



ORIGINALES

Perception of health in patients during the COVID-19 pandemic

Percepción de la salud en los pacientes durante la pandemia COVID-19

Lucía Pérez Fernández¹
Francisco Miguel Escandell Rico²
Loreto Macia Soler²

¹ Nursing Coordinator. Almoradí Health Center, Department of Health 21 SNS Orihuela. Alicante. Spain.

² University of Alicante. Alicante. Spain. francisco.escandell@ua.es

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ABSTRACT:

Objective: To analyze the perception of health in primary care patients of the health department 21 during the COVID-19 epidemic period.

Material and Methods: Cross-sectional observational study. Held in the Department of Health 21 (Alicante-Spain) from February 23, 2021, to May 15, 2021. A total of 243 users participated. A semi-structured interview was used, taking as a reference the information from the Valencian Community Health Survey Adapted. The variable result of the perception of health in patients was considered. The inclusion criteria considered 18-year-olds who were served during the COVID-19 pandemic and who wanted to participate in the study.

Results: The ages were comprised between 20 and 94, years with an average of 64.55 years (SD 19.97). In the perception of health, we highlight the group of women who reported having a worse health (69%) during the last 12 months and major problems to walk (59.2%). Our results indicate a significant association in the social resources used for the activities of daily life ($p < 0.001$) and teleassistance ($p < 0.043$).

Conclusion: On a practical level, if we have an account of life expectancy in the population, associated comorbidities and health care in the pandemic period, we can decide that the perception of health is worse in women. Despite all these factors, satisfaction with health services during the pandemic is satisfactory.

Keywords: primary care; perception; COVID-19; health determinants; health resources

RESUMEN:

Objetivo: Analizar la percepción de la salud en los pacientes de atención primaria del departamento de salud 21 durante el período epidémico de la COVID-19.

Material y Métodos: Estudio observacional transversal. Realizado en el Departamento de Salud 21 (Alicante-España) en los meses del 23 de febrero de 2021 al 15 de mayo de 2021. Participaron un total de 243 usuarios. Se utilizó una entrevista semiestructurada, tomando como referencia la información del Cuestionario de Salud de la Comunidad Valenciana Adaptado. Se consideró la variable resultado la percepción de la salud en los pacientes. Los criterios de inclusión tomaron en cuenta a personas

mayores de 18 años que fueran atendidas durante la pandemia de COVID-19 y que quisieran participar en el estudio.

Resultados: Las edades estuvieron comprendidas entre los 20 y 94, años con una media de 64,55 años (DE 19,97). En la percepción de la salud, destacamos el grupo de las mujeres donde refieren tener una peor salud (69%) durante los últimos 12 meses y mayores problemas para caminar (59,2%). Nuestros resultados indican asociación significativa en los recursos sociales utilizados para las actividades de la vida cotidiana ($p < 0,001$) y la teleasistencia ($p < 0,043$).

Conclusión: A nivel práctico, si tenemos en cuenta la esperanza de vida en la población, las comorbilidades asociadas y la asistencia sanitaria en el periodo pandémico, podemos decir que la percepción de la salud es peor en las mujeres. A pesar de todos estos factores, la satisfacción con los servicios sanitarios en periodo pandémico es satisfactoria.

Palabras clave: atención primaria; percepción; COVID-19; determinantes de la salud; recursos en salud.

INTRODUCTION

During the period of the COVID-19 pandemic there has been a significant overuse of health services in all health systems worldwide, with particular emphasis during the vaccination period on primary care ⁽¹⁾. Telemedicine has been used almost constantly, with a loss of direct professional-user contact that IT technologies cannot replace ⁽²⁾. On-demand activities have surpassed any planning that has an impact on the implementation of preventive activities or on the technological accessibility barriers of certain socio-cultural groups ^(1,2).

The effectiveness of preventive interventions is enhanced by elements such as empathy, quality of the professional-patient relationship and warmth of clinical communication, aspects that are altered by care through electronic tools ⁽²⁾. It also opens opportunities for prevention that allow us to focus health services on the main health problems in the community and to provide the necessary promotion, prevention, treatment and rehabilitation services to solve these problems ⁽³⁾.

