

Sex Differences in the Relationship between Personal, Psychological and Biochemical Factors with Blood Pressure in a Healthy Adult Mexican Population: A Cross-Sectional Study

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Hypertension is one of the main risk factors related to cardiovascular mortality, being the levels of blood pressure (BP) related to a variety of personal, anthropometric, biochemical and psychological variables; however, the study evaluating the association of all these factors in systolic blood pressure (SBP) and diastolic blood pressure (DBP) in a sample of relatively healthy subjects has not been performed. The aim of the study was to determine the main variables associated with SBP and DPB in a sample of relatively healthy subjects. A total of 171 participants were included, in which personal, anthropometric, positive and negative psychological variables and biochemical variables were measured. We observed that men showed higher levels of SBP and DBP than women, with more differences for SBP. Among the biochemical factors and SBP, we found that albumin and monocytes were positively correlated with it, while potassium, phosphorus and eosinophils were negatively correlated with it. Additionally, schooling was a constant variable negatively correlated with SBP in all samples (global, men and women). Among psychological variables, we observed that emotional perception was negatively correlated with SBP in men's and women's samples, while autonomy was positively correlated with SBP in the men's sample; however, their association was less when compared with the personal and biochemical variables included in the multivariate model. With regard to DBP, we observed that the biochemical variables, hemoglobin, sodium, uric acid and glucose, were positively correlated with DBP in the global sample, while chloride and BUN were negatively correlated with it. In addition, many personal and behavioral variables, including BMI, age and smoking consumption frequency, also correlated with DBP in the global sample. In conclusion, BP is affected by different factors, and these affect each sex differently.

Biography

Aniel Jessica L. Brambila is a medical doctor with a Ph.D. in human genetics and experience as professor in the Master Degree of Health Psychology of the University of Guadalajara, recently she has been studying the relationship between mental and physical health, two of her research lines are health psychology and psychoneuroendocrinology. She has recent publications addressed to determine the associations between psychological factors with medical ones, including physiological and biochemical parameters, in order to better determine the influence of positive and negative psychological factors in these health parameters that could lead to disease development and/or to a faster evolution of already developed diseases. In addition, she has performed global and se-separated analyses, which help to better understand these mental-physical relationships in each sex.