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Diabetes prevalence among different ethnic, age and income groups in the Western Province of Sri Lanka: A preliminary study

L P Egodawatta, S C D Fernando and C Udawatte*
Institute of Chemistry Ceylon, 341/22, Kotte Road, Rajagiriya

Diabetes is a group of diseases marked by high levels of blood glucose due to inability to produce or properly utilize insulin. Currently over two million people suffer from diabetes. Data was acquired by distributing a questionnaire among 30 people living in the Western Province; Colombo and suburbs such as Dehiwala Mt. Lavinia, Maharagama–Kottawa, Boralesgama–Piliyandala and Thalawathugoda. The sample population consisted of 10 each from the 3 main ethnic groups, Sinhala- S, Tamil- T, Muslim-M.

Diabetic screen based on ethnicity (total sample population-30): diabetes (17); S: 17.60%, T: 29.40%, M:52.94%. Pre-diabetes (13); S: 53.84%, T: 38.46%, M: 7.69%. Diabetic screen based on age group (total sample population-30): diabetes (17); 20-34 years: 0%, 35-49 years: 17.64%, 50-64 years: 47.05%, >65 years: 35.29%. Pre-diabetes (13); 20-34 years: 23.07%, 35-49 years: 15.38%, 50-64 years: 23.04%, >65 years: 38.46%. (diabetes: fasting plasma glucose (FGP)>125 mg/dl, pre-diabetes: 100 mg/dl≤ FGP<125 mg/dl).

A moderate linear correlation (Pearson's $r = 0.523$) was observed between average monthly income and postprandial (after 2 hours of meal) plasma glucose level. A weak correlation (Pearson's $r = 0.270$) was observed between average monthly income and fasting plasma glucose level. In the Western province of Sri Lanka, a majority (52.94%) of the diabetics was from the "Muslim" ethnic group, while a majority (53.84%) of the pre-diabetics was from the "Sinhala" ethnic group. Those over 65 years of age suffer from pre-diabetes (38.46%) and diabetes (35.29%) equally. A considerable number (23.07%) of the population below 34 years suffers from pre-diabetes. When relating physical activities of the diabetic population with average monthly income (of those who are employed), in all monthly income categories, majority of the population engages in walking as an exercise.

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