

## Assessment of the Awareness and Risk of Pre-diabetes among a Group of Garment Factory Workers in Boralesgamuwa Medical Officer of Health (MOH) Area

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Pre-diabetes is a precursor before the diagnosis of type 2 diabetes mellitus, impacting individuals' health. Certain occupations may increase the risk of pre-diabetes, such as those involved in shift work, prolonged sitting times, or psychological distress. Thus, this study aimed to assess the risk of pre-diabetes among a selected group of garment factory workers in the Boralesgamuwa MOH area, focusing on their awareness of pre-diabetes and associated risk factors. A descriptive cross-sectional study was conducted with 320 participants recruited by convenient sampling method, from 04 garment factories in the Boralesgamuwa MOH area. A pre-tested interviewer-administered questionnaire and the American Diabetes Association (ADA) pre-diabetes risk assessment tool (cross-culturally adapted) were used to obtain data after the ethical approval (RP/S/2023/50) had been obtained. Data were analyzed using SPSS 25.0 (descriptive stat and chi-square). Results indicated predominantly female (67.5%) participants with a mean age of 39±12 years and a BMI of 23.57±3.84 kgm<sup>2</sup> in the sample. Only 4.10% were aware of the fasting blood glucose range defining pre-diabetes. According to the ADA tool, 26.9% were at risk of pre-diabetes, yet diet control was practiced only by 10.9% and only 10% engaged in regular physical exercise. Statistical analysis with chi-square test revealed significant associations between pre-diabetes risk and factors such as age ( $p=0.001$ ), weight ( $p=0.001$ ), education level ( $p=0.006$ ), occupation ( $p=0.011$ ), family history of type 2 diabetes ( $p=0.001$ ), history of hypertension ( $p=0.001$ ), and diet control ( $p=0.01$ ). In conclusion, a critical lack of awareness regarding pre-diabetes among this group was observed. Addressing the knowledge gap through educational programs is crucial while promoting lifestyle modifications including regular physical exercise and weight management to mitigate the risk of pre-diabetes in this vulnerable group.

**Keywords:** *pre-diabetes, awareness, risk factors*