Archives of Family Medicine and General Practice

SCHOLARLY PAGES

Research Article   **Open Access**

The Patient Companion in the Consultation of Family Medical Practice is an Indicator of Hidden Family Problems

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Abstract

Objective: Analyze the hypothesis that exposure to family problems results in the presence of a patient companion in the medical consultation.

Material and method: This is a retrospective study of cases and controls. "Case" was defined as a patient with a companion, and "control" as a patient without an accompanying adult. Problems in the family context (based on the genogram) were considered the previous exposure factor. For each case, the patient with the next appointment in the practice who did not come with a companion was chosen as a control. For each patient, the following variables among others were collected: age, sex, chronic diseases, medications, and social class. The bivariate comparisons were performed using the Chi square test, the Student t test, and the Mann-Whitney test. Finally, an analysis using logistical regression was performed.

Results: 106 cases and 106 controls were obtained. The cases had more problems in the family context (45.1% vs. 30%; p = 0.03). Significant differences were found in favor of the cases in the following variables: older ($\geq$ 65 years: 38.7% vs. 19.8%), a higher average number of chronic diseases (2.39 vs. 1.92); more drugs prescribed (2.96 vs. 1.97), and lower social class. When the logistical regression analysis was conducted on the variables that showed statistical significance in the bivariate analysis, using as the dependent variable the problems in the family context of the patient, significant differences were found only in the total number of chronic diseases (p = 0.019; OR = 1.384; risk factor), and age (p = 0.024; OR = 0.977; protection factor).

Conclusion: The presence of a patient companion in the consulting room is an indicator of problems in the family context, and should be used as a signal to investigate psychosocial family data.

Keywords

Companion, Caregivers, Family practice, Physician-patient relations, Case-control studies, Retrospective studies, Genogram

Introduction

Family medicine is the medical specialty that provides continuing, comprehensive health care for the individual and family within the context of the community. Providing family-oriented primary care is one of the distinguishing features of this specialty [1-3].

Another important feature of family medicine in individual care is to take into account the presence of companions with the patient [4-11]. However, it is not clear that working with patient companions is included among the attributes of family medicine [12].

Conventionally, physician training focuses on an encounter between two people: the patient and the physician. In practice, a third person (companion) frequently accompanies a patient during medical consultations [13]. A second adult - usually parents or the husband or wife accompanying the patient in the consultation - is always significant and deserves the attention of the doctor. Although many consultations occur with only the patient, others involve patient companions in the consulting room [14].

Routine visits in which one or more family members are present in the consulting room with the patient are frequent. Overall,

it is accepted that in about 30% of consultations there is a patient companion, usually family members, especially for elderly patients and children, and the companion can assume important roles in improving the understanding of the patient and doctor [15-18].

However, although clinicians will not be surprised to hear that patients often attend outpatient medical visits with a companion, for example a family member, and it is a common phenomenon in family medicine and other medical areas, even with hospitalized adult patients [19-21], it seems to have not been, in general, a topic of study. Previous research on communication in medical consultations has primarily focused on dyadic interactions between the physician and patient. Consequently, the presence of a patient companion in the medical consulting room and the implications for medical practice has been sparsely studied [22,23].

The exact meaning of consultation with a patient companion is unknown. In addition, patients who are accompanied by a family member are likely to be different from unaccompanied patients, in relation to their health problems, functional abilities, family, relationships, and attitudes toward family involvement in their care.

In this context, the aim of the study was to analyze the hypothesis that exposure to family problems later results in the presence of a companion in the office, and this presence should serve as a signal to investigate further psychosocial and family data of the patient.

Materials and Methods

A retrospective study of cases and controls was realized. "Case" was defined as a patient with a companion, and "control" as a patient without an accompanying adult. Companion was defined as any person who accompanied the patient in the consulting room. The problems in the family context (based on the genogram, and evaluated by the family doctor who performed the genogram at the past time, and who has remained in the same practice for over 25 years, by viewing the family scheme) [24-27] were considered the previous exposure factor. The genogram (schematic model of the structure and processes of a family), included the family structure, life cycle of where that family currently is, important life events, family resources, and family relational patterns.

