

Data Report

 (\mathbf{i})

Patient-centered medicine: What do patients want?

Jurgen Willems¹, Schifteh Dohr-Hashemi¹, & Ali I. Ozkes¹

¹ WU Vienna University of Economics and Business, Department of Management, Institute for Public Management & Governance

Abstract

In this data report, we provide insight into Austrian public opinion on criteria that are considered important in interactions with hospitals and doctors. Data was collected in a sample of 2,800 respondents, between January and June 2025. The most important criteria are: (1) *Clean health care service environment*, (2) *Professional interactions with health care professionals*, and (3) *Clear and sufficient information*. We observe differences based on demographics such as age, gender, occupation, educational level, and migration background. However, differences remain approximately within one scale point on a 9-point survey scale. Public Management and Governance Review (ISSN: 2960-592X) is an Open Access journal. Copyright for articles is held by the authors. Find this and other articles at: <u>pmgr.wu.ac.at</u>



Key words

Patient-centered medicine, public opinion, public management, public governance, health care services, perceived quality, health care management

Extra information and acknowledgements

Data can be downloaded here: <u>https://osf.io/m7jsu/</u>. The figures can be downloaded here (in English and German): <u>https://doi.org/10.6084/m9.figshare.29517263</u>.

The data and figures are available *Open Access*. Reference to this data report is mandatory when further data analyses are done and reported in other outlets, and/or when figures of this report are reused.

We thank Joschka Sammer for his assistance in a complementary literature review on patient expectations.

What do patients want?

Health care services are continuously optimized to enhance patient outcomes and to improve overall care experience for both patients and their support networks. Multiple stakeholders are involved in this continuous optimization process, in which hospitals, outpatient services, and their respective medical staff are the key service providers. They are on the front lines of delivering high-quality services that are complex and multifaceted. The quality of these services



is not only determined by tangible improvements in personal health, but also in the direct experience before, during, and after service provision for patients and the people around them.

For example, good and clear communication, efficient administrative processes, and affordability are important aspects that also influence good health care service delivery.

Therefore, hospital administrators and managers, as well as health care policy makers are important supporting stakeholders in this healthcare eco-system. Additionally, care and life sciences researchers, as well as developers of new medicine, medical devices, approaches, and treatments, support with their novel insights in this optimization process.

Against this background, this study reports on a data collection that took place in Austria from January to June 2025. After deriving 17 health care service criteria from scientific literature, expert interviews, and focus panels, we integrated these 17 items as an online survey construct in a larger data collection. The goal of this data report is to provide an insight into how citizens score the importance of these 17 quality criteria when interacting with (1) hospitals or (2) doctors. While the data report is descriptive and straightforward, it provides a reference framework for teaching, coaching, and decision making on management and policy challenges in the Austrian heath care eco-system.

Quality criteria in health care provision

Patient-centered medicine

This data report is part of an initiative on Patient-Centered-Medicine. Challenges as well as opportunities in health services are led by rapidly changing needs and preferences of patients. Guided by the principle of Patient-Centered-Medicine, various stakeholders in this public governance eco-system can coordinate and direct their efforts towards effective health solutions. This includes key stakeholders such as various types of health care professionals (doctors, nurses, therapists, pharmacists, etc.). This also includes supporting stakeholders such as hospital managers and administrators, life science researchers, (small and big) pharmaceutical companies, policy makers, and social science researchers.

For research, we refer to our overview of **Finished and ongoing studies.**

For teaching, we refer to the WU Executive MBA programs on:

- <u>Life Science and Healthcare Management</u> (English program, international and crosssector focus)
- <u>Healthcare Management</u> (German program, DACH region, and healthcare sector focus)

Various factors determine the (perceived) quality of health care provision. Some of them regard direct health-related outcomes, while others regard (supporting) processes in terms of service delivery. An important direct factor, for instance, is effective treatment, which is related to trust in professionality [1], [2], [3]. Cleanness, hygiene, and safety of the heath service environment are recurrent conditions crucial for quality perception in health care services [1], [3], [4], [5]. Other direct factors relate to personal interactions with health care professionals [1], [6], [7], as well as immediate psychological and emotional support [1], [8], [9], [10], [11].

Additional supporting factors are, among others, quality and clarity of communication [1], [4], [5], [7], [9], [10], [12], [13], [14], patient and family involvement in treatment decisions [1], [7], [10], [12], service efficiency [3], [4], [14], [15], and affordability [6], [8].

Overall results

Respondents were randomly split into two groups. One group was asked to remember the last time they visited a hospital, while the other group was instructed to remember the last time they visited a doctor. We specified that all situations could be considered whether they were either a patient themselves or accompanying a patient.



