ARTIGOS ORIGINAIS

Crying patients in General/Family Practice: incidence, reasons for encounter and health problems

Pacientes que lloran en Medicina General/de Familia: incidencia, razones de consulta y problemas de salud

Pacientes que choram em Medicina Geral/de Família: incidência, razões de consulta e problemas de saúde

Juan Gérvas^{1*}, Raimundo Pastor-Sánchez², Mercedes Pérez-Fernández³

Keywords: Crying Primary Care General Practice Family Medicine Doctor-patient Relationship

Abstract

Context: Despite evidence demonstrating the benefits of understanding patients, there is a paucity of information about how physicians address psychological and social concerns of patients. No one study has been published about the incidence of crying in General/Family Practice. **Objective:** To know the incidence of crying in primary care/general practice, and the patients' characteristics, their reasons for encounter and their health problems. **Design:** A descriptive, prospective study, of one year, of three general practitioners/family physicians in Madrid, Spain. **Setting:** primary care (doctors' office and patients' home). **Subjects:** Face to face encounters with crying patients. **Main outcome measure:** At least one rolling tear. **Results:** Patients cried in 157 encounters out of a total of 18,627 giving an incidence rate of 8.4 per thousand. More frequent reasons for encounters were: feeling depressed (12.7%), social handicap (mainly social isolation/ living alone) (6.4%), relationship problem with partner (5.1%) and feeling anxious (3.2%). More frequent health problems were: depressive disorder (23.6%), anxiety disorder (8.3%), cerebrovascular disease (5.1%) and loss/death of partner (3.8%). **Conclusions:** Crying in primary care is not uncommon. Reasons for crying cover the whole range of human problems, mainly social and psychological problems.

Palabras clave:

Llorar Atención Primaria Medicina General Medicina de Familia Relación Médico-paciente

Resumen

Contexto: A pesar de los estudios que demuestran los beneficios de comprender al paciente, hay escasa información sobre cómo los médicos responden a los problemas psicológicos y sociales. No hemos encontrado ningún trabajo publicado sobre la incidencia de pacientes que lloran. **Objetivo:** Conocer la incidencia del llanto en Medicina General/de Familia y las características de los pacientes, las razones de sus consultas y sus problemas de salud. **Diseño:** Estudio descriptivo, prospectivo, de un año de duración, realizado por tres especialistas de Medicina General/de Familia, en Madrid, España. **Lugar:** Atención Primaria (consultas médicas realizadas en consultorios y consultas domiciliarias). **Pacientes:** Encuentros "cara a cara" con pacientes que lloran. **Parámetro principal:** Al menos una lágrima derramada. **Resultado:** Lloraron pacientes fueron: sentimiento depresivo (12,7%), limitaciones sociales (fundamentalmente, aislamiento/vivir solo) (6,4%), problemas de pareja (5,1%) y sentimiento de ansiedad (3,2%). Los problemas de salud más frecuentes fueron: depresión (23,6%), ansiedad (8,3%), enfermedad cerebrovascular (5,1%) y pérdida/muerte de la pareja (3,8%). **Conclusiones:** Llorar no es raro en la atención primaria. Las razones para llorar cubren el amplio campo de los problemas humanos, principalmente problemas sociales y psicológicos.

¹ General practitioner. Equipo CESCA. General practitioner. Spanish National Health System. jgervasc@meditex.es

² General practitioner. Equipo CESCA. General practitioner. Spanish National Health System. rpastors@meditex.es

³ General practitioner. Equipo CESCA. General practitioner. Spanish National Health System. mpf1945@gmail.com

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^{*}Autor correspondente.

