

## The Incidence of Obesity among Adult Women in Pekanbaru City, Indonesia, Related to High Fat Consumption, Stress Level, and Physical Activity

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**Abstract :** Background: Obesity has been recognized as a global health problem. Individuals classified as overweight and obese are increasing at an alarming rate. This condition is associated with psychological and physiological problems. As a person reaches adulthood, somatic growth ceases. At this stage, the human body has developed fully, to a stable state. As the capital of Riau Province in Indonesia, Pekanbaru is dominated by Malay ethnic population habitually consuming cholesterol-rich fatty foods as a daily menu, a trigger to the onset of obesity resulting in high prevalence of degenerative diseases. Research objectives: The aim of this study is elaborating the relationship between high-fat consumption pattern, stress level, physical activity and the incidence of obesity in adult women in Pekanbaru city. Research Methods: Among the combined research methods applied in this study, the first stage is quantitative observational, analytical cross-sectional research design with adult women aged 20-40 living in Pekanbaru city. The sample consists of 200 women with BMI  $\geq 25$ . Sample data is processed with univariate, bivariate (correlation and simple linear regression) and multivariate (multiple linear regression) analysis. The second phase is qualitative descriptive study purposive sampling by in-depth interviews. six participants withdrew from the study. Results: According to the results of the bivariate analysis, there are relationships between the incidence of obesity and the pattern of high fat foods consumption (energy intake ( $p \leq 0.000$ ;  $r = 0.536$ ), protein intake ( $p \leq 0.000$ ;  $r = 0.307$ ), fat intake ( $p \leq 0.000$ ;  $r = 0.416$ ), carbohydrate intake ( $p \leq 0.000$ ;  $r = 0.430$ ), frequency of fatty food consumption ( $p \leq 0.000$ ;  $r = 0.506$ ) and frequency of viscera foods consumption ( $p \leq 0.000$ ;  $r = 0.535$ ). There is a relationship between physical activity and incidence of obesity ( $p \leq 0.000$ ;  $r = -0.631$ ). However, there is no relationship between the level of stress ( $p = 0.741$ ;  $r = 0.019$ ) and the incidence of obesity. Physical activity is a predominant factor in the incidence of obesity in adult women in Pekanbaru city. Conclusion: There are relationships between high-fat food consumption pattern, physical activity and the incidence of obesity in Pekanbaru city whereas physical activity is a predominant factor in the occurrence of obesity, supported by the unchangeable pattern of high-fat foods consumption.

**Keywords :** obesity, adult, high in fat, stress, physical activity, consumption pattern

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