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Nationwide Collaborative Alliance in the Prevention of Obesity: The Need for a Multifaceted Database

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Obesity is a global health concern with its rising prevalence worldwide. The global burden of the disease and its health-related economic burden has given rise to many secondary complications. In Malaysia, the increasing prevalence of obesity to 19.7% in 2019 based on the National Health and Morbidity Survey has been alarming to policymakers. The role and needs of the society should be clearly determined, so that intervention programmes are well-strategized to facilitate a multiprong approach to this nationwide health burden. Although there are national preventive measures put forth by various stakeholders, these measures can be enhanced further by addressing all related factors within a common platform; these factors include epidemiological, psychosocial, biological, and genetic factors. There is an urgent need to develop a comprehensive, multifaceted anti-obesity strategy in Malaysia to meet Sustainable Development Goal 3 (SDG3) of the World Health Organization (WHO). There is also a need to develop a collaborative platform comprising relevant stakeholders, healthcare professionals, non-governmental organisations, researchers, professional bodies, and community representatives who will be aligned in bringing the best of solutions against obesity in Malaysia. An annual analysis of estimates and the burden of obesity concerning all causes, factors, and risks must be evaluated via descriptive and inferential analysis towards estimates and probabilities of vital statistics, which will form the basis of the proposed database. The pathophysiology of obesity is multifaceted which involves intricate choreography of environmental, behavioral, and genetic factors. These genetic factors may influence metabolism or diet intake, thus leading to increased adiposity. The proposed collaborative platform and database will address various domains encompassing diagnosis and prevention of obesity; other contributory factors such as psychosocial, biochemical, and nutritional factors will also be incorporated. Availability of more refined epidemiological data will facilitate personalized care targeted in preventing obesity, be it an ethnic-based, locality, or family-based approach. Through this multifaceted and holistic approach, it is hoped that the overall well-being of the Malaysian individual will be enhanced through preventive strategies of metabolic or inflammatory-based obesities.

Several local studies have reported the role of different genetic elements in the Malay population. Amongst these include: association of Peroxisome Proliferator-Activated Receptor gamma2 (PPAR) (Zahri et al., 2016) with metabolic features of obesity and another more recent study which analysed the role of Nuclear factor-κB (NFKB) (Omar et al., 2020) in inflammatory nature of obesity. The role of Angiotensin-Converting Enzyme (ACE) polymorphism in the Malay population (Emilia et al., 2020) complementing the identification of social factors of obesity (Saif et al., 2019) in a Malay cohort are a few of such vital examples which may be used to support the current proposed database. Personalized diet planning in association with the nutritional needs, metabolic status, and genetic factors (Mustafa et al., 2021) should also be addressed to facilitate a healthy lifestyle for normal, overweight, and obese subjects in our diverse genetic population.

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