

# How does satisfaction with the health-care system relate to patient experience?

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**Objective** To explore what determines people's satisfaction with the health-care system above and beyond their experience as patients.

**Methods** Data on health system responsiveness, which refers to the manner and environment in which people are treated when they seek health care, provides a unique opportunity to better understand the determinants of people's satisfaction with the health-care system and how strongly this is influenced by an individual's experience as a patient. The data were obtained from 21 European Union countries in the World Health Survey for 2003. Additive ordinary least-squares regression models were used to assess the extent to which variables commonly associated with satisfaction with the health-care system, as recorded in the literature, explain the variation around the concept of satisfaction. A residual analysis was used to identify other predictors of satisfaction with the health-care system.

**Findings** Patient experience was significantly associated with satisfaction with the health-care system and explained 10.4% of the variation around the concept of satisfaction. Other factors such as patient expectations, health status, type of care, and immunization coverage were also significant predictors of health system satisfaction; although together they explained only 17.5% of the observed variation, while broader societal factors may largely account for the unexplained portion of satisfaction with the health-care system.

**Conclusion** Contrary to published reports, people's satisfaction with the health-care system depends more on factors external to the health system than on the experience of care as a patient. Thus, measuring the latter may be of limited use as a basis for quality improvement and health system reform.

Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

## Introduction

Across the United States of America and Europe, consumer satisfaction is playing an increasingly important role in quality of care reforms and health-care delivery more generally. However, consumer satisfaction studies are challenged by the lack of a universally accepted definition or measure<sup>1-6</sup> and by a dual focus: while some researchers focus on patient satisfaction with the quality and type of health-care services received,<sup>7-10</sup> others focus on people's satisfaction with the health system more generally.<sup>11-14</sup> The importance of both perspectives has been demonstrated in the literature. For example, satisfied patients are more likely to complete treatment regimens and to be compliant and cooperative.<sup>14,15</sup> Research on health system satisfaction, which is largely comparative, has identified ways to improve health, reduce costs and implement reform.<sup>16</sup>

The absence of a solid conceptual basis and consistent measurement tool for consumer satisfaction has led, over the past 10 years, to a proliferation of surveys that focus exclusively on patient experience, i.e. aspects of the care experience such as waiting times, the quality of basic amenities, and communication with health-care providers, all of which help identify tangible priorities for quality improvement. In the future, measures of patient experience, intended to capture the "responsiveness" of the health system,<sup>17</sup> a concept developed

by WHO, are likely to receive even greater attention as physicians and hospitals come under growing pressure to improve the quality of care, enhance patient safety and lower the cost of services. Health system responsiveness specifically refers to the manner and environment in which people are treated when they seek health care.

The increasing importance of patient experience and the sustained interest in comparing people's satisfaction with the health system across different countries and time periods suggests the need to characterize the relationship between them. Research relating global satisfaction ratings with patient experience has revealed strong associations between the two.<sup>18</sup> Yet, to what extent patient experience explains satisfaction with the health-care system remains unclear. The literature suggests that much of the remaining variation in health system satisfaction after adjusting for factors commonly used to measure the concept is a reflection of patient experience.<sup>19,20</sup> We disagree and hypothesize that patient experience accounts for only a small fraction of the unexplained variation in health system satisfaction, even after adjustments for the demographic, health and institutional factors with which such satisfaction is commonly associated.<sup>16-18,21-24</sup> In particular, we expect most of the variation in satisfaction with the health-care system to be explained by factors above and beyond patient experience.

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In this paper, we explore the factors underlying people's degree of satisfaction with the health-care system and the extent to which the latter reflects their experience of care. Data from the module on health system responsiveness in the World Health Survey for 2003<sup>25</sup> provided a unique opportunity to better understand the determinants of people's satisfaction with the health-care system, besides their experience as patients, in 21 countries of the European Union (EU). Throughout the paper, we use WHO's term "responsiveness" to refer to satisfaction with the health system from the perspective of patient experience.