For each case, the patient with the next appointment in the practice who did not come with a companion was chosen as a control. The location was a family medical practice in the Santa Maria de Benquerencia Health Center, Toledo, Spain, which has a list of 2,000 patients.

From a randomly chosen day, for 15 consecutive days, from November 26, 2015 to December 18, 2015, the visiting patients were included, and data from the case and control were collected. Patients of both sexes over 14 years old were included (family doctors attend patients over 14 years old in Spain).

Table 1: Comparisons between cases and controls.

Studied Variables	Cases (N = 106)	Controls (N = 106)	Statistical Significance
Age in years of patients	54.15 ± 22.52 < 40 years: 29.2% 40-64 years: 32.1% ≥ 65 years: 38.7%	49.25 ± 17.56 < 40 years: 34% 40-64 years: 46.2% ≥ 65 years: 19.8%	t = 1.761 (p = 0.08) Mean Difference 4.89 (95% CI -0.58 to 10.38) $X2 = 9.53$ (p = 0.009)
Sex of patients	Males: 40.6% Females: 59.4%	Males: 48.1% Females: 51.9%	N.S.
Chronic diseases in patients	2.39 ± 1.50	1.92 ± 1.50	P = 0.023
Endocrine, nutritional and metabolic diseases*	31.1% (0.40 ± 0.67)	10.4% (0.14 ± 0.44)	P < 0.001
Diseases of the eye*	8.5% (0.08 ± 0.28)	0.9% (0.01 ± 0.09)	P = 0.019
Medications taken by the patient	2.96 ± 3.03	1.97 ± 2.29	P = 0.016
Blood and blood forming organs*	15.1% (0.19 ± 0.58)	5.7% (0.07 ± 0.28)	P = 0.041 / p = 0.033
Nervous system*	40.6% (0.71 ± 1.09)	27.4% (0.44 ± 0.85)	P = 0.059 / p = 0.041
Potential problems familiar context of the patient based on the genogram	(n = 102) 45.1% (IC95% 35.22-55.26)	(n = 100) 30% (IC95% 21.24-39.98)	P = 0.03
Social-occupancy class of patients			
Higher managerial	2%	9.2%	
Intermediate occupations Intermediate occupations	0	9.2%	
Specialized white-collar-workers	4.9%	2%	
Specialized-workers manuals	6.9%	18.4%	
Semiskilled workers	16.7%	21.4%	
Unskilled workers	56.9%	31.6%	P < 0.001
Students	12.7%	8.2%	
Complaint of patient according to ICD-10	IX: 18.9% X: 14.2% XIII: 14.2%	IX: 9.4% X: 18.9% XIII: 17.9%	N.S.
Analytical test was requested for the patient	3.8% (IC95% 1.03-9.38)	4.7% (IC95% 1.54-10.66)	N.S.
Imaging test was requested for the patient	0.9% (IC95% 0.02-5.14)	0%	N.S.
The patient need a consultation with the specialist	17.9% (IC95% 11.15-26.56)	12.3% (IC95% 6.69-20.05)	P = 0.064

*In Chronic diseases in Patients and Medications taken by the patient only statistically significant comparisons are shown.

Turabian et al. Arch Fam Med Gen Pract 2016, 1(1):1-6

ISSN: 2578-6539 | • Page 2 •

The sample size for a retrospective case-control study was calculated using a two-sized confidence level (1-alpha) = 95; power (chance of detecting) = 80; ratio of controls to cases = 1 [28]. No estimate of the effect size was conducted specifically. The sample size calculation was performed with the assumption of an expected proportion of exposure in cases of 65%, and controls 40%.

For each case and control the following variables were collected: potential problems in the family context of the patient based on the genogram, age, sex, chronic disease [29] and chief complaint (classified according to ICD-10) [30], taking medication, the therapeutic drug group (classified according to the ATC code or Anatomic Classification, Therapeutic, Chemical system) [31], sick leave of the patient, social-occupancy class (according to the Registrar General's classification of occupations and social status code) [32,33], if an analytical or imaging test was requested for the patient, and if the patient was referred for a consultation with a specialist. Being a retrospective study, the data were collected from the medical records. The informed consent of all the patients or their careers was obtained for the use of group information for the purposes of research.

