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CHER

Does your spouse keeps the doctor away? An international comparison.

by Geert Schuermans

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The doctor, a shoulder to cry on? An cross-national comparison for eight EU-countries

(Draft Version) Geert Schuermans

Abstract

There are many reasons why people visit their general practitioner and the frequency with which they do so. Reasons include subjective health considerations, treatment and investigation, and reassurance. However researchers have revealed that the process of seeking medical aid is a multidimensional phenomenon. Whereas their influence is minor to the role played by elements like symptoms severity, social and demographic variables interact with the frequency with which people consult their doctor. A crucial role in this process is played by the patient's family status. Making use of the longitudinal character of the CHER panel we can distinguish points of transition, like those with respect to marital status, in the life of respondents. This paper analyses whether these transitions have an impact on the number of annual consultations. Furthermore, the cross-national character of CHER support the comparison of different European countries which represent different welfare regimes. That is why we will also look if the different trends can be found in the nations available in CHER and how our results compare to those of previous research.

1. Seeking medical help.

In his famous work "The Social System" Talcott Parsons argued that one of the main functions of a doctor is to give his patients the right to take up the sick role. This sick role allows the patient to decline from normal role responsibilities as for example going to work. Of course this is relative to the nature and severity of the illness. It is up to the physician, with his socially acknowledged medical competence, to decide whether and how long a patient gets the legitimisation to stay sidelined. In this sense, Parson's view of the medical profession is one of social control (Parsons, 1951: 428-480).

Other sociologists as Eliot Freidson (1970) have refined Parson's theory. This shows how the social importance of the physician is a subject that interests a lot of social scientists. Many are fascinated to see how being sick is not just a given fact and visiting a doctor is not a linear consequence of being sick. Symptoms occur frequently, almost daily, but only rarely do consultations result. Studies of health diaries indicate that only 1 in 40 symptoms is brought to medical attention (Cornford, 1998: 1751).

Researchers have revealed that the process people go through before seeking medical help, is a multidimensional phenomenon. Several elements influence people's decision to take the step to consult a general practitioner. These elements can operate at the level of the individual himself, but the people in his lay environment play an important role too.

At the individual level, several factors play a role. First of all there are the biological characteristics: age and sex associated with the frequency of consultation. Young people with children and elderly visit their doctor more often just as women compared to men (Cassee, 1973: 48-50).

Furthermore, consulting behaviour is linked to psychological elements. Ingham claims a patient goes through four stages in making the decision to see a doctor. First some degree of distress from pain, discomfort or unpleasant emotion is experienced. If it is severe enough and lasts long enough, the person may decide that there is something wrong, that the distress is not merely part of normal ups and downs of living, but indicates something potentially more serious. If he thinks about it, he may form the opinion that the symptoms are caused by

physical or psychological factors. This decision influences him in deciding that a medical consultation is appropriate. The likelihood of visiting a doctor, Ingham claims, is related to the fact that the patient attributes his symptoms to an internal physical cause, for example physical illness, or if he denies being able to think of anything that might be causing them (Ingham, 1986: 55-56).

It is well documented that before going to the doctor people try to interpret the symptoms themselves. They try to form their own diagnosis and construct different explanations for the illness (Punamäki, 1995: 43). When the patient does not feel certain about his own diagnosis, he visits a doctor. Except for treatment and investigation people also expect more information and reassurance from their doctor (Valori, 1996: 92).

The interpretation of symptoms however does not occur at the individual level alone. The lay environment of the person such as family members and friends plays a decisive role too (Punamäki, 1995: 42). Social networks are an important predictor of consulting behaviour. Those patients with well-developed social networks consult their doctor less frequently (Robinson, 1986: 597-598).

The importance of the family can hardly be underestimated. There has been done a lot of research on the relationship between the marital status and health conditions. Certainly among women, the marital status is an important element in the frequency one tend to visit the physician. Widowed women are more likely to consult than other groups and compared with married women, separated and divorced women visit their general practitioner more often (Ingham, 1984: 55).

It appears that the beneficial effects of marriage are due, at least in part, to greater financial and material resources, greater social support and better health-related behaviour for married women (Waldron, 1998: 1387). Comparisons between never married women on one hand and divorced or separated women on the other, show no significant differences between the two groups. One could have expected that due to the distress of marital disruption the latter group would have suffered bad health effects (Waldron, 1998: 1392).