## Methods

### Study data

The conceptual basis and design of the responsiveness module in the World Health Survey have been described extensively in the literature.<sup>22,24</sup> This paper presents results from the responsiveness module of the World Health Survey that was fielded in 71 countries in 2002 and 2003 (the survey instrument is available at: <http://www.who.int/healthinfo/survey/whslongindividuala.pdf>). This paper focuses on the EU, given the similarity in health outcomes among its member countries<sup>26</sup> and the relevance of consumer satisfaction to quality of care reforms in that region. We include in the analysis all 21 EU countries for which data were available in the World Health Survey for 2003. The survey was conducted by face-to-face interviews in all countries except Luxembourg, where it was conducted by telephone. Survey respondents were chosen through stratified, multistage cluster sampling and interviewed in the national language. Sample size varied by country. Selected unweighted demographic characteristics are presented in Table 1.

Responsiveness captures eight domains of patient experience, selected for their relevance to all health systems: autonomy, choice, communication, confidentiality, dignity, prompt attention, quality of basic amenities and support (access to family and community support networks). The support domain was not included in the analyses since it was intended only for inpatients. Hereafter, all references to patient experience refer to these domains, which are conceptually similar to those in patient

experience surveys commonly used in the United States and the United Kingdom (the Consumer Assessment of Health Plans Survey and the Picker surveys, respectively). Each responsiveness domain was measured on a 5-point scale, with 1 for very good and 5 for very bad. To ease the interpretability of the study results, for the analysis we reversed the scale applied in the survey, so that a response of 5 indicated a very good rating and a response of 1, a very bad one. In addition to a series of self-report questions about each responsiveness domain, survey respondents were also asked several vignette questions surrounding short, hypothetical descriptions of experiences with the health system relating to each responsiveness domain. They were specifically asked to rate the experience of the person in the story as if it were their own. Box 1 shows a vignette that deals with respectful treatment. In each responsiveness domain, respondents were asked the same questions for the vignettes as for the self reports. Variation in vignette responses reveals interpersonal incomparability, or differences in the way groups of respondents understand and use ordinal response categories (e.g. 1, very good; 2, good; 3, moderate; 4, bad; 5, very bad).<sup>27–29</sup> Because vignettes are designed to capture differences in the way individuals use response categories, they are also associated with their expectations.

Each country's gross domestic product (GDP) per capita, measured in terms of purchasing power parity (PPP), was obtained from *World development indicators* for 2003.<sup>30</sup> Immunization coverage (e.g. the percentage of 1-year-olds given one dose of measles vaccine) was obtained from *World health statistics* for 2005.<sup>31</sup>

### Methodology

We used a series of additive ordinary least-squares (OLS) regression models to evaluate the extent to which variables commonly associated with satisfaction with the health-care system explained observed variation in satisfaction. We restricted our analysis to survey respondents (or their children) who had received inpatient or outpatient care in the previous 5 years to more precisely characterize the relationship between the experience of care and satisfaction with the health-care system (approx-

mately 90% of survey respondents reported on the health care they received themselves, rather than their children). In the models, satisfaction with the health-care system was the outcome variable of interest. Since the latter was an ordered categorical variable, an ordered probit model would have been theoretically more appropriate than an OLS regression. After trying both models and not finding any qualitative differences between them, we chose to present the results obtained with the OLS method to facilitate interpretation.

Seven sets of covariates were incrementally added to the model and categorized as follows: patient experience (e.g. responsiveness domains); proxies of patient expectations (e.g. gender, age, education, GDP per capita); self-reported health status; type of care (e.g. outpatient versus inpatient status, most recent care received, provider type, reason for care); personality; vignette scores (e.g. average vignette score, per cent reporting top vignette score, per cent reporting bottom vignette score), and a coverage measure (e.g. per cent of 1-year-olds given one dose of measles vaccine). Whether a responsiveness domain was included in the models as dichotomous or continuous, depended on the cut-off points suggested by the data.

All covariates were selected based on previous research in which an association with satisfaction was detected.<sup>8,16,32–42</sup> Since we hypothesized that varying degrees of satisfaction with the health-care system can largely be explained by factors independent of patient experience, we theorized that all variables included in the survey influence satisfaction. However, a few factors that we theorized to be important predictors of satisfaction with the system, such as the media (which we examine in more detail in the discussion section), were not covered by the survey.

