

ASSESSMENT OF SOCIODEMOGRAPHIC PROFILE & NUTRITIONAL STATUS AMONG PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE PATIENTS: AN OBSERVATIONAL STUDY FROM A TERTIARY CARE HOSPITAL

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Background: Malnutrition is common among people with Chronic obstructive pulmonary disease (COPD) and is often associated with poor prognosis. Malnutrition adversely affects pulmonary function, decreases health-related quality of life (HRQL), and increases the risk of exacerbations, length of hospital stays, and healthcare costs. This study aimed to evaluate the sociodemographic profile and nutritional factors of COPD in a tertiary care hospital of Bangladesh. **Methods:** This Cross sectional (observational) study was conducted in Department of Medicine, Shaheed Suhrawardy Medical College Hospital, Dhaka, for a period of 6 months (August, 2022 to January, 2023) after ethical clearance. A total of 100 clinically diagnosed cases of COPD with evidence of imaging and spirometry were included following informed written consent. Information regarding socio-demographic, clinical and nutritional status were collected. A semi-structured questionnaire was used for data collection. Data analysis was done by SPSS version-26. **Results:** The mean age of all patients was 56.33±10.31 years with male predominance (59.0%). Maximum study patients were housewives (36%) and from lower socio-economic status (47%). More than 90% patients had coughing and sputum production. Males had significantly higher level of random blood glucose (123.13±14.72 vs 114.43±13.28 mg/dL, p=0.003), total protein (7.26±0.29 vs 6.28±0.61 g/dL, p<0.001), total cholesterol (169.49±22.68 vs 159.13±26.11 mg/dL, p=0.037), while lower level of total white blood cell count (11305±1303.24 vs 13048.78±2938.55/mm³, p<0.001) and serum albumin (4.19±0.37 vs 4.36±0.40 g/dL, p=0.037) than females. The average body mass index (BMI) for males and females was 20.63±2.99 and 21.01±4.18 kgm-2, respectively (p>0.05). The average triceps skinfold thickness (TST) for males and females was (15.52±1.92 and 15.43±2.36 mm, respectively, p>0.05). The average mid-upper arm circumference (MUAC) and mid-arm muscle circumference (MAMC) for males was 22.95±4.58 cm and 18.05±4.11 cm while for females, it was 23.39±5.40 cm and 18.53±4.73 cm, respectively. Majority patients had normal BMI (58%) while a substantial number of patients were underweighted (30%). Besides, BMI (r= -0.745), TST (r= -0.794) and MUAC (r= -0.694) had significant negative correlation with duration of hospital stay (p<0.0001). **Conclusion:** Poor nutritional status of COPD patients was associated with longer hospital stay. However further study is warranted.

Keywords: Malnutrition, HRQL, exacerbations, sociodemographic profile, hospital stay.

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