A Microsoft Excel' file was built as a database, and IBM SPSS Statistics for Windows, Version 18.0. Armonk, NY: IBM Corp [34] was used. Descriptive data, which were expressed by standard measures of central tendency and dispersion, were obtained. The bivariate comparisons were performed using the Chi Square test for percentages, the Student t test for the mean, and the Mann-Whitney test for comparison of means in variables with non-parametric distribution. Finally, an analysis using logistical regression was performed with the "Enter" method, including the variables that showed statistical significance in the bivariate analysis.

Results

106 cases and 106 controls were obtained.

Bivariate analysis

The cases had more problems in the family context (45.1% vs. 30%; p = 0.03) (Table 1, Figure 1, Figure 2 and Figure 3).

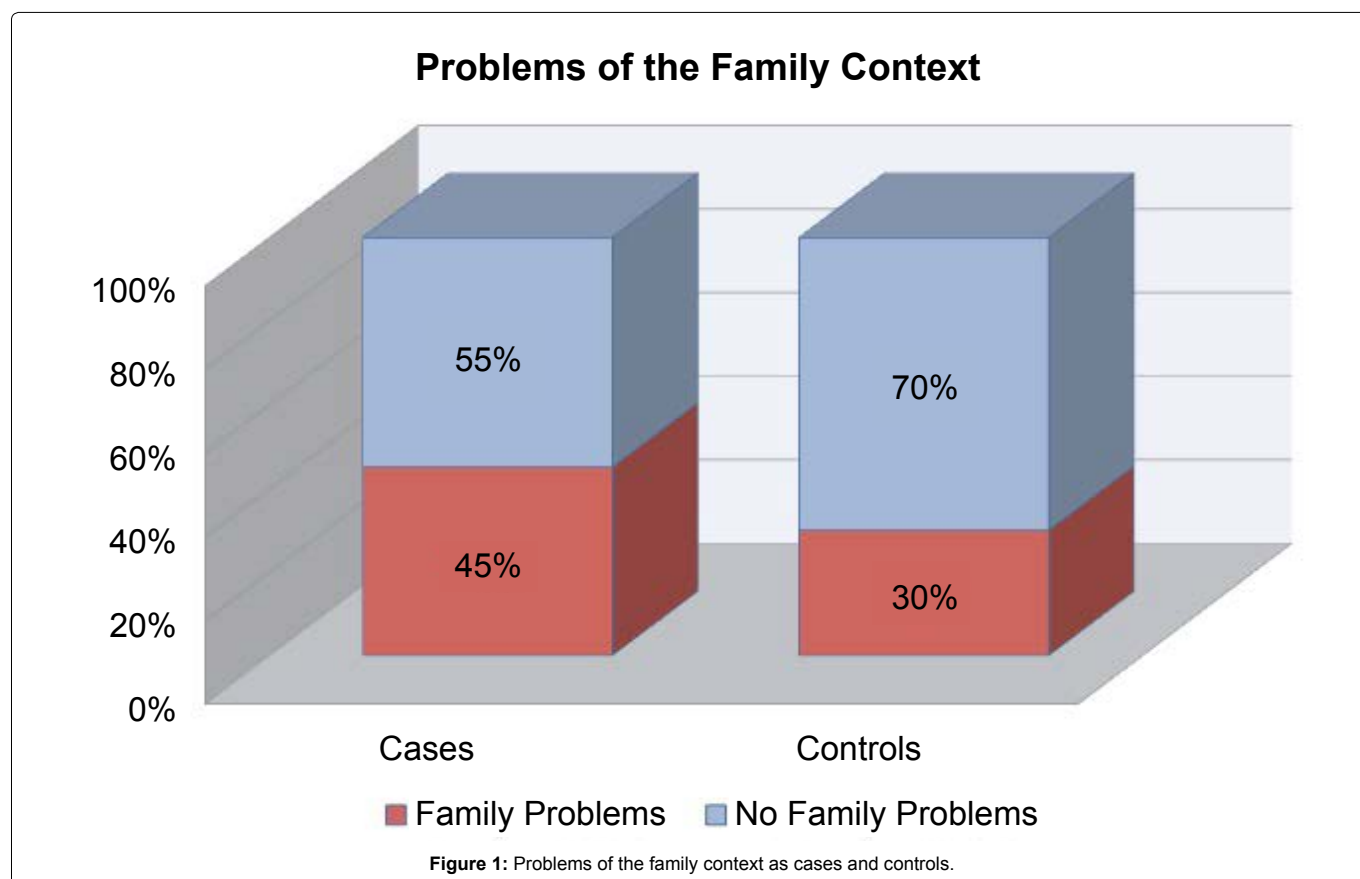### Significant differences were found in favor of the cases in the following variables