Palavras-chave: Chorar Atenção Básica Medicina Geral Medicina de Família Relação Médico-paciente

Resumo

Contexto: Apesar de estudos que demonstram os benefícios de se compreender o paciente, há escassa informação sobre como os médicos respondem aos problemas psicológicos e sociais. Não encontramos nenhum trabalho publicado sobre a incidência de pacientes que choram. **Objetivo:** Conhecer a incidência do choro em Medicina Geral/de Família e as características dos pacientes, suas razões de consulta e seus problemas de saúde. **Desenho:** Estudo descritivo, prospectivo, com um ano de duração, por três clínicos gerais/médicos de família em Madri, Espanha. **Local**: Atenção Primária (consultórios médicos e casas dos pacientes). **Pacientes:** Encontros face a face com pacientes que choram. **Parâmetro principal:** Pelo menos uma lágrima derramada. **Resultados:** Pacientes choraram em 157 encontros de um total de 18.627, uma incidência de 8,4 por mil. Os motivos mais frequentes de consulta foram: sentir-se deprimido (12,7%), limitações sociais (principalmente, o isolamento/estar sozinho) (6,4%), problemas de relacionamento (5,1%) e sensação de ansiedade (3,2%). Os problemas de saúde mais comuns: depressão (23,6%), ansiedade (8,3%), doença cerebrovascular (5,1%) e perda/morte de um parceiro (3,8%). **Conclusões:** Chorar não é incomum na Atenção Primária. As razões para chorar cobrem um amplo espectro de problemas humanos, principalmente problemas sociais e psicológicos.

practitioners are public employees, paid by salary, have a

patient list (of around 2,000 patients), and are gatekeepers to secondary care^{14,15}. It has previously demonstrated that

there are differences in between patient lists about medical

and social morbidity burden according to the Madrid town district where people live¹⁶. RPS and MPF work in a deprived

district and JG in a wealthy one. MPF is a female GP;

RPS and JG are males. Years as principal in the recording

post was 2 (MPF), 6 (RPS) and 15 (JG). During one year

(1995, from 1st January to 31st December) we recorded all

direct encounters (face to face) in which a patient cries. The

definition of crying is not about the noise but about the

emotion and its physiological main consequence, to tear (at

least one rolling tear). The following items of information

are obtained about the encounter and the patient who cries:

age, sex, prior patient status (new/known -for how long, in

Introduction

General practitioners see patients as persons in the context of their ongoing life stories. All facet of life - physical, psychological, sexual, emotional, social, labour - influence the problems patients bring to their general practitioners¹. Primary health care problems encompass all known human problems. Sometimes we try to avoid strong feelings – angers, fear, sadness, loss, being stuck in an unresolvable dilemma, grief - fearing that if we acknowledge them patients will pour out their hearts to us, overwhelming us and using up too much time. In interpersonal relationships, as patientphysician one, we become participant observers and some doctors are reluctant to enter into the feeling world of patients, because is too threatening. Physicians report distress and lack of therapeutic tools to deal with an angry patient, a tearful patient, a frightened patient, or one who seems unable to make a pressing decision. But those strong feelings will keep coming up in the interview if we do not do something therapeutic about them. The result will be a patient who feels isolated and misunderstood and much more time lost. It is not easy to cope with difficult situations but general practitioners have frequents troublesome patient encounters. A route out of this difficulty is a specific interaction skill called an empathic action². Understanding patients' feelings involves the qualities of pity, sympathy and empathy³.

People cry in hospitals and psychiatric offices⁴⁻¹¹ and primary care settings^{12,13} but we do not know the frequency of encounters with tearful patients and the reasons why people cry in General/Family Practice. The aim of this study was to know the incidence of crying in general practice and the patients' characteristics, their reasons for encounter and their medical problems.

Subjects and methods

The study took place in three different health centres, where the authors work, in Madrid, Spain. Spanish general

ems unable to g feelings will do something a patient who nore time lost. ns but general int encounters. tteraction skill tients' feelings empathy³. offices⁴⁻¹¹ and the frequency e reasons why n of this study al practice and encounter and **Results** Patients cried in 157 encounters out of a total of 18,627 direct encounters (face to face), giving an incidence rate of 8.4 per thousand. Table 1 presents the distribution by doctors. Most patients were known (a median of four years) and their

median age was 56 years old. Table 2 summarises the most relevant features of the encounters. Male percentage was 9% in general, but 16% for the female GP (MPF).