The personality measure (crudely proxied by a measure of sadness obtained from the World Health Survey) was included because the psychology literature highlights the effect of individual negativity on survey responses.<sup>33,36</sup> The coverage measure was included as a proxy for health system access under the assumption that where coverage is higher, more people have access to care. Thus, we expected

Table 1. Characteristics of respondents and satisfaction with the health system in 21 European Union countries, World Health Survey for 2003<sup>a,b</sup>

Country	n	Female %	Age under 65 years %	High school complete %	Very satisfied %	Fairly satisfied %	Neutral %	Fairly dissatisfied %	Very dissatisfied %
Austria	1 055	62.4	85.7	37.0	70.4	21.7	4.0	2.4	1.5
Belgium	1 012	56.4	83.4	75.2	50.3	39.1	6.0	3.0	1.6
Czech Republic	935	52.7	79.6	67.1	10.4	42.6	27.9	17.1	2.1
Denmark	1 003	52.6	76.6	46.3	54.4	37.9	3.0	3.8	1.0
Estonia	1 012	63.7	77.2	53.4	2.3	25.7	31.9	26.1	14.1
Finland	1 013	55.4	71.7	47.5	19.6	58.1	8.5	10.9	2.9
France	1 008	59.9	86.4	70.3	37.6	46.5	10.6	4.0	1.4
Germany	1 259	59.6	74.7	31.3	19.8	45.2	15.8	13.6	5.5
Greece	1 000	50.0	70.1	47.3	16.7	31.3	24.8	13.1	14.1
Hungary	1 419	58.4	75.9	48.6	8.0	25.7	44.2	15.1	7.0
Ireland	1 014	54.7	84.7	70.0	32.3	37.5	9.6	8.1	12.6
Italy	1 000	57.4	77.3	52.7	7.2	41.8	24.2	15.9	10.9
Latvia	856	66.7	71.0	49.3	3.7	28.8	27.6	28.9	11.1
Luxembourg	700	51.1	85.0	55.3	28.6	47.3	11.7	11.0	1.4
Netherlands	1 091	67.5	84.7	68.1	28.2	49.7	8.5	10.8	2.8
Portugal	1 030	62.0	68.9	21.5	3.9	46.7	21.7	19.5	8.1
Slovakia	2 519	61.3	93.1	82.3	1.3	26.2	42.3	21.8	8.4
Slovenia	585	53.7	78.4	54.0	10.6	41.2	27.5	13.6	8.1
Spain	12 023	58.7	67.5	29.1	10.8	44.5	30.0	9.4	5.3
Sweden	1 000	58.4	73.7	57.9	28.9	38.9	13.0	16.5	2.7
United Kingdom	1 200	63.2	71.0	41.5	35.4	39.2	9.3	9.9	6.3

<sup>a</sup> Numbers may not add up to exactly 100% due to rounding errors.

<sup>b</sup> Satisfaction data are weighted by post-stratification sampling weights.

Data from the World Health Survey for 2003.<sup>25</sup>

greater individual satisfaction with the health-care system in areas with higher immunization coverage. While we included sociodemographic factors in our models only as a proxy for patient expectations, the literature suggests that their association to satisfaction may have to do with other reasons as well.<sup>7,10</sup> Exploring these additional reasons is beyond the scope of this paper.

In the literature, vignette responses are used to adjust self-responses to make them comparable across populations.<sup>27–29</sup> For this analysis, we used three vignette measures: the average vignette score and the percentages of individuals who reported the most positive and the most negative responses

(very good and very bad, respectively). Each variable was continuous. We anticipated that higher vignette scores, which partially reflect lower expectations, would be associated with higher satisfaction. Vignette responses are also likely to reflect, to some degree, differences in individual outlook (i.e. a positive or negative attitude). Such scores differ from the measure of sadness in that they reflect an individual's sustained overall outlook, whereas the latter captures acute feelings of sadness over the prior 12 months.