On the other hand, the pandemic, of a community nature, has favored the commitment of citizens to co-responsibility and the importance of empowerment in disease control, together with the perception that the health system alone is insufficient to prevent diseases ⁽³⁾. Technological development has great advantages, such as advances in medical records that make it possible to monitor lifestyles and improve people's health information systems, both in their homes and in their social environment, favoring selective and highly targeted interventions to prevent diseases ⁽⁴⁾.

Pandemics can have differential impacts on women and men, ranging from risk of exposure and biological susceptibility to infection to social and economic implications, and people's experiences are likely to vary according to their biological and gender characteristics and their interaction with other social determinants of health ^(5,6).

The global response to COVID-19 has been described as "*too little, too late*", with national and international efforts at an unplanned pace, in the face of many aspects of this situation that remain uncertain ^(7,8). However, this should serve to implement global protocols to prepare for future scenarios and enable us to be ready for similar situations. The World Health Organization (WHO) urges its Member States and all global actors to target investments in quality, gender-sensitive research on the

adverse health, social and economic impacts of COVID- 19 ⁽⁷⁻¹⁶⁾. Advancing proposals for improvement includes further related research such as the one presented in this study that aims to analyze the health perceptions of primary care patients in health department 21 during the epidemic period of COVID-19.

METHODS

Study design and subjects

A cross-sectional observational study was conducted in a basic health area, which serves a total population of 26,195 inhabitants with a rural profile located in the south of the Valencian Community (Spain). The sample size reached was n=243 patients, the type of sampling was random stratified proportional by type of care/consultation in primary care.

Inclusion criteria: people over 18 years of age who were seen in the basic health area of study during the COVID-19 pandemic from 23 February 2021 to 15 May 2021 and who wished to participate in the study. Exclusion criteria: Cognitive disability and inability to respond.

Procedure

Health care from March 2020 was modified due to the pandemic and a change in the care model was implemented, agreed by consensus through protocols that indicated how health care should be provided. Patients were divided for care into patients presenting with respiratory symptoms and patients presenting with other pathologies. These were selected according to their appearance in the nursing diaries and their willingness to participate in the study.

Variables

A semi-structured interview was used, taking as a reference the information from the health questionnaire of the Valencian Community, adapted from (17). To complement the information, the digital medical history was used to extract comorbidity, height and weight. The perception of health in patients during the COVID-19 pandemic was considered as an outcome variable, and sex, age and socio-demographic characteristics as explanatory variables. In addition, the following covariates were taken into account: health consultations and social resources used.

Ethical considerations

Following a favorable report from the Research Ethics Committee (REC) of department 21, with registration code TFM-2021-010, participants were given an information sheet on the study and were asked to provide informed consent. The ethical principles for medical research on human subjects, as set out in the "Declaration of Helsinki", were considered as the mode of participation in the study and the use of personal data according to the Organic Law 3/2018, of 5 December, on the protection of personal data and guarantee of digital rights. The data are protected

from use and not allowed to persons outside the research and are therefore considered strictly confidential.

Data analysis

A descriptive analysis of all the variables was carried out by calculating frequencies and percentages by sex. The male/female groups were calculated using contingency tables, applying the Chi-square test to compare the variables of interest according to sex. To calculate the magnitude of association, the Odds Ratio (OR) was calculated with its 95%CI. All tests were considered significant if $p < 0.05$. The following programs were used: database (Excel) and SPSS 25.0 statistics.

RESULTS

The total sample was 243 users, 103 men and 140 women. Ages ranged from 20 to 94, with an average of 64.55 years (SD 19.97). The most frequent type of occupation among women was retired (46%), followed by housewife (18.6%). In men the most frequent occupation was 52.4 % retired, followed by farmers with 12.6 %.

Table 1 shows the socio-demographic characteristics and comorbidity in men and women attended in the basic health area under study. A significant association by sex was observed for body mass index ($p < 0.001$) with higher percentages of overweight and obesity in women. Significant associations were also found for coronary heart disease ($p < 0.005$), lung disease ($p < 0.027$) and smoking ($p < 0.001$).