 Table 1. GPs' characteristics, and of their encounters with weeping patients.

patients.			
GP	JG	MPF	RPS
Sex	Male	Female	Male
Years in the recording position	15	2	6
Working days	195	220	225
Total number of encounters	5472	6204	6951
Home visit	383	352	280
Encounters per week	140	141	154
Encounters with weeping patients	74	60	23
Incidence rate, per thousand	13.5	9.7	3.3
Incidence rate, per working week	1.9	1.4	0.5
Three more frequents	P03	Z28	Z12
Three more frequents	P01	P03	Z14
reasons for encounter ^a	Z22	Z12	Z28
	P76	K91	P76
Three more frequents	P74	P74	Z14
health problems ^a	Z15	P76	Z15

^aInternational Classification of Primary Care - 2 codes⁹: K91 Cerebrovascular disease; P01 Feeling anxious/nervous/tense; P03 Feeling depressed; P74 Anxiety disorder/ anxiety state; P76 Depressive disorder; Z12 Relationship problem, partners; Z14 Partner illness problem; Z15 Loss or death of partner; Z22 Illness problem, parent/ family; Z28 Social handicap.

Reasons for encounter and health problems of weeping patients belong mainly to chapters Z, Social Problems, and P, Psychological, especially when in relationship with the crying behaviour (Table 3). More frequent reasons for encounters were: feeling depressed (12.7%), social handicap (mainly social isolation/living alone) (6.4%), relationship problem with partners (5.1%), feeling anxious (3.2%), illness problem of parents/family (2.6%), and partner illness problem (1.9%). More frequent health problems were: depressive disorder (23,6%), anxiety disorder (8.3%), cerebrovascular disease (5.1%), and loss/death of partner (3.8%). Reasons for crying cover the whole range of problems meet in general practice (Table 4).

19 patients cried more than once a year. A patient cried in her seven encounters with MPF; she suffered a stroke and subsequently developed pathological crying, a neurobehavioral sequel. Three patients cried three times and 15 cried twice.

Discussion

Crying in general practice is not uncommon. The incidence rate of crying in this study, 8.4 per thousand, is higher than the incidence rate of most acute episodes of illness in general practice in Spain, and elsewhere, as gastrointestinal infection, appendicitis, gastrointestinal haemorrhage, gonorrhoea, gout, streptococcal throat, goitre, pneumococcal pneumonia, sprains

Characteristics		n (%)
Patients	Known	135 (86)
	New	22 (14)
Place of the encounter	Health centre	145 (92)
	Patient's home	12 (8)
	<= 14	1 (1)
Age distribution (years)	15-24	7 (4)
	25-44	34 (22)
	45-64	51 (33)
	65-74	43 (27)
	>=75	21 (13)
Sex	Female	143 (91)
	Male	14 (9)
	Married	77 (49)
	Widower	41 (26)
Marital status	Single	26 (16)
	Divorced	12 (8)
	Common law	1 (1)
	Housewife	77 (49)
	Employed	38 (24)
	Pensioner	19 (12)
Labour situation	Unemployed	13 (8)
	Student	9 (6)
	Other	1 (1)
Level of education	Illiterate	19 (12)
	Basic	91 (58)
	College	19 (12)
	University	25 (16)
	Other	3 (2)
	Nuclear	83 (53)
	Monoparental	30 (19)
Family structure	Living alone	20 (13)
	Multigenerational	11 (7)
	Other	13 (8)
	<5	7 (4)
Consultation time	5-9	49 (31)
(minutes)	10-14	61 (39)
	>=15	40 (26)

Table 2. Characteristics of encounters with weeping patients (total 157).

and strains of ankle and foot, cardiac arrhythmia, etc¹⁸⁻²². But we do not found in primary care books a specific chapter or section about the topic and how to deal with a tearful patient in general practice (23-29). When GP trainees are asked about their behaviour in this case, it can be described in five steps: 1/ let the patient cry, 2/ verbalization of emotions and facilitation to express the problem, 3/ mutual understanding and solution finding, 4/ evaluation and maintaining contact and 5/ personal experience of great emotional effort¹³.