The full set of cascading results can be found in Appendix A (available at: <http://healthmetricsandevaluation.org/resources/pubs.html>). In the body of

the paper, we highlight results from the seventh and final model. We added each set of covariates to the model incrementally to show the marginal increase in explanatory power related to patient reports of health system satisfaction above and beyond patient experience. We first added the covariates that we expected to have the highest explanatory power. A complete list of the questions for the outcome variable and the covariates is presented in Appendix B (available at: <http://healthmetricsandevaluation.org/resources/pubs.html>). Since our data do not allow for directly testing the relationship between broader societal factors and health system satisfaction, we end by identifying possible factors not included in our models that may account for the unexplained variation in satisfaction with the health-care system.

## Findings

### Overall satisfaction and its determinants

Table 1 presents overall satisfaction with the health-care system in 21 European Union countries. Most respondents

#### Box 1. Sample vignette dealing with respectful treatment

[Patricia] went to a crowded clinic. At first no one greeted her, but after she had waited for 5 minutes, a nurse called her to an area where she was examined behind a small screen that hid most of her body from the other patients.

How would you rate the way [Patricia's] privacy was respected during physical examinations and treatments?

1, very good; 2, good; 3, moderate; 4, bad; 5, very bad.

Taken from the World Health Survey for 2003.<sup>25</sup>

rated their health systems positively. In all but five countries, more than half of the respondents reported feeling “very satisfied” or “fairly satisfied”.

The key results of the seventh and final OLS regression model, which was used to explore the possible determinants of satisfaction with the health-care system, are presented in Table 2. The full set of cascading results can be found in Appendix A. The results presented in the following sections are all given in Table 2, unless otherwise indicated.

### Patient experience

All the domains for responsiveness were positively and significantly related to reported satisfaction with the health-care system ( $P < 0.01$ ), with the sole exception of confidentiality, which showed borderline significance. In model 1, where only responsiveness variables were included, the explained variation was 10.4% (Appendix A). Other factors that may explain the remaining variation in satisfaction with the health-care system are described below.

### Proxies for patient expectations

For lack of a way to directly measure what individuals expected of the care provided, we used a series of proxies that we anticipated, based on previous studies, to be related to their expectations.<sup>8,32</sup> These proxies include sex, age, educational attainment and GDP. Variation in these variables captures differences in expectation. In particular, we found a positive association between age and satisfaction (Appendix A, model 2); individuals aged  $\geq 70$  years were more likely to be satisfied with the health system than individuals 18–29 years of age ( $P < 0.001$ ). We observed a weak but statistically significant association between education and satisfaction; people with some college education were less likely to be satisfied with the health system than people without a high school diploma ( $P < 0.01$ ). Our results also point to a positive association between satisfaction and GDP per capita ( $P < 0.001$ ).

### Self-perceived health status

Individuals who reported being in very bad, bad, moderate or good health were less likely to be satisfied with the health system than those who reported being in very good health ( $P < 0.001$ ).

Table 2. Predictors of patient satisfaction with the health system in 21 European Union countries, World Health Survey for 2003<sup>25</sup>