Table 1. Socio-demographic characteristics and comorbidity

Variables	TOTAL	MEN ^a		WOMEN ^b		P*	
		N=103 (%)		N=140 (%)			
Age	20- 44 years	41	17	16,5	24	17,1	0,513
	45 -64 years	64	31	30,1	33	23,6	
	>65 years	138	55	53,4	83	59,3	
IMC	< 18.99: Underweight	2	0	0	2	1,4	0,001
	19 -24.99: Normal weight	45	47	45,6	37	26,4	
	25 -29.99: Overweight	93	35	34	46	32,9	

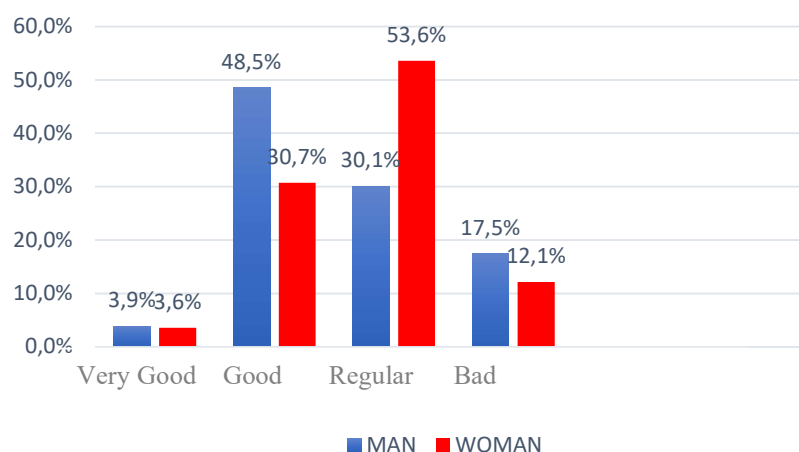
	> 30: Obesity	103	21	20,4	55	39,3	
	Uneducated	60	21	20,4	39	27,9	
Level of education	Primary	128	53	51,5	75	53,6	0,193
	FP/Secondary	27	16	15,5	11	7,9	
	University students	28	13	12,6	15	10,7	
	Working	68	33	32	35	25	
Employment status	Unemployed with benefits	29	12	11,7	17	12,1	
	Unemployed without benefits	5	1	1	4	2,9	0,410
	Retired	68	57	55,3	84	60	
	Single	30	15	14,6	13	9,3	
	Living together as a couple	2	2	1,9	0	0	
Marital status	Married	119	55	53,4	64	45,7	0,026
	Divorced	9	5	4,9	4	2,9	
	Widower	85	26	25,2	59	42,1	
Lives with partner	Yes	119	61	51,2	58	48,8	0,004
Hypertension	Yes	147	66	64,1	81	57,9	0,199

Coronary heart disease	Yes	72	40	38,8	32	22,9	0,005
EPOC	Yes	38	22	21,4	16	11,4	0,027
Smoking	Yes	88	52	50,5	36	25,7	0,001
Immunosuppression	Yes	29	11	10,7	18	12,9	0,379
Cancer	Yes	45	21	20,4	24	17,1	0,316
Diabetes	Yes		37	35,9	41	29,3	0,016

^a No.: number of men in basic health zones^b ; No.: number of women in basic healthzones; *Chi-squared test. $p \leq 0.05$.

About the referring to questions the perception of health, we highlight the group of women where they report worse health (69%) during the last 12 months and greater problems walking (59.2%). Figure 1 shows the assessment of self-perceived health by sex.

Figure 1. Perceived self-health level by sex



With regard to the degree of satisfaction with the health services, 67% of women and 52% of men were satisfactory.

Table 2 below shows the results obtained after the medical consultation in the last 4 weeks. Advice, complementary tests and prescription of medication are the results with the highest percentages derived from the medical consultation.

Table 2. Medical consultation in the last 4 weeks

Result of the medical consultation		Men n=103		Woman n=140	
			%		%
Nursing consultation	Yes	25	24.3	54	38.6
Medical consultation	Yes	11	10.7	12	8.6
Return for review	Yes	35	3.4	36	25.7
prescribed medication	Yes	38	36.9	68	48.6
Advice	Yes	45	42.7	53	37.9
Supplementary tests	Yes	35	3.4	62	44.3
Hospitalization	Yes	2	1.9	8	5.7
Hospital emergency	Yes	2	1.9	2	1.4

Table 3 below shows the social resources used in the last 12 months. Significant associations were observed for activities of daily living ($p < 0.001$) and telecare ($p < 0.043$).

