Proceedings of the

YOUNG SCIENTISTS' CONFERENCE ON MULTIDISCIPLINARY RESEARCH

VIRTUAL INTERNATIONAL CONFERENCE

YSCMR 2024

Organized by,
The Young Scientists' Association
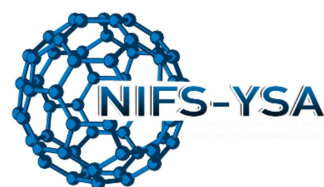National Institute of Fundamental Studies, Sri Lanka.

YSCMR 2024

Proceedings of the
Young Scientists' Conference on Multidisciplinary Research - 2024

Virtual International Conference

27th November 2024

"Collaborative Research for Achieving the UN Sustainable Development Goals (SDGs)"

Paper ID: CMT-142

Selected demographic data as potential diagnostic indicators of TB status in contact tracing: Kandy, Sri Lanka

H.M.N.T. Bandara[1], D. Madegedara[2], I. Rathnayaka[1], H.P.V.T. Hewawasam[1], D.N.Magana-Arachchi[1*]

[1]National Institute of Fundamental Studies, Kandy, Sri Lanka
[2]National Hospital, Kandy, Sri Lanka

[*]dhammika.ma@nifs.ac.lk

Tuberculosis (TB) remains a global health challenge. This study focuses on the demographic characteristics of contact tracing for TB patients in Kandy, Sri Lanka. The ethically approved study aims to differentiate between active TB (ATB) and latent TB (LTB) cases and assess the importance of contact tracing in managing the spread of TB. Current data from December 2022 to June 2024 at the Kandy Hospital Chest Clinic include 136 participants, among whom 20 had ATB, 62 had LTB, and 54 were contacts. Data on age, gender, Mantoux test results, and weight were collected through interviews and clinical assessments. Statistical methods included descriptive statistics, t-tests, ANOVA, chi-square tests, logistic regression, and the Wilcoxon Signed Ranks Test. Gender distribution showed 40.3% male and 59.7% female, with no significant association between gender and TB status. The mean age of participants was 37.3 years (SD = 20.72), ranging from 4-83 years, with significant differences observed across TB status groups. Mantoux test results varied significantly between TB statuses, with mean Mantoux results of 8.2 mm (SD = 1.18) for ATB, 15.3 mm (SD = 6.26) for LTB, and 0.14 mm (SD = 0.09) for contacts. Weight statistics indicated that ATB participants had a mean weight of 52.2 kg (SD = 15.63), while LTB participants had 51.6 kg (SD = 15.63), with no significant difference between the two groups. Logistic regression analysis identified age andMantoux test results as significant predictors of TB status. The odds ratios indicated that older age and higher Mantoux test results were associated with an increased likelihood of developing ATB. Weight was not a significant predictor in the logistic regression model. The findings indicate that age and Mantoux test results are critical factors in TB status determination. These results emphasize the importance of targeted public health interventions and effective contact tracing to manage TB in Kandy.

Keywords: *Contact tracing, demographics, Mycobacterium tuberculosis*