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Research Article

Family Functionality and Adherence to Treatment in Patients with Arterial Hypertension in the UMF 44

Rosales-Solis DG[1*]; Rivas-Gonzalez MA[1]; Diaz-Alfaro JA[2]

[1]Department of Family Medicine, Family Medicine Unit 44 (IMSS), Durango, Mexico

[2]Department of Family Medicine, Family Medicine Unit 2 (IMSS), Colima, Mexico

***Corresponding author:** **Rosales Solis David Guillermo**
Family Medicine Unit 44 (IMSS), Durango, Mexico.

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Abstract

Background: Systemic Arterial Hypertension (SAH) and its high prevalence among IMSS beneficiaries is one of the main risk factors for severe cardiovascular events, directly affecting quality of life. Controlling the condition at the first level is a strategy that should encourage hypertensive patients to adhere to treatment. Equally important is the patient's environment, mainly the family system, which provides support and security, or else, conflicts and difficulties that affect the evolution of the disease.

Aim: To determine the association between family functionality and the degree of adherence to treatment in patients with arterial hypertension in the Family Medicine Unit 44 of Durango.

Design: Analytic cross-sectional study.

Methods: An observational, descriptive, cross-sectional, prospective, descriptive study was carried out in which instruments with sociodemographic variables, as well as the Morisky-Green test and the Family Adaptability and Cohesion Evaluation Scales (FACES III) were applied to hypertensive patients attending the outpatient clinic of the UMF # 44 with prior informed consent. The study universe was 1250 patients, of which the sample size was 575. The statistical analysis was performed using the measures of central tendency, dispersion and percentages. The analysis of the variables was performed with chi-Square.

Results: The distribution by biological sex was almost equal, with a slight female predominance. The majority of participants were employed and living in a common law union or married, with a most common educational level being secondary school. In terms of health, 40.70% maintained blood pressure within normal ranges and the treatment showed average adherence in more than half of the patients. Statistical tests revealed significant correlations between treatment adherence and education and blood pressure levels, but not with demographic variables such as age or sex. Family functionality showed a notable influence on adherence to treatment for high blood pressure.

Conclusion: Similarities were found in the results obtained with the literature consulted, where we sought to determine the association between family functionality with the degree of adherence to treatment in patients with systemic arterial hypertension. According to the results, the determination of family functionality is very useful, because it is the basis and pillar of better adherence to applied pharmacology, leading us to find timely and effective prevention strategies to reduce future complications.

Keywords: Systemic arterial hypertension; Therapeutic adherence; Apgar; Faces III; Family functionality

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Introduction

High blood pressure is the most common chronic-degenerative disease; it affects the economically active population group; it is considered that, worldwide, one in three adults is hypertensive. Worldwide, cardiovascular diseases are responsible for approximately 17 million deaths per year, almost a third of the total; Among them, complications derived from hypertension, which in turn are widely related to adherence to treatment and changes in lifestyle. Millions of deaths occur annually from cardiovascular diseases, which is considered a premature and avoidable death according to the WHO [1-2].

Regarding national statistics, one in four Mexicans suffers from high blood pressure, in men the prevalence is 24.9% and in women 26.1%. Prevalence estimated at 30% according to the criterion of 140/90 mm Hg, which is equivalent to around 30 million corresponding to the diagnosis of hypertension; if the most current criteria are applied, this rate can even double. Therefore, added to the different causes of hypertension complications, the family system is added, since it has a crucial role in the complicated health-disease model. When the functionality of the family is affected, there is an impact on the health status of the patients and the control of their disease [3-4].

The psychodynamic conditions suffered by the patient due to the alteration of their family functionality have an impact on the capacity for self-care, mood and non-conformity in their family environment, which will subsequently affect adherence to the treatment, marking a tendency to move away from the parameters. of control, which is why it is of vital importance for a condition of marked chronicity, to identify if there is family dysfunction [5-6].

Table 1: Association between family APGAR and variables.