Predictor	OLS coefficient (SE) <sup>a</sup>
<b>Patient experience by responsiveness domains</b>	
Autonomy	0.11 (0.02) <sup>***</sup>
Choice	0.18 (0.04) <sup>***</sup>
Communication	0.08 (0.02) <sup>**</sup>
Confidentiality	0.12 (0.05)
Dignity	0.40 (0.12) <sup>***</sup>
Prompt attention	0.24 (0.03) <sup>***</sup>
Quality of basic amenities	0.61 (0.11) <sup>***</sup>
<b>Patient expectations</b>	
Formal education	
< 12 <sup>b</sup> years	
12 years	$-9.3 \times 10^{-4}$ (0.04)
> 12 and < 17 years	$-0.14$ (0.04) <sup>***</sup>
17 years	$2.8 \times 10^{-3}$ (0.04)
National attribute	
GDP per capita measured as PPP	$3.91 \times 10^{-5}$ (0.00) <sup>***</sup>
<b>Health status, self-reported</b>	
Very good <sup>b</sup>	
Good	$-0.15$ (0.04) <sup>***</sup>
Moderate	$-0.28$ (0.05) <sup>***</sup>
Bad	$-0.29$ (0.08) <sup>***</sup>
Very bad	$-0.53$ (0.14) <sup>***</sup>
<b>Type of care by provider type</b>	
Government <sup>b</sup>	
Privately operated	$-0.12$ (0.04) <sup>***</sup>
NGO	0.08 (0.10)
Other	0.06 (0.08)
<b>Personality, feelings of sadness</b>	
No <sup>b</sup>	
Yes	$-0.11$ (0.03) <sup>***</sup>
<b>Vignette score</b>	
Average	0.02 (0.02) <sup>*</sup>
Top percent	$2.2 \times 10^{-3}$ (0.00) <sup>***</sup>
Bottom percent	$-4.2 \times 10^{-3}$ (0.00) <sup>**</sup>
<b>Coverage (immunization)</b>	
	$-0.1$ (0.00) <sup>***</sup>
<b>Constant<sup>c</sup></b>	2.03 (0.29) <sup>***</sup>
<b>R<sup>2</sup></b>	17.5
<b>n</b>	16 384

\* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .

GDP, gross domestic product; NGO, nongovernmental organization; OLS, ordinary least squares; PPP, purchasing power parity;  $R^2$ , proportion of the variation in satisfaction accounted for in the model; SE, standard error.

<sup>a</sup> The full model is in Appendix A (available at: <http://healthmetricsandevaluation.org/resources/pubs.html>).

<sup>b</sup> Reference category.

<sup>c</sup> The constant is the intercept term.

Data from the World Health Survey for 2003.<sup>25</sup>

### Type of care

Several covariates were used to represent the type of care received. People who had been inpatients had higher levels of satisfaction than those who had been outpatients ( $P < 0.01$ ) (Appendix A, model 4). Individuals who received care from a private health-care facility

were less likely to report high levels of satisfaction than those receiving care from a public provider ( $P < 0.001$ ). We observed significant differences in satisfaction as a function of the reason for care. For example, individuals who had minor surgery or who were treated for heart disease were more likely to report

high levels of satisfaction than those who received care for severe diarrhoea ( $P < 0.01$  and  $P < 0.001$ , respectively).

### Personality

We found a negative relationship between personality (proxied by negative attitude) and satisfaction with the health system ( $P < 0.001$ ).

### Vignette scores

Each of the vignette measures included in the analysis was significantly associated with satisfaction. Higher average vignette scores ( $P < 0.05$ ) and a higher number of very positive responses ( $P < 0.001$ ) were positively associated with satisfaction, while lower vignette scores and a higher number of very negative responses were negatively associated with satisfaction.

### Coverage

Immunization coverage was negatively associated with patient satisfaction with the health-care system ( $P < 0.001$ ).

All these determinants combined, which was mostly explained by patient experience and patient expectation, explained 17.5% of the variation in satisfaction with the health-care system.

## Discussion

This study explored the relationship between patient experience (as represented by “responsiveness”) and people’s satisfaction with the health-care system. Using the literature as a guide, we also explored other factors beyond patient experience that might influence people’s satisfaction with the health-care system.

Most survey respondents reported being fairly satisfied or very satisfied with the health-care system in their country. However, the degree of reported satisfaction varied widely across countries with similar health outcomes.<sup>26</sup> Differences in health-care financing and delivery cannot explain a large portion of the difference in satisfaction ratings among countries. Austria and Spain, for example, have systems that are universally accessible, publicly financed through taxes, and characterized by hospitals with salaried physicians,<sup>43,44</sup> yet only 10.8% of Spaniards claimed to be very satisfied, compared with 70.4% of Austrians. Selected descriptions of health expenditure for

countries of the Organisation for Economic Cooperation and Development can be found in Appendix C (available at: <http://healthmetricsandevaluation.org/resources/pubs.html>).

