

Effects of Physical Activity on TB Risk and Treatment Success Among People Living with Tuberculosis in Karu LGA, Nasarawa State

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ABSTRACT

Introduction: Tuberculosis (TB) continues to be a leading cause of morbidity and mortality globally, particularly in developing countries like Nigeria, where socio-economic and healthcare challenges hinder effective disease control. This study was conducted in Karu Local Government Area (LGA), Nasarawa State, to assess the role of physical activity in TB prevention and treatment outcomes. Specifically, the study aimed to examine the relationship between physical activity and TB susceptibility, evaluate its influence on treatment adherence and recovery, and explore the knowledge, attitudes, and practices of TB patients concerning physical activity.

Methodology: A cross-sectional descriptive study design was employed, involving 220 TB patients currently undergoing treatment in Karu LGA. Data were collected using structured questionnaires, which covered socio-demographic profiles, levels of physical activity before and during treatment, knowledge and beliefs about physical activity, and perceived barriers to engagement. Statistical analysis was performed using SPSS version 25, and chi-square tests were employed to investigate the associations between physical activity levels and factors such as gender, comorbidities, prior awareness, and belief systems.

Results: The study found a significant relationship between physical activity and TB outcomes. Patients who engaged in regular moderate physical activity (30–60 minutes, 3–4 times per week) showed better adherence to treatment, improved symptoms (e.g., increased appetite, reduced coughing), and faster recovery. Sedentary behavior was prevalent among females, individuals with comorbidities, and those with low prior knowledge of the benefits of physical activity. Chi-square analysis revealed statistically significant associations between physical activity levels and gender ($p = 0.003$), comorbidities ($p = 0.001$), prior awareness ($p = 0.000$), and belief systems ($p = 0.000$). Additionally, 70% of patients indicated they would be more physically active if guided by health professionals, highlighting the role of healthcare provider support in promoting activity.

Conclusion: Physical activity plays a crucial non-pharmacological role in TB prevention and recovery. While many patients in Karu LGA remain physically inactive due to fatigue, fear, and lack of guidance, the findings suggest that regular, moderate activity enhances treatment adherence and overall health outcomes. Public health interventions should therefore include structured, culturally appropriate physical activity programs, coupled with consistent counseling from healthcare workers.