For both groups, we asked to rate the extent that each of 17 quality criteria for healthcare provision were important to them. They could rate this on a 9-point scale from -4 to +4, with verbal labels marking the scale ends: *Not at all important* (-4) and *Very important* (+4).

Figure 1 reports the overall descriptive results for the overall sample. The 17 items are ranked—from top to bottom—based on the average score of each item. In what follows we number the items based on this ranking.

It is visible from the means per item that all items are considered important, as they are all at the right side of the scale. The criterion that is considered most important is (1) *Being in a clean environment* (2.56).

This is followed by items that focus on how the interaction with the healthcare professional takes place: (2) *Being treated professionally* (2.52), (3) *Being treated in a friendly manner* (2.46), and (4) *The feeling of being listened to by the doctor* (2.35).

Subsequently, several items indicate the importance of communication and the opportunity to receive relevant information: (5) *The opportunity to ask several questions* (2.32), (6) *Information about what to do after treatment* (2.32), and (7) *Obtaining detailed information about illness or state of health* (2.32).

At the lower end of the ranking, the criteria that are considered least important include: (15) *Information about and contact details of other medical professionals you can turn to* (1.81), (16) *Short waiting times* (1.54), and (17) *Assistance with administrative procedures (e.g. preparing and sending insurance documents or for further treatment)* (1.43). It is notable that short waiting times are rated relatively low, despite often being a very central topic of health policy discussion in the context of healthcare service delivery [16].

Figure 1: Items ranked from top to bottom based on average item score for the total sample

	Not at all		When you think about your last experience [A: in a hospital /B: with a doctor], what factors do you think are important for a good experience [A: in a hospital /B: with a doctor]?						
	important (-4)	(-3)	(-2)	(-1)	(0)	(+1)	(+2)	(+3)	important (+4)
Being in a clean environment								2.56 Hel	
Being treated professionally		Observations: n = 2802				2,52 1+1 2,46 1+1 2,35 1+1			
Being treated in a friendly manner									
The feeling of being listened to by the doctor									
The opportunity to ask several questions -							2.32		
Information about what to do after treatment						2.32 +++ 2.32			
Obtaining detailed information about illness or state of health -									
Being treated with empathy						2.19 ++			
Receiving clear instructions for follow-up appointments -						2.19			
Receiving information in my native language						1.97 Hel			
Being in a quiet environment						1.93			
Receiving recommendations to prevent illness in the future						1.92			
Low or no costs for treatment or consultation -							1.91		
Receiving information from someone who speaks perfect German							1.9		
Information about and contact details of other medical professionals you can turn to							1.81 ++		
Short waiting times						1.54			
Assistance with administrative procedures (e.g. preparing and sending insurance documents or for further treatment)	ļ					1.43			

A



Further analysis on whether people visited a hospital or a doctor does not suggest substantial differences in (relative) importance of quality criteria. This is shown in Figure 2, where for both groups the lines hardly differ.

Figure 2: Context of healthcare provision does not indicate different perceived importance of quality criteria.



In contrast, differences are consistently visible based on the role in which people visit a hospital or doctor, i.e. whether people visit the doctor or hospital as (1) patient or (2) accompanying a patient. This is shown in Figure 3. Concretely, the relative importance of items is the same (as the forms of the lines do not differ substantially, except for the bottom-four items), but the items are consistently scored higher by patients compared to companions of patients.

Results explained based on demographic categories

Further graphs report differences based on demographic variables, at least for those respondents that answered these questions (or did not answer *Other* or *Not applicable*).

Figure 4 shows that the older the respondents are, the more important they consider the criteria. This is also visible in Figure 7 where students assign on average lower importance to any criterion, compared to retired respondents.

Women score all criteria as more important compared to men (Figure 5), and level of education also reveals some differences, mainly for the criteria that are on average considered most important (Figure 6). For education, the graph reports the German naming for education levels (as they are more broadly and commonly used). For clarity, the translations are: (1) Compulsory education, (2) Apprenticeship, Vocational School, (3) Intermediate Vocational Schools, (4) University entrance education, and (5) Higher education (University, University of Applied Sciences, University College of Teacher Education).





Figure 3: As a patient, compared to a patient companion, all criteria are considered more important.

Figure 4: Older people consider all criteria more important.







Figure 5: Women consider all criterial more important, compared to men.

Figure 6: Differences for educational levels, strongest for the most important criteria.







Figure 7: Differences for occupation, likely related to age effects.

Figure 8: Differences based on migration background.





Respondents with a migration background (first, second and third generation migrants) indicate considering all criteria as less important, compared to people without a migration background (Figure 8). In particular, the criterion (10) *Receiving information in my native language* is substantially less important compared to other criteria for respondents with a migration background.

In the Appendix, we provide further figures in relation to political affiliation and gender.