Older (≥ 65 years: 38.7% vs. 19.8%; p = 0.009), higher mean number of chronic diseases (2.39 vs. 1.92; p = 0.023), being significant by groups of diseases in endocrine, nutritional and metabolic diseases, and diseases of the eye and its annexes; more medications taken (2.96 vs. 1.97; p = 0.016), being significant for groups in blood and blood-forming organs and nervous system; and lower social class (p < 0.001).

Logistical regression analysis

In the logistical regression analysis with the variables that showed statistical significance in the bivariate analysis, and using as the dependent variable the problems in the family context of the patient, significant differences were found in the total number of chronic diseases (p = 0.019; OR = 1.384; risk factor; that is, the odds of potential problems in the family context increases 1.384 times for each increase in the number of chronic diseases of the subjects studied), and age (p = 0.024; OR = 0.977; protection factor i.e. for each year of increasing age, the odds of potential problems in the family context decreases 0.977 times).

Possible confounders were identified within which obtained statistically significant differences in the bivariate analysis and were included in the logistic regression model. Variables that are not significant in this analysis are probably confounding variables. They were the total number of consumed drugs and social/occupation class.

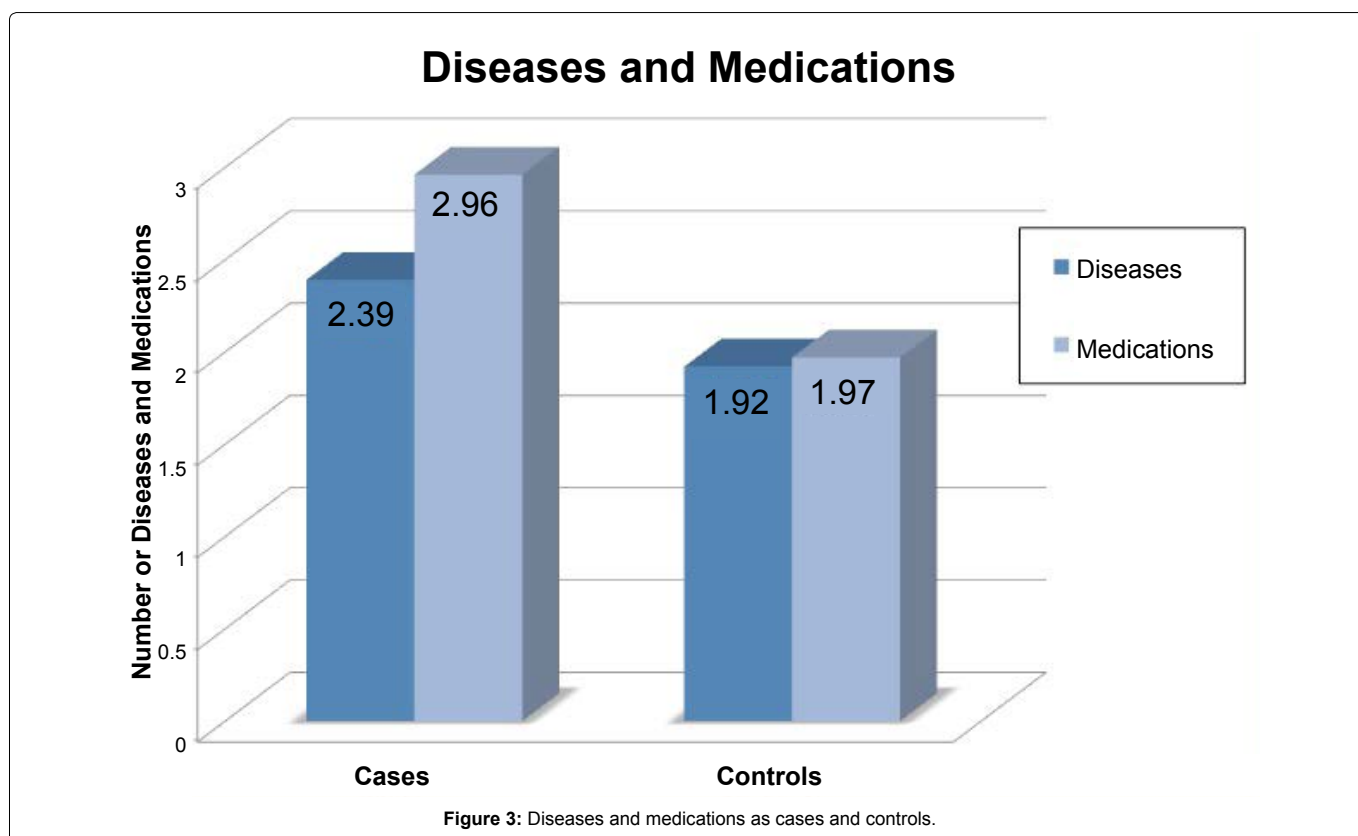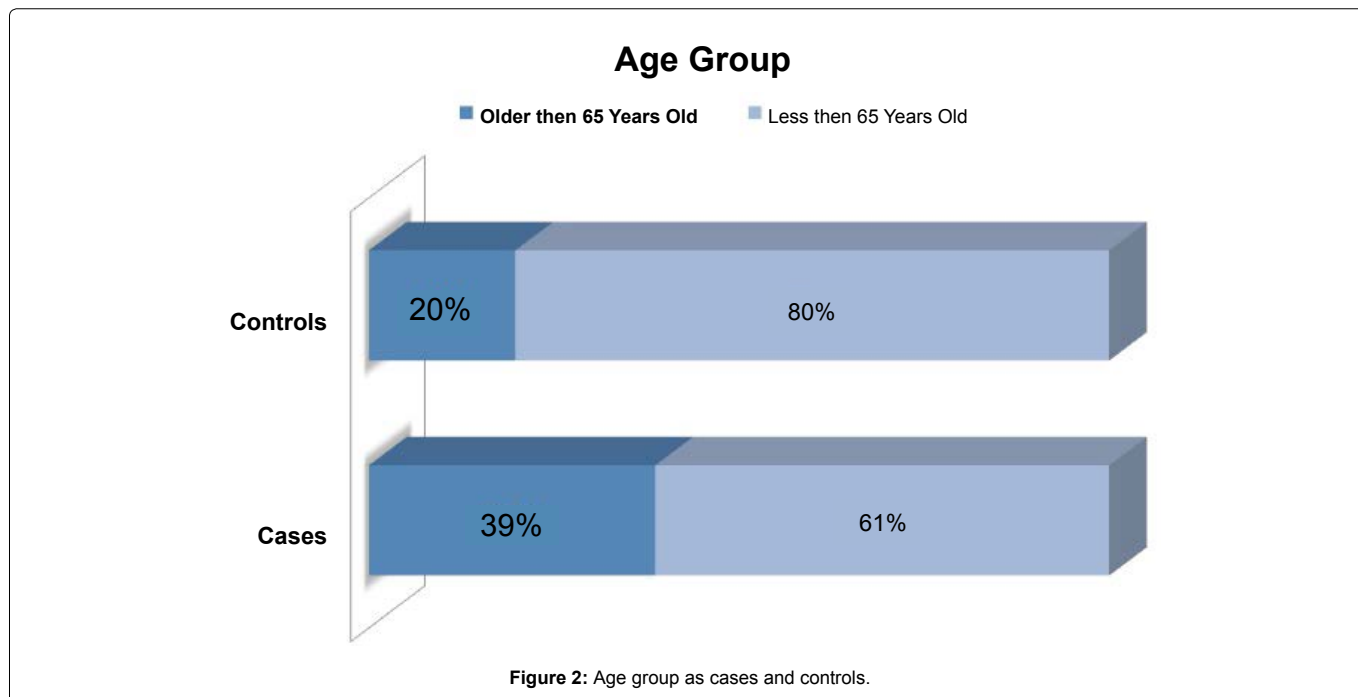The table 2 shows the values of the final model of the logistic

