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Influence of Different BMIs on RR Interval Parameters in Healthy Young Individuals: A Cross-sectional Study Protocol

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Introduction: Body Mass Index (BMI) is a widely used indicator of overall health, as it measures weight relative to height. Variations in BMI are associated with conditions such as heart disease, diabetes, and certain cancers. Similarly, Heart Rate Variability (HRV), assessed through RR intervals, serves as a reliable marker for evaluating autonomic nervous system function and predicting potential health risks.

Aim: The primary aim of this study is to examine the impact of different BMI categories on RR interval parameters, which are crucial indicators of HRV, in healthy young individuals. By investigating the relationship between BMI and autonomic nervous system function, the study seeks to shed light on how body weight variations influence cardiovascular health within this population.

Materials and Methods: The study will include healthy individuals with varying BMI levels, who will be recruited based on specific inclusion criteria. Written informed consent will be obtained from all participants. Based on the Asian BMI classification, individuals will be divided into four groups. RR interval measurements, essential for HRV assessment, will be recorded using an electrodiagnostic machine. The recorded parameters will then be analysed using descriptive and correlation statistical methods.

Keywords: Autonomic nervous system, Cardiovascular system, Heart rate variability,