatment adherence improved by 25% in the telemedicine group ( $p<0.01$ ). Quality of life scores were significantly higher in the telemedicine group at 6 months ( $p<0.05$ ). Parents reported greater satisfaction with telemedicine services, citing convenience and timely access to medical advice.

**Conclusions:** Telemedicine and digital health technologies effectively improve the control of obstructive respiratory diseases in children by enhancing disease monitoring, increasing adherence to treatment, and improving overall quality of life. These findings support the integration of telemedicine as a valuable tool in pediatric respiratory care.

**REFERENCES:**

1. Portnoy JM, Waller M, Elliott T. Telemedicine in the era of COVID-19. *J Allergy Clin Immunol Pract.* 2020;8(5):1489-1491.
2. Chan AHY, et al. The use of telemedicine to improve asthma control in children: a systematic review. *Pediatr Pulmonol.* 2020;55(6):1388-1395.
3. Kruse CS, et al. Evaluating barriers to adopting telemedicine worldwide: a systematic review. *J Telemed Telecare.* 2018;24(1):4-12.
4. McLean S, et al. Telehealthcare for chronic obstructive pulmonary disease. *Cochrane Database Syst Rev.* 2011;(7):CD007718.