GPs are expected to counsel and support suffering patients but their training rarely gives them an understanding of

Table 3. Reasons for encounter and health problems of encounters with
weeping patients (total 157) (chapters of the International Classification
of Primary Care - 2) ⁹ .

Chapter of ICPC-2	In relationship with		Principal			
crying						
	Reason	Problem	Reason	Problem		
	n (%)	n (%)	n (%)	n (%)		
General	5 (3.2)	0	6 (3.8)	2 (1.3)		
Blood, immunity	0	1 (0.6)	3 (1.9)	2 (1.3)		
Digestive	5 (3.2)	0	13 (8.3)	7 (4.5)		
Eye	1 (0.6)	0	3 (1.9)	2 (1.3)		
Ear	0	0	1 (0.6)	0		
Circulatory	5 (3.2)	8 (5.1)	20 (12.7)	20 (12.7)		
Musculoskeletal	5 (3.2)	4 (2.5)	20 (12.7)	12 (7.6)		
Neurological	1 (0.6)	0	8 (5.1)	1 (0.6)		
Psychological	35 (22.3)		29 (18.5)	58 (36.9)		
Respiratory	3 (1.9)	2 (1.3)	13 (8.3)	12 (7.6)		
Skin	1 (0.6)		6 (3.8)	3 (1.9)		
Endocrine, metabolic	1 (0.6)	2 (1.3)	12 (7.6)	13 (8.3)		
Urological	1 (0.6)	0	5 (3.2)	6 (3.8)		
Pregnancy, family planning	amily planning 4 (2.5)		5 (3.2)	3 (1.9)		
Female genital	4 (2.5)	5 (3.2)	5 (3.2)	6 (3.8)		
Male genital	0	0	0	0		
Social problems	86 (54.8)	62 (39.5)	8 (5.1)	10 (6.4)		

the complex dynamics of strong feelings, how to pursuit therapeutic actions, as empathic action, and how to cope with their own feelings²⁻⁶. Dealing with patient's intense emotions is one of the GP's most difficult responsibilities in medical practice^{13,30}.

There are wide variations in the incidence rates, from 3.3 to 13.5 per thousand (Table 1), more than four times, as it is usual in any aspect of medical care³¹; for example, in Spain there are differences of up 40 times in the referral rates between different practices³² and also about Ambulatory Care Sensitive Conditions³³. It is not easy to explain the differences, but RPS (lowest rate) had shorter consultation times, and JG (highest rate) had 15 years of continuity in his position. MPF, being a female, might overcome her shorter period of continuity (only two years) as she had more male patients who cried and have an incidence rate of 9.7 per thousand. This rate might indicate a different female approach to patients' social and psychological problem and/or a "safer" female environment for strong feelings. Women patients were more likely to cry in general practice, a finding in accordance with other research on crying^{5,13}, but according to our results men might cry more frequently when attended by a female GP.

Patients can cry in their first encounter (14% of patients who cried were new patients) and at home (8%) (Table 2). Encounters were longer than usual, as 65% lasted ten minutes or more [mean time in Spain is five minutes, and only 13%

Table 4. Reasons for crying, as recorded. A few examples.