An aspect closely related to the lay environment is loneliness. Although loneliness is increasingly recognised as a problem affecting the well-being of (elderly) people, it has rarely

been addressed as a predictor of frequency of consultation. Ellaway reports that loneliness independently predicts the number of consultations after controlling for a range of socioeconomic and health variables known to be associated with the frequency of visiting a physician (Ellaway, 1999: 365). Certainly women with social problems tend to consult their general practitioners more often when they could not count on the availability of friends (Pini, 1995: 39). Some suggest that general practitioners are fulfilling a role for those who need someone to talk to and are seen as the appropriate confidante for problems that before where only confided to the clergy (Spence, 1992: 669-673).

The main aim of this paper is to examine these findings in a cross-nationally comparative setting, making use of the CHER data. In a later stage, this newly created dataset may serve as an instrument to operationalize concepts like social support networks to be used for further analysis along the lines developed above. For the time being, however, the main focus, rather than looking for new insights, has to lie on testing the validity of the variables in the panel dataset. Therefore the underlying analyses will check whether CHER data show a similar influence of biological characteristics, as sex and age, on the number of times people visit their doctor. Besides those individual characteristics, this paper will focus on the effect exerted by the person's environment. Marital status and changes in this status as well as social contacts like the frequency of seeing one's friends, will play an important role in the analyses. Furthermore, the cross-national character of CHER data allows for a comparison of different European countries in the institutional setting of the respective welfare regime. That is why it will also be of interest to find out if different trends over time can be found for the different country data sets available in CHER.

2. Data and Methods

The analyses will be done on the CHER database. CHER stands for Consortium of Household panels for European socio-economic Research. The consortium created a comparative micro database containing harmonised, consistent variables and identical data structures for each available country. This to facilitated comparative cross-national and longitudinal research in Europe. The CHER database includes 14 Western European countries, Poland, Hungary and the US.

Eight countries from the CHER database were picked for this analysis: Belgium, Denmark, Greece, Italy, United Kingdom, The Netherlands, Spain and Portugal. The selection was made for the simple reason that the central variable, number of visits to a doctor, is not available for the remaining countries. For these countries the waves for the years 1995 to 1998 were examined. This four-year-period gave the most information for as many countries as possible.

The results of the analyses will be shown per country. This to make it easy to give an international comparison. By doing this, the possibility that contradictory trends within different countries neutralise each other, is avoided. In general only the findings of the examinations carried out on the data of 1995 will be shown. If trends are found - in the data of the other three years - that do not match with the ones of 1995 those differences will be noted. This choice was made to keep the presentation of the results neat.

The dependent variable in this paper is the number of visits to a physician. This is a continuous variable. The central independent variable is the marital status. It consists of the classical five categories, formally married, divorced, never married, separated and widowed. The original item asking for the number of times one sees his friends contained five possible answers: daily, once a week, monthly, less then once a month and never. In this paper the first three answers were put together as "regularly" whereas the category "seldom or never" was formed by the last two original answers. The originally continuous variable that indicates the number of people living in the respondent's household was dichotomised into "living alone" and "living together with other persons".

The analyses reported below focus on the extend to which visiting a doctor is affected by biological elements as age and gender as well as by factors as marital status and the number of times one sees his friends. These are aspects attributed to the lay environment of the person. The results are presented in two sections. The first provides cross-sectional results whereas the second will show longitudinal findings. The cross-sectional analysis is conducted using analyses of variance (ANOVA) and *t*-tests to examine statistical significant differences among groups. As said before, continuous variables as year of birth have been converted to categorical measures. This to capture possible non-linear associations.

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The longitudinal aspect of the CHER panel data makes it possible to single out and examine the effects of transitions in people's family life as marriage and divorce. The effects of such key-moments are particularly interesting for this matter. This longitudinal part is conducted using *t*-tests to identify statistically significant time and group variations in the number of consults. Pairwise comparisons are used to asses changes in time, while differences among groups, for example people who get divorced compared to those who become widowed, are tested with between-group comparisons.

3. Ways that lead us to the doctor

As it is necessary to be cautious in making causal inferences from cross-sectional studies, the decision was made to take advantage of the possibility that the longitudinal aspect of CHER offers. In a first part, the possible associations between consultation and several other variables will be examined. The marital status and the aspect of loneliness will get special attention. By doing this, it will be possible to compare the results coming out of the CHER data with the outcome of previous research. In the second part of this chapter, moments of change in people's family life, will be singled out. Could it be that for some, the doctor is a shoulder to cry on in moments of crisis?