Summary of the dataset and data collection considerations

The survey construct was developed by identifying quality criteria from (1) existing scientific and practice-oriented studies, (2) multiple consultations with health care professionals in Austria and abroad, and (3) three focus panels with citizens/patients. We selected 17 items to cover a broad range of topics, and we decided to probe for respondents' opinions with a 9-point scale with numerical labels ranging from -4 to +4. The extreme scale options were also labeled with verbatim labels: *Not at all important* (-4) and *Very important* (+4).

Data was collected with assistance from a professional panel provider. The survey questions for this report have been added to a larger data collection dealing with various topics studied at the Institute for Public Management and Governance, at the Vienna University of Economics and Business.

Data was collected from 06.01.2025 (6 January 2025) until 05.06.2025 (5 June 2025). The panel provider was instructed to recruit a sample representative of *gender per age group*, and per *Bundesland* (administrative states of Austria). Older age categories are slightly underrepresented. Hence, as we only used age, gender, and region as sampling criteria, not all variables for which group differences are reported in this data report (such as education levels) have been tested for full representativeness.

In the same data collection, we also asked the question "In your opinion, what are the biggest challenges in the healthcare sector in Austria over the next three years?" ("Was sind Ihrer Meinung nach die größten Herausforderungen im Gesundheitswesen in Österreich in den nächsten drei Jahren?"). However, respondents who answered the questions included in this data report—*i.e.*, on health care service expectations—did not receive the questions on sector challenges, and vice versa. We randomly assigned the respondents to one of these two subsections (*i.e.*, (1) quality criteria and (2) challenges). In addition, the order of the items was also randomized, to avoid order effects in responses.

Data can be downloaded here: <u>https://osf.io/m7jsu/</u>. The figures can be downloaded here (in English and German): <u>https://doi.org/10.6084/m9.figshare.29517263</u>

The data and figures are available *Open Access*. Reference to this data report is mandatory when further data analyses are done and reported in other outlets, and/or when figures of this report are reused.



Authors bios

Jurgen Willems is Professor for Public Management & Governance at the WU Vienna University of Economics and Business. He is also the Academic Director of two Executive MBA programs, focused on Life Sciences and Health Care Management at the WU Executive Academy. His teaching covers various management topics, including Organizational Behavior, Management & Digital Transformation, and Public and Nonprofit Governance. Jurgen Willems has been a visiting scholar at the University of Southern Denmark, the American University in Washington, l'Université de La Réunion, the University of Missouri, and the University of Texas at Austin. His research covers a variety of topics on citizen-state and citizen-society interactions.

ORCID: https://orcid.org/0000-0002-4439-3948

Schifteh Dohr-Hashemi is a Teaching and Research Associate and PhD candidate at the Institute for Public Management & Governance at the WU Vienna University of Economics and Business. Her research focuses on health care management and the governance of public health systems with a particular interest in the implementation of advanced technologies and artificial intelligence.

ORCID: https://orcid.org/0009-0009-3074-491X

Ali I. Ozkes is a Senior Researcher at the Institute for Public Management & Governance at the WU Vienna University of Economics and Business and SKEMA Business School. Having obtained his undergraduate degree from London School of Economics and Political Science, his Ph.D. degree from Ecole Polytechnique, and his habilitation from Paris 1 Panthéon-Sorbonne University, his research covers areas such as health care management, collective decision-making processes, research reproducibility, AI ethics, and behavioral economics. His works appeared in leading academic outlets in management, economics, and computer science, among others.

ORCID: <u>https://orcid.org/0000-0002-8720-2494</u>

Appendix

In this appendix, we report on two more aspects. First, we explore if there are any clear differences based on political affiliation. Second, we deliver an additional graph for gender, with the category *diverse* included too.

Feeling politically represented

Our survey also included six questions on whether respondents felt represented by different political parties in Austria. These questions were not mutually exclusive, meaning that for each of the six parties they could indicate the extent they felt represented by that party. Answer options were (-2) *Not at all*, (-1) *Only for a few elements*, (0) *Medium*, (+1) *For many elements*, (+2) *Completely*. Per party, each of these values were recoded with two categories, grouping (-2, -1, and 0) as *Does not feel represented by [name of party]* and grouping (+1 and +2) as *Feels represented by [name of party]*.

Overall, differences are minimal, suggesting that political affiliation does not substantially relate to the perceived importance of quality criteria in health care services.



Figure 9a: Feels represented by SPÖ.



Figure 9b: Feels represented by ÖVP.





Figure 9c: Feels represented by FPÖ.



Figure 9d: Feels represented by Die Grünen.





Figure 9e: Feels represented by NEOS.



Figure 9f: Feels represented by KPÖ.





Additional figure on gender

The gender question included also the "Diverse" option, which is excluded in the main text. Figure 10 depicts gender data together with this option, although the responses have wide confidence intervals due to the relatively small number of respondents.