Our study of the relationship between satisfaction with the health-care system and patient experience revealed that the latter is an important determinant of degree of satisfaction and that it explains about 10% of its variation. However, most of the variation is explained by factors that are unrelated to patient experience. We identified some of these factors as being: patient expectations (proxied by age and education), self-reported health status, and personality (crudely proxied by a measure of sadness).<sup>8,32,39,42</sup>

Some of our findings after adjustment for patient experience were surprising. We found higher satisfaction among individuals with higher income per capita, lower satisfaction among people receiving care from private providers, higher satisfaction among individuals receiving inpatient rather than outpatient care, and lower satisfaction among inhabitants of countries with higher immunization coverage. Holding everything else equal, one might have expected higher income societies to have higher expectations and thus a negative coefficient of satisfaction, after adjustment for patient experience. We also found a positive association between satisfaction and GDP, which suggests that national income per capita may be correlated not just with higher expectations for care, but also with a broader national outlook, such as public perception of the government or public confidence in economic prospects.<sup>23</sup> Because expectations were crudely modelled in our study, our finding of differences in satisfaction depending on provider type could be explained one of two ways: Individuals who use private providers either expect better care because it is privately delivered or they may expect better care because private care typically costs more than public care.

It is noteworthy that all the covariates combined explained only 17.5% of the observed variation in satisfaction with the health-care system, a finding that resembles that of a recent study on the determinants of satisfaction in developing countries.<sup>45</sup> We do not believe that this result is due to high random measurement error. We

attribute it, instead, to a sizable gap in our understanding of the factors determining people’s satisfaction with the health-care system.

### Other determinants

What, then, might individual reports of satisfaction with the health system be capturing? Comparable data are not available to directly measure the association between satisfaction and broader societal factors. However, based on the results of previous research, we strongly believe that factors like the portrayal of the health-care system by the media, the discussion of the system by political leaders, or even national events, such as war or the performance of national football teams, may be partly responsible for the remaining variation in satisfaction with the health-care system.<sup>23</sup> Whether portrayals of the health-care system in newspapers or the popular press, for example, influence how patients perceive the health systems cannot be determined with our data, yet the media’s influence on citizens’ views may be supported by several of our findings. For example, our finding that greater satisfaction is associated with a higher GDP per capita suggests that additional spending on health care is purchasing greater satisfaction possibly through increased access to technologies or more sophisticated health-care facilities. However, we believe that media dissemination of strong national health indicators may make people feel more satisfied with their health systems, irrespective of their personal experience of care. This would explain why, in our exploratory analyses (not shown), people without prior contact with the health-care system reported low levels of satisfaction, and why country characteristics were significantly associated with satisfaction levels. Our hypothesis that external factors influence satisfaction with the health-care system is also supported by our finding that those who reported feelings of sadness expressed lower satisfaction, an indication that the latter is partially mediated by an individual’s general attitude.

Another possibility is that patient experience and satisfaction with the health-care system do reflect precisely what each intends to capture, but that they are only marginally related. Evidence that these two concepts may not

overlap comes from a 5-country study in which most citizens reported significant problems with the health system as a whole but also high satisfaction with their own personal care.<sup>46</sup> While minimal overlap between the concepts of patient experience and satisfaction with the health-care system may account for some of the unexplained variation in satisfaction, it is unlikely that it fully explains our results. Rather, the wide range of satisfaction levels across health systems with comparable structures and resources included in this study suggests that factors above and beyond patient experience are primarily responsible for the unexplained variation in satisfaction with the health care system.

A third possibility is that some of the remaining variation in satisfaction with the health-care system can be explained by patient expectations. Although we did include some proxies for patient expectation, our data did not allow us to fully adjust for the concept in the models.