Family APGAR	*P value*
Age	0.10
Marital status	0.30
Evolution of high blood pressure	0.007
Arterial pressure	0.004
Education	0.001
Cohabitation	0.20
Sex	0.30

Table 2: Association between therapeutic adherence and variables.

Therapeutic *Adherence*	P value
Age	0.30
Marital status	0.40
Evolution of high blood pressure	0.09
Arterial pressure	0.001
Education	0.001
Cohabitation	0.10
Sex	0.10
Treatment	0.80

Table 3: Distribution between family APGAR and therapeutic adherence.

	Type of adherence			
Family APGAR	**High**	**Medium**	**Low**	**Total**
Dysfunctional	25	92	61	178
%	14.04%	51.69%	34.27%	100.00%
Moderately dysfunctional	53	131	58	242
%	21.90%	54.13%	23.97%	100.00%
Functional	48	79	28	155
%	30.97%	50.97%	18.06%	100.00%

Adherence to treatment is a vital issue for the first contact doctor and the family doctor, since the recognition of factors related to non-adherence is decisive in compliance with treatments. The failure of antihypertensive therapies is a common problem in our country and is mainly related to the lack of adherence to the treatment. This is why we consider it a priority to develop a strategy that determines which factors in the family environment are related to the lack of adhesion. [7-8]. The main objective of this study was to determine the association between family functionality and the degree of adherence to treatment in patients with arterial hypertension in the Family Medicine Unit 44 of Durango.

Material and Methods

Study Design and Population

An analytical cross-sectional study was conducted in Durango, Mexico, between April 2022 and February 2024. The research was carried out at FMU 44, of the Instituto Mexicano del Seguro Social (IMSS); primary care unit and main health care center in the region. The inclusion criteria were the following: patients aged 20 to 60 years with high blood pressure and agree to participate in the study after signing an informed consent. The exclusion criteria were patient unable to respond to the applied instruments and patients with secondary hypertension. Incomplete surveys were eliminated.

Variables

Information was collected in a data collection form in the SPSS version 25 program, the following variables were collected: therapeutic adherence was the degree to which the patient complied with therapeutic indications, with the Morisky-Green test. Family functionality was the set of phenomena that occurred in the family nucleus, in which adaptation, participation, affection and resources were adequate to resolve adversities. High blood pressure was identified in subjects who, through clinical examination and with the support of diagnostic assistants by the health professional (Family Doctor), maintained a blood pressure level greater than or equal to 140/90 mmHg. Age was determined as the length of time a person or other living being had lived, counting from birth. Sex was the set of individuals whose genital apparatus is of the same order: male or female. Occupation was the work activity. Education was the highest degree of study approved at any of the levels of the National Educational System.

Statistical Analysis

The data were analyzed using descriptive statistics with measures of central tendency and dispersion for quantitative variables; frequencies and percentages for qualitative. In the inferential analysis we used the chi-square test. A $p<0.05$ was considered statistically significant.

Ethics

The study was approved by the Local Committee for Ethics and Health Research number 902; with registration number R-2023-902-055. The research was carried out under the General Health Law on Health Research, the Declaration of Helsinki and the Bioethical Principles.

Results

The distribution by biological sex revealed that 47.1% (271 patients) were male and 52.9% female. Regarding marital sta-

tus, 42.3% (243 patients) lived in a common law union, followed by 41.9% (241 patients) married, 12.2% (70 patients) separated, 0.5% (3 patients) single, and 3.1% widowed. From a labor perspective, 76.2% of the participants were employed, with operator occupations predominating (56.5%). Regarding education, the most common level was secondary school with 36.5%, followed by high school (29%), primary school (15.7%), bachelor's degree (15.5%) and graduate school (3.3%). The majority (83%) lived with their partner, while 6% lived with children and 10% lived alone.