Table 3. Characteristics of the social resources used at home

Questions		Men ^a		Woman ^b		P*
		n:103		n:140		
		n	%	n	%	
Served at your home	Yes	52	50,5	77	55	0,285
Personal care and grooming support	Yes	22	21,4	36	25,7	0,264
Activities of daily life	Yes	10	9,7	1	0,7	0,001
Home-delivered food	Yes	10	9,7	25	17,9	0,053
Telecare	Yes	24	23,3	48	34,3	0,043
Home accompaniment	Yes	18	17,5	28	20	0,372
Other	Yes	0	0	0	0	-
Have you ever needed medical assistance and not received it?	Yes	24	23,3	40	28,5	0,570

^a No.: number of men in basic health zones^b ;No.: number of women in basic health zones;
*Chi-squared test. $p \leq 0.05$.

DISCUSSION

The aim of this study was to analyze the perception of health in primary care patients in health department 21 during the epidemic period of COVID-19. The following dimensions were analyzed using the Valencian Community Health Survey 2016⁽¹⁷⁾: self-perceived level of health, health consultations and social resources used.

About the characteristics of the participants, we highlight the high average age of participation (65 years), which is in line with life expectancy. Like other studies such as the executive summary of the annual report of the national health system for 2019⁽¹⁸⁾, where life expectancy for the Spanish population stands at 83.4 years, with 80.4 years in men and 86.2 years in women, which represents an increase of 4 years since 2001.

In line with other studies⁽¹⁷⁾, sex has a clear impact on overweight and obesity in women. In our study, a significant association by sex was observed for body mass index. In relation to comorbidities and similar to the results of the 2016 Valencian Community survey, a significant association by sex was observed, with men standing out with higher values obtained for coronary heart disease, lung disease and smoking.

With regard to the health perception dimension, women report worse health and moderate problems with walking. If we compare our results with the health survey of the Valencian Community 2016⁽¹⁷⁾, we observe similarities in that men report a better state of health than women. This is similar to other studies such as that of Abufaraj et al.,⁽¹⁹⁾ where Jordanian women experienced worse results in terms of well-being. On the other hand, despite observing low values in health perception, we highlight, as in other studies^(17,20), the good results obtained with respect to satisfaction with health services regardless of age and gender.

We observed an upward trend in the use of health services during the COVID-19 pandemic in terms of health care consultations, where, as a result, prescriptions for medicines, complementary tests and medical advice predominated. Specialized care consultations and emergency services also decreased. This phenomenon could be due to the fear of infection in coronavirus care services during the pandemic. In contrast, compared to other pre-pandemic studies⁽¹⁷⁾, specialized care and hospital emergency departments were predominant.

The ageing of the population is sometimes associated with the need for support and care at home. With regard to the social resources used at home, our data show a significant association by sex in activities of daily living and telecare. As in other studies, the need for help with activities of daily living, telecare and support for grooming and personal care stand out^(17,21). Other studies also mention social disconnection among older people with increased demand for activities of daily living and telecare as particularly detrimental consequences of the COVID-19 pandemic^(22,23).

Among the limitations, we highlight those inherent to the type of study design and the sample corresponding to a single health department. We have not studied the main

problem for which they consult, nor the severity. We highlight as possible biases the selection of the sample and the information bias of the interviewers.

CONCLUSION

On a practical level, if we take into account life expectancy in the population, associated comorbidities and health care in the pandemic period, we can say that the perception of health is worse in women. Despite all these factors, satisfaction with health services in the pandemic period is satisfactory.

Finally, it seems necessary to raise awareness among health professionals and implement protocols that prepare for future scenarios and allow us to be ready for similar situations, incorporating a comprehensive approach in their responses to COVID-19. These protocols should ensure that public health policies and measures are able to curb the epidemic taking into account gender and barriers to health access.

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