3.1. Factors associated with consulting behaviour

It is always difficult to study phenomena as inequality in health and medical consumption among different countries. Overall similarities can conceal quite wide differences whereas apparently large overall distinctions sometimes hide basic parallels. To interpret differences the specific configuration of history, ideology, policies and legislation in each country should be taken into account (Fox, 1989: 10-11).

	1995	1996	1997	1998
Belgium	6.78	6.70	6.77	7.20
Denmark	3.63	3.78	3.89	4.11
The Netherlands	4.50	4,40	4.42	4.62
Greece	3.51	3.56	4.01	3.70
UK	2.67	2.72	2.75	2.74
Portugal	4.16	4.52	4.52	4.72
Spain	5.17	4.98	6.10	5.64
Italy	4.89	5.44	5.90	5.90
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Table 1: The average number of consults per country for the period 1995-1998

Table 1 shows that there are considerable differences in the average number of consults per country. Especially the high numbers for Belgium catches the eye. The reason for these remarkably high figures can be twofold. First it is well known that Belgium has a culture of high medical consumption [xxx where does this "culture" come from? obviously, it is extremely important to know about such cross-country variation which may be driven by institutional issues]. From that viewpoint, the results in CHER are very credible. However, these results for Belgium may be upward-biased, given that the (current) data not only counts the number of visits to the general practitioner but also includes consults to doctors that can not be considered as part of the primary care. [\rightarrow xxx please define "primary care"]

Looking more closely at the consulting behaviour in the different countries it becomes immediately clear that in the CHER data, a relation can be found between the two biological variables taken into account: age and gender, and the average number of annual visits to a doctor (table 2). In all selected countries women tend to consult more than men. These differences are statistically significant, but it is clear that consulting behaviour may also be influenced by other factors. The R-square values, which measure the strength of association between the two variables and the average number of doctor visits, are quite low.

	Gender			Age				
	Men	Women	R²	16-25	26-45	46-65	65+	R ²
Belgium	5.88	7.99	0.008	4.41	5.30	7.75	12,00	0.054
Denmark	2.90	4.45	0.018	4.01	3.11	3.83	4.93	0.014
The Netherlands	3.67	4.58	0.014	3.31	4.05	4.95	6.85	0.021
Greece	3.10	4.20	0.007	0.87	2.00	4.33	7.65	0.138
UK	2.17	3.53	0.039	2.74	2.58	3.08	3.72	0.016
Portugal	3.24	4.88	0.019	1.90	3.09	4.93	4.46	0.074
Spain	4.42	6.53	0.011	2.92	3.70	7.38	9.29	0.064
Italy	3.99	5.77	0.013	2.59	3.41	6.03	9.91	0.099

Table 2: The average number of consults, by gender and age, per country for 1995 P < 0.0001

Also the age factor seems to be associated with the number of consults. As expected the general tendency is that people go to the doctor more frequently as they get older. The Greek and to a lesser extend the Italian case catch the eye due to their relatively high R-square score. Overall, the expected relation between both biological factors and consulting behaviour can be confirmed by CHER data.

When looking at a third demographic factor, it becomes clear that there are strong variations in the number of visits to a physician according to the martial status. Widowed respondents reported to have gone fairly more to the doctor than the others. After checking for age groups this difference becomes smaller but still remains significant. The same goes for singles or never married people. Their tendency to consult behaviour goes towards that of the divorced and married respondents, but their lower consulting frequency does not fully disappears.

Another interesting aspect to this matter is the difference between divorced and formally married respondents. As described above former research showed that divorced women tend to visit their physician more than their married counterparts. This is due to the to greater financial and material resources, greater social support and better health-related behaviour of married women. Analyses on the CHER data confirms this. It is only when we look at the

female respondents (table3) that this difference between married and divorced respondents become visible.