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	1.	He has not enough money for his family.
	2.	He is a terminal patient and is afraid of dying.
	3.	He is unemployed.
	4.	Her daughter has become divorced.
	5.	Her daughter is starting with a mental disease.
	6.	Her dog has died, and she has no relatives.
	7.	Her husband has a "liason".
	8.	Her husband has cancer with hepatic metastasis.
	9.	Her husband has died.
	10.	Her husband is an alcoholic.
	11.	Her kitchen has burnt.
	12.	Her mother has died.
	13.	Her two daughter are coming back to live at home because economic
		problems.
	14.	His brother has been in a psychiatric hospital.
	15.	His wife has died.
	16.	She cannot get pregnant.
	17.	She cannot live with her husband.
	18.	She does not like to go to live with her daughter.
	19.	She is afraid of being pregnant.
	20.	She is afraid of having cancer.
	21.	She is an English female, student, has diarrhoea, and feels alone in
		Madrid.
	22.	She is depressed.
	23.	She is ill, Moroccan, and feels alone.
	24.	She is in the process of being divorced.
	25.	She is in the waiting list, for cataracts surgery.
	26.	She is losing memory.
	27.	She has a congenital deformity and cannot accept it.
	28.	She has a headache.
	29.	She has an administrative problem with her sickness leave.
	30.	She has a tongue cancer.
	31.	She has been battered by his husband.
	32.	She has excessive menstruation.
	33.	She has lost her work.
	34.	She has three sons drug addict.
	35.	She want not to explain the reason why.
	36.	Today is the anniversary of her son' death.

of consultations last ten or more minutes^{34,35}). Patients from deprived (MPF, RPS) districts have more social problems as reasons for encounters than patients from the wealthy one (JG) (Table 1). Reasons for encounters and health problems mainly belong to chapter Z and P (Table 3). In general practice, chapter Z, social problems, represents only a little percentage of the morbidity, from 1 to 4% as health problems, according to the country^{22,36}; in Spain, 1.0%³⁷; in this study, 6.4% as health problem, principal (Table 3). And chapter P, psychological problems, represents 6 to 10% as health problems, according to the country³⁶ and 7.2% in Spain³⁷; in this study, 37% as health problem principal (Table 3). But it is not a surprise to find an over-representation of social and psychological problems in weeping patients. Reasons for crying cover the whole range of human problems, from physical pain to "my dog is dead", from poverty to social isolation, from fear of dying to fear of being pregnant, as expected in general practice (Table 4). In contrast, when asking GP in Croatia to comment about crying patients most have as principal problem malignant disease (38%), family problems (22%), death of someone close (18%), chronic disease (13%) and other reasons (being social problem, poverty, 3%)²². Perhaps culture and behaviour in Croatia are different, or the GPs remember the situations in a "biological way" which put the focus on biological diseases as cancer.

Our study has many limitations. Main concern is the generalizability of our findings (external validity). Only three GP and one year' registration cannot give a general picture of the question. But our results fit with what we know about General/Family practice as a discipline and our objective was only "to open the box" and know something about the incidence, and reasons for crying in general practice. Another concern might be the "neutrality" of the recording GP (internal validity). We tried to work as usual, and not to refrain, not to reinforce the crying "behaviour" of our patients, and our impression is that the incidence and reasons were as in a normal year.

There are several remaining important questions that should be addressed in future research, like reasons for variability, influence of patient education and the different incidence rates according to patients' and GP' sex, international variations about the weeping patient and so on. But, no doubt, it is a critical topic in General/Family Practice.

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References

- 1. Yeo M, Longhurts M. Intimacy in the patient-physician relationship. Can Fam Physician. 1996; 42: 1505-8.
- 2. Platt FW. Conversation repair: Case studies in doctor-patient communication. Boston: Little, Brown and Co.; 1995.
- Wilmer HA. The doctor-patient relationship and the issues of pity, sympathy, and empathy. Br J Med Psychology. 1968; 41: 243-8. http:// dx.doi.org/10.1111/j.2044-8341.1968.tb02029.x