Problems of the Family Context

Figure 1: Problems of the family context as cases and controls.

Figure 2: Age group as cases and controls.

Figure 3: Diseases and medications as cases and controls.

Table 2: Variables model final of equation regression logistics.

Step 1a	B	E.T.	Wald	gl	Sig.	Exp(B)
EDADPAC	-0.023	0.010	5.112	1	0.024	0.977
NUMTOTENFCRONPAC	0.325	0.139	5.488	1	0.019	1.384
NUMTOTMEDICPAC	0.025	0.073	0.120	1	0.729	1.026
SINESPECPAC	0.540	0.333	2.622	1	0.105	1.716
Constant	-0.336	0.417	0.650	1	0.420	0.714

Step 1: EDADPAC (age quantitative value), NUMTOTENFCRONPAC (total number of chronic diseases), NUMTOTMEDICPAC (total number of drugs consumed), SINESPECPAC (social class - unskilled occupation).

a: Variables entered

regression. The value of R2 Nagelkerke in the logistic regression model is made of 0.071 (the value of -2 log-likelihood is 255.796 and the value of Cox and Snell R2 is 0.052). The value of the Wald statistic of each independent variable included in the model can be seen in the table 2, where the values of the regression coefficients and standard errors are also shown.

Discussion

In practice, family members normally accompany the patient to the consultation, and provide valuable information about the psychological and socio-cultural dimensions of the patient, and personal relationships that contribute to the functional autonomy of the patient, but also they may be associated with conflicts between families and doctors. However, overall, this area of third-party involvement in medical care for adults has not been well studied and the exactly meaning of consultation with a patient companion and his or her contribution to medical intervention and patient involvement are unknown.

The presence of the patient companion in the consultation can be understood as a metaphor in relation to the patient. Metaphors (which include analogies, similes, and models) are cognitive tools by which something unknown is understood in terms of something known. Metaphors (models) are central in family medicine [35]. The patient companion is perhaps his or her "guardian angel", or he or she can be understood as a "listening device" [36].

We found that the presence of a companion is an indicator of potential problems in the context of the patient, and it suggests investigating further psychosocial patient and family data. Previously reported differences in accompanied versus unaccompanied visits may reflect patients' preferences for being accompanied, the role they wish their companion to play, and the patients' health status [37]. However, our study is the first that is centered on family problems as a cause of the presence of a patient companion.

We found that patients with a companion were older, with more chronic diseases and taking more drugs, and belonging to a lower social class. These results coincide with those of other studies [38,39].

It is recognized that the presence of a companion can provide a prognostic value: it gives information on the severity of the disease: if the companion is concerned, the doctor should be concerned; if the companion pays little attention to the interview, usually the medical problem is mild [40]. From our study, other prognostic value can be considered: the exposure to family problems is associated with the presence of a patient companion in the consulting room. On the other hand, as in other studies, we found that the number of tests and referrals was not influenced by the presence of a companion [5].

In our study, in the logistical regression analysis, the problems in the family context of the patient were associated with the total number of chronic diseases (p = 0.019; OR = 1.384; risk factor). It is necessary to consider the potentially deleterious impact of chronic diseases (for example, cancer) not just on survivors' spouses, but also on other social network members [41]. The majority of care for older adults with multiple chronic conditions is provided by caregivers within the family (including friends). Although caregivers have reported positive benefits to care giving, they also experience decreases in their physical and mental health [42,43].