	Marital status					
	Divorced	Married	Single	Separated	Widowed	R ²
Belgium	9.78	7.63	5.56	7.83	13.01	0.035
Denmark	/	/	/	/	/	NS
The	6.47	5.49	4.30	/	7.65	0,012
Netherlands						
Greece	4.52	4.14	1.68	3.27	7.73	0,071
UK	3.92	3.44	3.42	3.90	3.97	0,003*
Portugal	4.74	5.27	2.80	5.02	6.65	0.034
Spain	5.85	6.97	3.88	8.44	9.64	0,030
Italy	6.25	6.04	3.58	7.23	10.07	0,047

Table 3: The average number of consults for women, by marital status, per country for 1995 P < 0.0001, * P < 0.001, NS= not significant

Nevertheless the difference is not as outspoken and linear as could be expected. Only in Belgium, The Netherlands, Greece and the United Kingdom we clearly see a higher number of consults by divorced women. Remarkable is the situation on the Iberian peninsula. Portugal is the only country where married persons frequent their physician more than their divorced colleges. This is the case for men and women. When looking at the women alone this differences become even bigger.

When the results are split up by gender, it becomes clear that in Spain the relation between marital status and consulting behaviour is different for men than for women. Unlike in other countries, divorced men frequent their physician more often (6.46) than married men do (5.09). With the women it is the other way around, which also contradicts the trends in other nations. As in Portugal, the average number of consultations for divorced women lies lower than the mean score of married women.

Another item concerning the lay environment of the respondent that has an impact on consulting behaviour, is loneliness. CHER makes it possible to investigate variation in the number of visits according to the fact that the respondent has contact with his friends on a regular bases. Next to that the association between living alone and the number of times one visits a physician is checked here (table 4).

	Living alone			Seeing friends		
	Yes	No	R ²	Yes	No	R ²
Belgium	10.10	6.48	0.011	6.93	11.05	0.001*
Denmark	4.28	3.56	0.003	3.68	13.50	0.005
The	/	/	NS	/	/	NS
Netherlands						
Greece	5.78	3.51	0.008	3.67	6.87	0.001 *
UK	3.45	2.78	0.005		vna	
Portugal	4.62	4.01	0.001	/	/	NS
Spain	7.40	5.41	0.002	5.50	12.33	0.002
Italy	6.09	4.72	0.003	4.58	9.46	0.023

Table 4: The average number of consults, by whether or not seeing friends and living alone, per country for 1995 P < 0.0001, * P < 0.01, NS= not significant, vna= variable not available

[xxx revise table by using full (pooled) information for 1995 to 1998]

The results of both associations seem to indicate that there is indeed a relation between loneliness and the number of consults. People that live alone have a higher number of annual visits to the doctor. The same goes for those who see their friends never or only seldomly. Still these results should be handled with care. Although the figures in table 4 are significant, the R-squares for the association are extremely low. Furthermore, some research claims that people living alone are more likely to report feeling lonely, but not all studies find that those who live alone report significantly greater frequency of consultation with their general practitioner (Ellaway, 1999: 365). A variable measuring the subjective feeling of loneliness was not included in CHER.

3.2. Transitions in married life

The cross-sectional results showed higher level of consults amongst divorced and widowed women. The longitudinal aspect of the CHER data makes it possible to single out and examine the effects of transitions in people's family life as marriage and divorce. The effects of such key-moments are particularly interesting for this matter. They will also give a better look at the causal relationship between marital status and the number of times one visits a physician. This section examines whether this is affected by changes in ones married life.

	T 1	Т2	<i>t</i> -test		
Married became widowed	6.36	7.86	$P < 0.0001 \ / \ t = 4.37$		
Single got married	2.82	3.75	$P < 0.0001 \ / \ t = 7.12$		
Widowed got married	7.96	5.27	P = 0.0006 / t = 3.47		
Table 5: Marital status and average number of consults for respondents whose status changed from T 1 to T 2					

Table 5 shows the average annual number of visits to the general practitioner for respondents whose marital status changed. T1 is the year before the change and T2 the one after. The results are not shown per country since the trends found were the same in each of the nations looked at.

Considering the fact that the cross-sectional part of this paper showed a strong association between divorce and a high number of visits, it could be expected to find a substantial increase in doctors consults for those who got divorced between T1 and T2. The t-tests however showed the changes to be not significant even when the respondents where split up by gender. The same goes for the differences in consulting behaviour of those who made the transformation from being married to being separated. That is why both those figures were not taken up in table5.

The most remarkable conclusion to make out of table 5, is the rise in consults, people have when marrying for the first time. This finding, already indicated in the cross-sectional analyses, contradicts the idea that having a spouse, at al times goes together with less frequent consulting behaviour.

The results concerning widowhood however do suggest that thesis. People losing their spouse have a strong increase in doctor visits, whereas formerly widowed respondents who remarry tend to see their general practitioner much less after their wedding. This hints at the idea that a physician for some is an appropriate confidante.