- 4. Krauser PS. Tears. JAMA. 1989; 261: 3612. http://dx.doi.org/10.1001/ jama.1989.03420240126039
- Wagner RE, Hexel M, Bauer WW, Kropriunigg U. Crying in hospitals: a survey of doctors', nurses', and medical students' experience and attitudes. Med J Aust. 1997; 166: 13-6.
- Nieuwenhuis-Mark RE, Van Hoek A, Vingerhoets A. Understanding excessive crying in neurologic disorders: nature, pathophysiology, assessment, consequences, and treatment. Cogn Behav Neurol. 2008; 21: 111-23. http://dx.doi.org/10.1097/WNN.0b013e31816be8f8
- Paparrigopoulos T, Ferentinos P, Kouzoupis A, Koutsis G, Papadimitriou GN. The neuropsychiatry of multiple sclerosis: focus on disorders of mood, affect and behaviour. Int Rev Psychiatry. 2010; 22: 14-21. http:// dx.doi.org/10.3109/09540261003589323
- Presecki P, Mimica NP. Involuntary emotional expression disorder- new/old disease in psychiatry and neurology. Psychiatr Danub. 2007; 19: 184-8.
- Robinson RG, Parikh RM, Lipsey JR, Starkstein SE, Price TR. Pathological laughing and crying following stroke: Validation of a measurement scale and a double-blind treatment study. Am J Psychiatry. 1993; 150: 286-93.
- Grinblat N, Grinblat E, Grinblat J. Uncontrolled crying: characteristics and differences from normative crying. Gerontology. 2004; 50: 322-9. http://dx.doi.org/10.1159/000079131
- Vingerhoets AJ, Rottenberg J, Cevaal A, Nelson JK. Is there a relationship between depression and crying? A review. Acta Psychiatr Scand. 2007; 115: 340-51. http://dx.doi.org/10.1111/j.1600-0447.2006.00948.x
- 12. Nyman K. The weeping patient. Aust Fam Physician. 1991; 20: 444-5.
- Petricek G, Vric-KeglenicM, Lazic C, Murgic L. How to deal with a crying patient? A study from a primary care setting in Croatia using the "critical incident technique". Eur J Gen Pract. 2011; 17: 153-9. http:// dx.doi.org/10.3109/13814788.2011.576339
- Gérvas J, Pérez-Fernández MM, Starfield B. Primary care, financing and gatekeeping in Western Europe. Fam Pract. 1994; 11: 307-17. http://dx.doi.org/10.1093/fampra/11.3.307
- Gérvas J, Pérez Fernández M. Organização da atenção primária em outros países do mundo. In: Gusso G, Lopes JMC, coordenadores. Tratado de Medicina de Familia e Comunidade. Porto Alegre: SBMFC Artmed; 2011. v. 1, p. 42-51.
- Gómez-Rodríguez E, Moreno-Raymundo P, Hernández-Monsalve M, Gérvas J. Socio-economic status, chronic morbidity and health services utilization by families. Fam Pract. 1996; 13: 382-5. http:// dx.doi.org/10.1093/fampra/13.4.382
- World Organization of National Colleges, Academies WONCA. International Classification Committee. International Classification of Primary Care. 2nd ed. Oxford: Oxford University Press; 1998.
- Palomo L, Gérvas J, García-Olmos L. La frecuencia de las enfermedades atendidas y su relación con el mantenimiento de la destreza del médico de familia [The frequency of illness attended and its relationship with the maintenance of the family doctor's skill]. Aten Primaria. 1999; 23: 363-70.
- Fitjen GH, Blijham GH, Knottnerus JA. Occurrence and clinical significance of overt blood loss per rectum in the general population and in medical practice. Br J Gen Pract. 1994; 44: 320-5.
- Lamberts H, Brouner HJ, Mohrs J. Reason for encounter and episode of care and process oriented standard output from the transition project. Amsterdam: Department of Family Medicine; 1991. v. 1-2.
- McCormick A, Fleming D, Charlton J. Morbidity statistics from general practice. Fourth national study 1991-1992. London: HMCO; 1995.