## Conclusion

### Study limitations

This study has several limitations. We would have liked to provide a measure of people's knowledge about their health-care systems to clarify some of the unexplained variation in their level of satisfaction, but such a measure was

not available. To partially compensate for this limitation, we included educational level as a variable. Because our data did not allow for directly quantifying the explanatory power of broader societal factors with regard to people's satisfaction with the health-care system, it is impossible to know to what degree such factors explain the variation observed. As with any cross-country survey analysis, the comparability of the findings depends on the quality of the translation and cultural adaptation of the survey instrument. We had to use proxy measures for patient expectations; better measures of patient expectations, when developed, may explain more of the observed variation in individual satisfaction with the health-care system. Our reliance on self-reports from respondents speaking for themselves or their children may have introduced recall and surrogate bias, respectively. Finally, some of our predictors of people's satisfaction with the health-care system came from studies of patient satisfaction with health services. Any differences in their respective determinants may have rendered our models imprecise.

### Implications for future research and policy

More research is needed to understand the determinants of satisfaction with the health-care system, particularly the broader societal factors we could not ex-

plore in this analysis. Information may be obtained by interviewing patients as they exit their health-care provider's office, by visiting patients in their homes soon after they interact with the health-care system, or by conducting a survey of representative households like the one in this study. No single approach is ideal, but their combined results may prove most useful for advancing the knowledge base surrounding satisfaction with the health-care system.

Cost and efficiency concerns and rising consumerism will probably lead to increased use of satisfaction surveys in the future. At present we understand little about people's satisfaction with the health-care system. If factors external to the system, rather than measurement error, account for the unexplained variation in health system satisfaction we found in our study, key stakeholders face a great challenge in using satisfaction surveys to inform quality improvement and reform efforts. However, our findings clearly show that measuring the degree of satisfaction with the health-care system may not be the most appropriate approach for informing quality improvement or health reform, contrary to the contents of the literature. ■

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## Résumé

### Quel lien existe-t-il entre la satisfaction à l'égard du système de santé et l'expérience des soins vécue par les patients ?

**Objectif** Etudier ce qui détermine la satisfaction des individus à l'égard du système de santé au-delà de leur expérience en tant que patients.

**Méthodes** Les données sur l'aptitude du système de santé à répondre aux attentes, qui portent sur les conditions et l'environnement dans lesquels sont traités les patients lorsqu'ils sollicitent des soins, fournissent une occasion unique de mieux comprendre les déterminants de la satisfaction des individus à l'égard de ce système et dans quelle mesure cette satisfaction est influencée par leur expérience en tant que patients. Ces données ont été obtenues auprès de 21 pays de l'Union européenne dans le cadre de l'Enquête sur la santé dans le monde de 2003. Des modèles de régression multiple additifs (méthode des moindres carrés ordinaires) ont été utilisés pour évaluer dans quelle mesure des variables couramment associées à la satisfaction à l'égard du système de santé d'après les indications de la littérature peuvent expliquer la variation autour du concept de satisfaction. Une analyse des résidus a servi à identifier d'autres facteurs prédictifs de la satisfaction à l'égard du système de santé.

**Résultats** Il existait une association significative entre l'expérience des patients et la satisfaction à l'égard du système de santé, qui expliquait 10,4 % de la variation autour du concept de satisfaction. D'autres facteurs tels que les attentes des patients, l'état de santé, le type de soins et la couverture vaccinale, présentaient également une valeur prédictive importante pour la satisfaction à l'égard du système, même si globalement, ils n'expliquaient que 17,5 % de la variation observée, tandis que des facteurs sociétaux plus larges pouvaient amplement rendre compte de la fraction inexpliquée de cette satisfaction.

**Conclusion** Contrairement à ce qu'indiquent les rapports publiés, la satisfaction des personnes à l'égard du système de santé dépend plus de facteurs externes à ce système que de l'expérience vécue par ces personnes en tant que patients. La mesure de cette satisfaction devrait donc être d'une utilité limitée comme base pour améliorer la qualité et réformer le système de santé.

**Resumen****Relación entre la satisfacción con el sistema de atención sanitaria y la experiencia personal de los pacientes**

**Objetivo** Estudiar qué factores determinan la satisfacción de las personas con el sistema de atención de salud por encima de su experiencia como pacientes.