However, it is not possible to say if the only factor related to family problems is the chronic disease of the patient. In our study, we did not collect other potentially important factors such as family relationships, social and economic factors, etc. Clearly, more research is needed in this area. However, other authors show concordant results with ours. For example, caregiver burden is a stronger predictor of caregiver depressive symptoms over time than the reverse [44]. The caregiver role can be stressful; because caregivers are at increased risk for depression and anxiety, screening should be carried out to exclude the presence of any disorder [45,46] (Figure 4).

A limitation of our study is that it did not take into account in the controls, the possible confusion of whether the fact that the patient comes unaccompanied was due to not having anyone that could accompany him or her (patient who lives alone, without family or relationships with friends or neighbors). But we think that this situation, if any, must be very rare, and it does not influence the
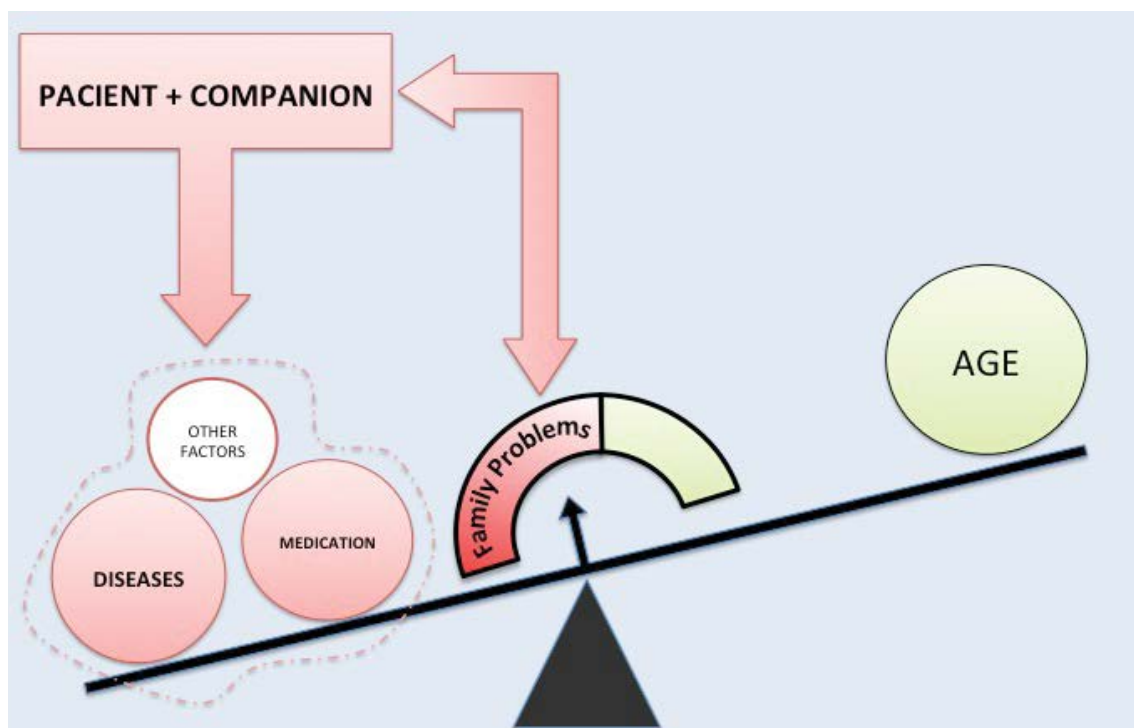
Figure 4: Patient disease can promote family problems.

| • Page 5 •

results.

In summary and conclusion, despite the absence of data relating to the international situation in this field, we found that exposure to family problems is associated with the presence of a patient companion in the consulting room. Chronic diseases are a risk factor, and higher age is a protection factor. Thus, the presence of a companion, especially with a younger patient with chronic diseases, is a sign of family problems. The family doctor should look at the patient companion. The companion seems to play a secondary role, but he or she can be the main actor.

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Turabian et al. Arch Fam Med Gen Pract 2016, 1(1):1-6

ISSN: 2578-6539 | • Page 6 •