References

- [1] C. Doyle, L. Lennox, and D. Bell, "A systematic review of evidence on the links between patient experience and clinical safety and effectiveness," *BMJ Open*, vol. 3, no. 1, p. e001570, 2013, doi: 10.1136/bmjopen-2012-001570.
- [2] H. P. Gross, S. Ingerfurth, and J. Willems, "Employees as reputation advocates: Dimensions of employee job satisfaction explaining employees' recommendation intention," *Journal of Business Research*, vol. 134, pp. 405–413, Sep. 2021, doi: 10.1016/j.jbusres.2021.05.021.
- [3] C. Adams, R. Walpola, M. P. Iqbal, A. Schembri, and R. Harrison, "The three pillars of patient experience: identifying key drivers of patient experience to improve quality in healthcare," *J Public Health (Berl.)*, Jan. 2024, doi: 10.1007/s10389-023-02158-y.
- [4] J. Willems and S. Ingerfurth, "The quality perception gap between employees and patients in hospitals," *Health Care Manage Rev*, vol. 43, no. 2, pp. 157–167, Apr. 2018, doi: 10.1097/HMR.00000000000137.
- [5] P. H. Guler, "Patient Experience: A Critical Indicator of Healthcare Performance," *Frontiers of Health Services Management*, vol. 33, no. 3, pp. 17–29, Apr. 2017, doi: 10.1097/HAP.00000000000003.



- [6] Y. Lin *et al.*, "Assessing Patient Experience and Healthcare Quality of Dental Care Using Patient Online Reviews in the United States: Mixed Methods Study," *J Med Internet Res*, vol. 22, no. 7, p. e18652, Jul. 2020, doi: 10.2196/18652.
- [7] E. Burnett, K. Lee, R. Rushmer, M. Ellis, M. Noble, and P. Davey, "Healthcare-associated infection and the patient experience: a qualitative study using patient interviews," *Journal of Hospital Infection*, vol. 74, no. 1, pp. 42–47, Jan. 2010, doi: 10.1016/j.jhin.2009.07.027.
- [8] C. D. Foo *et al.*, "Exploring the dimensions of patient experience for community-based care programmes in a multi-ethnic Asian context," *PLoS ONE*, vol. 15, no. 11, p. e0242610, Nov. 2020, doi: 10.1371/journal.pone.0242610.
- [9] S. Steine, A. Finset, and E. Laerum, "A new, brief questionnaire (PEQ) developed in primary health care for measuring patients' experience of interaction, emotion and consultation outcome," *Family Practice*, vol. 18, no. 4, pp. 410–418, Aug. 2001, doi: 10.1093/fampra/18.4.410.
- [10] F. Rapport *et al.*, "What do patients really want? An in-depth examination of patient experience in four Australian hospitals," *BMC Health Serv Res*, vol. 19, no. 1, p. 38, Dec. 2019, doi: 10.1186/s12913-019-3881-z.
- [11] C. Jenkinson, "The Picker Patient Experience Questionnaire: development and validation using data from in-patient surveys in five countries," *International Journal for Quality in Health Care*, vol. 14, no. 5, pp. 353–358, Oct. 2002, doi: 10.1093/intqhc/14.5.353.
- [12] L. Zinckernagel *et al.*, "How to measure experiences of healthcare quality in Denmark among patients with heart disease? The development and psychometric evaluation of a patient-reported instrument," *BMJ Open*, vol. 7, no. 10, p. e016234, Oct. 2017, doi: 10.1136/bmjopen-2017-016234.
- [13] E. Davies *et al.*, "Evaluating the use of a modified CAHPS® survey to support improvements in patient-centred care: lessons from a quality improvement collaborative," *Health Expectations*, vol. 11, no. 2, pp. 160–176, Jun. 2008, doi: 10.1111/j.1369-7625.2007.00483.x.
- [14] G. Hu *et al.*, "Patient experience of hospital care in China: major findings from the Chinese Patient Experience Questionnaire Survey (2016–2018)," *BMJ Open*, vol. 9, no. 9, p. e031615, Sep. 2019, doi: 10.1136/bmjopen-2019-031615.
- [15] L. Alkire (Née Nasr), G. E. O'Connor, S. Myrden, and S. Köcher, "Patient experience in the digital age: An investigation into the effect of generational cohorts," *Journal of Retailing and Consumer Services*, vol. 57, p. 102221, Nov. 2020, doi: 10.1016/j.jretconser.2020.102221.
- [16] L. Siciliani, V. Moran, and M. Borowitz, "Measuring and comparing health care waiting times in OECD countries," *Health Policy*, vol. 118, no. 3, pp. 292–303, Dec. 2014, doi: 10.1016/j.healthpol.2014.08.011.