The indicators of the age variable showed a mode of 58 years, a mean of 50 years and a median of 53 years, with a range of 23 to 69 years. Regarding blood pressure, 40.70% of the patients managed their blood pressure levels within normal ranges (120/80-139/89 mmHg), while 41.22% had slightly elevated levels (140/90-159/90 mmHg). and 18.09% registered significantly high figures (≥160/100 mmHg). Regarding medication, 29.39% of patients used thiazide diuretics, 22.61% calcium channel blockers, and different preferences were observed for other drug classes. The years of evolution of the diagnosis of Systemic Arterial Hypertension (SAH) showed a mean of 12 years, a mode of 8 years and a median of 7 years, with a standard deviation of 19.01.

The level of adherence to treatment, measured using the MMAS-8 scale, indicated that 21.91% of the subjects had high adherence, 52.52% had medium adherence, and 25.57% had low adherence. The evaluation of family functioning using the family APGAR scale revealed that 30.96% of the patients had highly dysfunctional family function, 42.09% had moderate dysfunction, and 26.96% had normal family functioning. The FACES III scale showed that in adaptability, 26.96% were rigid, 30.61% flexible, 31.83% chaotic and 10.61% structured. Regarding family cohesion, 30.09% were found to be unrelated, 30.09% semi-related, 26.26% related and 13.57% agglutinated. The statistical analysis using the non-parametric Pearson Chi-Square test for the APGAR and MMAS-8 scale with demographic and clinical variables showed statistically significant correlations with education and blood pressure levels, but not with age, marital status, who lives and biological sex.

Finally, when correlating family function with therapeutic adherence, it was found that of the patients with highly dysfunctional family function, 14.04% had high adherence, 34.27% had low adherence, and 51.69% had medium adherence. Among patients with moderate family dysfunction, 51.90% had high adherence. Patients with normal family function showed 30.97% with high adherence, 18.06% with low and 26.96% with average. These results suggest a relationship between family dynamics and treatment adherence in patients with arterial hypertension.

Discussion and Conclusion

The discussion of the results obtained in this study reflects a convergence with the existing literature on the influence of family functionality on adherence to the treatment of systemic arterial hypertension. Our findings underscore the importance of family structure and dynamics as crucial foundations for better compliance with the drug regimen, which is essential for developing effective preventive strategies that mitigate future complications. Previous research, such as that carried out by Becerra et al., [9] who analyzed a sample of 336 patients, and that by Rangel-Esqueda et al., [10] with 319 patients, also highlight the relevance of family functionality. Becerra et al. observed an association between higher systemic blood pressure and family dysfunction, with longer duration of SAH in those with severely dysfunctional families. For their part, Rangel-Esqueda et al. They did not find a statistically significant relationship between family dysfunction and lack of adherence to treatment, which suggests the complexity of this dynamic.

Additionally, Salgado-Rodríguez et al., [11] in their study identified a prevalence of controlled hypertension in 73% of cases, and a relationship between family functioning and adherence to antihypertensive treatment, which supports the correlation between a stable family environment and effective management of the HAS. Our study coincides in several aspects with the aforementioned research, especially that the majority of patients were women and that the predominant age was between 50 and 69 years. In relation to blood pressure control, we observed blood pressure figures similar to those reported in other investigations, which reinforces the consistency of our measurement and monitoring methods.

The level of adherence to treatment, measured through the MMAS-8 scale, revealed that the majority of patients showed a medium level of adherence, which indicates an area of opportunity to improve intervention strategies. This result is consistent with the patterns of family functionality found through the APGAR scale, which showed a significant proportion of families with moderate dysfunction. The statistically significant correlation found between schooling and blood pressure levels with the APGAR scale suggests that education and effective management of arterial hypertension are important factors in family functionality. In contrast, no significant relationship was found between family functionality and other demographic variables such as age, marital status and biological sex.

The implications of these results emphasize the need to update and reinforce knowledge about the impact of family functionality on therapeutic adherence. This understanding is crucial for the development of support programs in primary care units, highlighting the importance of family adaptability and their ability to manage health challenges, in order to prevent long-term complications in patients with arterial hypertension.

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