

## PREVALENCE OF RISKS FOR OBSTRUCTIVE SLEEP APNOEA AND ITS ASSOCIATION WITH CARDIOVASCULAR RISK FACTORS AMONG ADULTS ATTENDING GOVERNMENT PRIMARY HEALTH CLINICS IN KUANTAN

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### ABSTRACT

Obstructive sleep apnoea (OSA) is a sleep-related breathing disorder with recurrent episodes of apnoea or hypopnoea occurring during sleep. It is associated with an increased risk of cardiovascular disease (CVD). However, there is no applicable study that assesses the risk for OSA and CVD among adults at the primary care level. This study aims to assess the prevalence of risk for OSA and its associated cardiovascular risk factors among adults attending primary care clinics. This cross-sectional study was conducted among 252 adults attending four Klinik Kesihatan in Kuantan, Pahang. The inclusion criteria were adults age 30 years old and above. The exclusion criteria were a known case of Hypothyroidism, Depression and pregnancy. A self-administered validated Malay version of Berlin Questionnaire (BQ) was used to screen for high risk of OSA. The statistical analyses were done using IBM SPSS version 23.0. Majority of the respondents were male (54%), Malay (87.7%), and married (79.4%). The prevalence of High Risk for OSA was 32.9%. The cardiovascular risk factors that were found significantly associated with High Risk of OSA include higher BMI classification with obese type 1 (AOR=2.604 CI=1.278-5.308), obese type 2 (AOR=3.882 CI=1.078-13.975) and obese type 3 (AOR=6.800 CI=1.164-39.717) compared to normal; hypertension (AOR=2.297 CI=1.122-4.702); and hypercholesterolaemia (AOR=2.040 CI=1.050-3.965). However, advancing age showed a reduced risk for High Risk of OSA (AOR=0.951 CI=0.923-0.980). Male gender, smoking and Diabetes Mellitus was not associated with High Risk of OSA. This study shows that nearly one-third of the adults attending primary health clinic are at High Risk of OSA. Although advancing age showed reduced risk, other cardiovascular risk factors such as higher BMI status, presence of hypertension and hypercholesterolaemia showed an increased risk for High Risk of OSA.

**Keywords:** Obstructive Sleep Apnoea, Belin Questionnaire, Primary Health Clinic