

Social Determinants of Health and Psychosocial Stressors in the Control of Arterial Hypertension in the Elderly in Countries with Medium and Low Economic Income

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***Corresponding author:** Sebastian Galvis-Acevedo, Department of Family Medicine, Faculty of Health, Universidad del Valle, Colombia

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Sebastian Galvis Acevedo*

Department of Family Medicine, Faculty of Health, Universidad del Valle, Colombia

Editorial

We recently published a secondary analysis of a population survey conducted among the elderly population in Colombia between 2015 and 2016, in which we found that age over 74 years and residence in a rural area were variables associated with poorer control of diabetes, blood pressure in non-institutionalized older adults in Colombia [1], a low- to middle-income country located in South America.

Life expectancy is increasing in the world and demographic data shows that about 11% of the world population is over 60 years old, with a projected increase, by 2050, to 22% of the population [2]. Similarly, the prevalence of chronic non-communicable diseases is increasing worldwide, and cardiovascular disease continues to be the leading cause of death worldwide, with high blood pressure being its main risk factor [3]. Cardiovascular Disease (CVD) is responsible for the main cause of loss of Disability-Adjusted Life Years (DALYS) and this carries great costs for health systems worldwide [4].

In Colombia, the differences in blood pressure control in its older adult population could be explained, in part, by the gap that exists between the countryside and the city and by the age of older adults (those >75 years who are worse controlled). The final report of the Commission on Social Determinants of Health of the World Health Organization in 2008 invites governments and institutions to promote research on the incidence of social determinants in the health of populations [5]. In accordance with this, the medical literature that shows the participation of social determinants of health and psychosocial factors in the control of arterial hypertension is growing.

The prevalence of depression in adults between 55 and 74 years old is 13% (men 5.5% and women 7.5%) [6]. There are studies that have shown that hypertensive patients who are depressed are less well controlled [7,8]. In contrast, other studies show that depressive patients have better control of hypertension, probably attributed to the increased use of health services [9]. The scientific evidence is not yet conclusive regarding the direction of this association, although it seems to be more the association between depression and uncontrolled hypertension. Depression has been associated with increased ACTH, serum cortisol, stress-mediated sympathetic tone, decreased parasympathetic activity [8,10] and, furthermore, has been associated with changes in behavioral factors that affect blood pressure control [11,12].

On the other hand, there are studies that relate social participation with the control of hypertension. According to the theory of social capital in health [13], community participation leads to a greater perception of social cohesion and, in turn, favors greater available social support. The more an older adult participates, the more likely he is to perceive that people in his community can be trusted and that they could help him if needed, which would ultimately be associated with better health outcomes. As with depression, the scientific evidence regarding the association of social support with adequate control of hypertension is still inconclusive. In the study we carried out in Colombia [1], we did not find an association between social support and better blood pressure control, which is consistent with that reported by other authors Bahari G et al. [14] Poblete F et al. [15] Thuy LQ et al. [16]. However, other previous studies have observed that low social support is associated with uncontrolled high blood pressure [17,18] and lower risk of arterial hypertension in older adults who provide social support (volunteers) [18,19].

On the other hand, there are studies in the literature that show that hypertensive patients who experience displacement from their place of origin have differences in blood pressure control when they change their place of origin. Although in our study we did not find this association, in Colombia there is a large volume of internal migrations that are attributed, in large part, to the internal armed conflict that produces forced displacement, psychosocial stress and geographical barriers to access to health services and administrative [20,21].

Income inequality has also been associated with arterial hypertension control and CVD risk. There are differences in the prevalence of hypertension and its control according to the level of socioeconomic income and its different measures that include income level, educational level, employment status and environmental factors [22]. Lower quintiles of household income have been found to be associated with poorer blood pressure control and increased risk of all-cause mortality [23].

Today there are calculators that model and predict global cardiovascular risk at 10 years and include traditional risk factors (smoking, age, sex, serum cholesterol, among others) and some biomarkers such as High-sensitivity C-reactive protein. Nontraditional cardiovascular risk factors such as autoimmune disease (systemic lupus erythematosus, rheumatoid arthritis), HIV infection, psychosocial stressors, and social determinants, among others, could be applied to better inform treatment decisions in patients in whom the risk remains intermediate or uncertain [24]. These determinants of health, including social support, social networks, socioeconomic status, and mental health disorders, affect the risk of cardiovascular disease [25]. Larger numbers of adults older than 85 years need to be included in clinical trials to determine how hard cardiovascular outcomes are shared in this age group [26].

In conclusion, in the older adult population with uncontrolled hypertension, primary care physicians should pay close attention

to exploring the psychosocial and health determinant factors that are directly associated with poorer control of hypertension and increased CV risk or that they do so indirectly by affecting medication adherence [27], changes in lifestyles and geographic and administrative barriers to access to the health system. The differential focus of public policies towards the vulnerable elderly population in remote and rural areas and the reduction of geographic and administrative barriers to access to health services can impact cardiovascular morbidity and mortality associated with poor blood pressure control and improve health inequities that are a result, in part, of social inequalities in low-and middle-income countries.

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