	T 1	T 2	
Married throughout	4.69	5.28	
Married became widowed	6.36	7.86	
	t = 6.47 P < 0.001 (df > 1000)	t = 9.61 P < 0.0001	
Single throughout	2.63	3.06	
Single got married	2.82	3.75	
	ns	t = 4.92 P < 0.0001	
Widowed throughout	7.63	8.55	
Widowed got married	7.96	5.27	
	ns	t = 6.22 P < 0.0001	

Table 6: Pre-disposing differences in consulting behaviour for respondents with similar marital status origins (T1) but different destinations (T2).

Although these results are based on an analysis of changes over times, it is still possible that prior circumstances or predisposing factors may account for the differences observed. To test whether this is the case, people with similar origins but different destinations can be compared across time. Table 6 presents such a comparison. It shows the consulting behaviour of three sorts of people (married respondents who lost their spouse, singles who got married and widowed persons who got married) that made a transition between T1 and T2. The average number of annual consults are presented for those who in T1 are in the same position, but do not experience changes in their married life. If there only seem to be consulting differences between this two groups (those who made the change and those who didn't) at T2 this is likely to be a function of the intervening changes in marital status.

Table 6 shows that the differences in average number of visits to the doctor actually is a function of changes in the marital status. For two of the three sets of comparison there are no significant differences in consults at T1, but significant differences at T2. So widowed people who remarry intentionally are no different from those who remain widowed, but report significantly less consults after their new marriage. This confirms that transitions in married life, rather than prior health differences, are responsible for the variations in consulting behaviour. Certainly, this needs further multivariate investigation.

4. A shoulder to cry on?

The process people go through before seeking medical help is a multidimensional process. Symptoms occur frequently, almost daily, but only rarely do consultations result. In this paper the association between several social factors and consulting behaviour was examined. Beside biological variables as age and sex the influence of the patient's lay environment was looked at. The importance of marital status in consulting behaviour got a central role in these analyses

The main aim was not only to gain new insights in this relationship, but also to examine whether formerly gained results could be found in the CHER database. Since CHER has an international character, it was checked whether or not the trends could be found in the eight countries examined. Due to the longitudinal character of CHER the relation between married life and consulting behaviour was not only regarded from a cross-sectional point of view. It was possible to single out and examine the effects of transitions in people's family life such as marriage and divorce. The analyses were carried out using ANOVAS's for the cross-sectional part and *t*-tests for the longitudinal section.

The results of the cross-sectional part showed that, as former studies, CHER data proved the relationship between the biological factors, gender and age, and consulting behaviour. Elderly visit their doctor more than young people do, like women consult more often than men. These associations were found for all countries involved. These international parallels were remarkable. Also in the longitudinal part, the trends found showed similarity between the different national data.

Only the cross-sectional relation between marital status and consulting behaviour in the countries of the Iberian Peninsula made an exception on that conclusion. Whereas the results for other countries confirmed previous research by showing only a higher frequency in consults for divorced women compared to their married counterparts, this was not the case for Spain and Portugal. In both countries divorced women visited their general practitioner less often than married women do. In Spain however the divorced men frequented their physician significantly more than their married colleges did. This too was not found in previous research nor in the results of other countries.

Another aspect related to the lay environment of the patient is loneliness. Some report that it can be addressed as a predictor of frequency of consultation. In our cross-sectional analyses we found some evidence for that. People living alone and patients that see their friends seldom or never tended to consult more often. Although significant, the strength of the associations found, was very low.

The results of the longitudinal part however moderately fed the thesis that a physician for some is an appropriate confidante. Looking at the transitions in their married life, people lived through, it was shown that widowed people that got remarried had a drop in the number of times they visit their general practitioner, whereas married people who lost their spouse had an increase in their number of consults. It was shown that these transitions in married life, rather than prior health differences, were responsible for the variations in consulting behaviour.

However, considering the fact that the cross-sectional part of this paper showed a strong association between divorce and a higher number of visits, it could be expected to find a substantial increase in doctors consults for those who got divorced. *T*-test showed the changes to be not significant though, even when the respondents where split up by gender.

Another aspect pointing the other way was the rise in consults, people had when marrying for the first time. This finding, already indicated in the cross-sectional analyses, contradicted the idea that having a spouse, at all times goes together with less frequent consulting behaviour. It seems that not everybody uses the doctor as a shoulder to cry on in lonesome moments of crisis.

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