**Métodos** Los datos sobre la responsividad de los sistemas de salud, entendiéndose por tal la manera y el entorno en que se trata a las personas cuando buscan atención de salud, son una valiosa herramienta para conocer más a fondo los determinantes de la satisfacción de las personas con el sistema de atención de salud y la medida en que esa percepción se ve influida por la experiencia de cada cual como paciente. Los datos utilizados proceden de la información sobre 21 países de la Unión Europea recogida en la Encuesta Mundial de Salud 2003. Se utilizaron modelos de regresión de mínimos cuadrados ordinarios aditivos para determinar el grado de explicación de la variación del nivel de satisfacción atribuible a algunas variables que según la bibliografía al respecto aparecen asociadas generalmente a ese concepto. Mediante análisis residual se identificaron otros factores predictivos de la satisfacción con el sistema de atención de salud.

**Resultados** La experiencia de los pacientes estaba relacionada de forma significativa con la satisfacción con el sistema de atención de salud y explicaba el 10,4% de la variación de la satisfacción. Otros factores, como las expectativas de los pacientes, su estado de salud, el tipo de atención y la cobertura de inmunización, también se revelaron como factores predictivos relevantes de la satisfacción con el sistema de salud; sin embargo, globalmente explicaban sólo un 17,5% de la variación observada, lo que lleva a pensar que hay otros factores sociales más generales que determinarían en gran medida el componente no explicado de la variación de la satisfacción con el sistema de atención de salud.

**Conclusión** Contrariamente a lo señalado en algunas publicaciones, la satisfacción de la población con el sistema sanitario depende más de factores externos al sistema de salud que de la experiencia vivida por cada persona como paciente. Así pues, la medición de esta última tendría una utilidad limitada como base para mejorar la calidad de la atención y reformar el sistema sanitario.

**ملخص****ما مدى ارتباط الرضا عن نظام الرعاية الصحية بتجربة المرضى؟**

**الهدف:** استكشاف العوامل الأخرى بخلاف تجربة المرضى، والتي تؤثر على رضا الناس عن نظام الرعاية الصحية.

**الطريقة:** تقدّم المعطيات حول استجابة النظام الصحي، والتي تشير إلى السلوكيات والبيئة التي يعالج بها الناس عند التماسهم للرعاية الصحية، فرصة فريدة للحصول على فهم أفضل لمحددات رضا الناس عن نظام الرعاية الصحية ومدى تأثر ذلك بتجربة الأفراد كمرضى. وقد جمعت المعطيات من 21 بلداً من الاتحاد الأوروبي ضمن المسح العالمي حول الصحة لعام 2003. وقد استخدمت نماذج تحوف أقل المربعات الإضافية المعتادة لدينا لتقييم المدى الذي يتوافق عادةً بمتغيرات حول الرضا بنظام الرعاية الصحية؛ كما هو مسجل في النشريات، ليفسر التباين في مفهوم الرضا. واستخدم تحليل ثنائي للتعرف على المنبئات الأخرى للرضا بنظام الرعاية الصحية.

**الموجودات:** لقد ترافقت تجربة المرضى، وبدرجة يُعتد بها إحصائياً، بالرضا عن نظام الرعاية الصحية، وقد فسر ذلك 10.4% من التفاوت حول مفهوم الرضا. وقد كانت العوامل الأخرى مثل توقعات المرضى، وحالتهم الصحية، ومط الرعاية، والتغطية بالتمنيع منبئات أخرى ذات أهمية يُعتد بها في قياس الرضا عن النظام الصحي، رغم أنها لم تفسر أكثر من 17.5% من التباين الملاحظ، أما العوامل الاجتماعية الأوسع نطاقاً فقد تكون مسؤولة إلى مدى كبير عن الجزء غير المفسر من الرضا عن نظام الرعاية الصحية.

**الاستنتاج:** على العكس من التقارير المنشورة، فإن رضا الناس عن نظام الرعاية الصحية يعتمد على عوامل خارج النظام الصحي أكثر مما يعتمد على معاناة المرضى من الرعاية. ومن هنا، فإن قياس معاناة المريض قد تكون محدودة الفائدة كأساس لتحسين الجودة ولإصلاح النظام الصحي.

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