- 22. Soler JK, Okkes I, Oskams S, Van Boven K, Zivotic P, Jevtic M, et al. An international comparative family medicine study of the Transition Project data from the Netherlands, Malta and Serbia. Is family medicine an international discipline? Comparing incidence and prevalence rates of reasons for encounter and diagnostic titles of episodes of care across populations. Fam Pract. 2012; 29: 283-98. http://dx.doi.org/10.1093/ fampra/cmr098
- Taylor RB, David AK, Johnson TA, Melesa-Phillips D, Scheger JE. Family medicine: Principles and practice. 4th ed. New York: Spinger Verlag; 1994.
- 24. Rakel RE. Textbook of family practice. 5th ed. Philadelphia: WB Saunders; 1995.
- 25. Barker LR, Burton JR, Zieve PD. Principles of ambulatory medicine. 4th ed. Baltimore: Willians and Wilkins; 1995.
- Noble J, Greene HL, Modest GA, Levison W, Young MJ. Textbook of primary care medicine. 2nd ed. St. Louis: Mosby; 1996.
- 27. Sloane PD, Slatt LM, Ebell MH, Jacques LB. Essentials of familiy medicine. 4th ed. Baltimore: Lippincott Williams Wilkins; 2002.
- Sociedad Española de Medicina Familiar y Comunitaria SEMFYC. Tratado de medicina de familia y comunitaria. Barcelona: SEMFYC; 2007.
- 29. Gusso G, Lopes JM (organizadores). Tratado de Medicina de Família e Comunidade. Porto Alegre: SBMFC Artmed; 2012.
- Gérvas J, Pérez Fernández M, Gutierrez Parres B. Consultas sagradas: serenidad en el apresuramiento [Sacred encounters: serenity in haste]. Aten Primaria. 2009; 41: 41-4. http://dx.doi.org/10.1016/j. aprim.2008.05.005
- Andersen TF, Mooney G, editors. The challenges of medical practice variations. Hampshire: MacMillan Press; 1990.

- García-Olmos LM, Abraira V, Gérvas J, Otero A, Pérez-Fernández M. Variability in GP's referral rates in Spain. Fam Pract. 1995; 12: 159-62. http://dx.doi.org/10.1093/fampra/12.2.159
- 33. Gérvas J. Hospitalizaciones evitables en España: el poderoso atractivo del hospital y la debilidad de la atención primaria [Ambulatory Care Sensitive Conditions in Spain: the strong attraction of hospital and the weakness of primary care]. In:Variabilidad en las hospitalizaciones potencialmente evitables relacionadas con las reagudizaciones de enfermedades crónicas. Atlas de Variaciones en la Práctica Médica. 2011; 8(4): 329-30.
- Hart JT. Innovative consultation time as a common European currency. Eur J Gen Pract. 1995; 1: 34-7. http://dx.doi. org/10.3109/13814789509160753
- 35. Pastor-Sánchez R, López-Miras A, Pérez-Fernández M, Gérvas J. Continuidad y longitudinalidad en medicina general en cuatro países europeos [Continuity and longitudinality of care in general practice in four European countries]. Rev Esp Salud Pública. 1997; 71: 479-85. http://dx.doi.org/10.1590/S1135-57271997000500006
- Lamberts H, Wood M, Hofmans-Okkes I, editors. The International Classification of Primary Care in the European Community. Oxford: Oxford University Press; 1993.
- 37. Forés M, Gérvas J, Bonet M, Marcos L, Tomás P, Sagués A, et al. ICPC in Spain. Epidemiological aspects of patient data in Spanish general practice. In: Lamberts H, Wood M, Hofmans-Okkes I, editors. The International Classification of Primary Care in the European Community. Oxford: Oxford University Press; 1993. p. 119-24.