

ORIGINAL

The assessment of the quality of primary care using the SERVQUAL scale: A cross-sectional study in Morocco

*La evaluación de la calidad de la atención primaria mediante la escala SERVQUAL:
Un estudio transversal en Marruecos*

Hicham El Mouaddib^{1,2} , Majda Sebbani^{1,3,4,5} , Latifa Adarmouch^{1,3,4} ,
Mohamed Amine^{1,3,4} 

1. Biosciences & Health Laboratory, Cadi Ayyad University, Marrakech, Morocco.

2. Higher Institute of the Nursing Professions and Techniques of Health (ISPITS), Marrakech, Morocco.

3. Clinical Research Unit, Mohammed VI University Hospital, Marrakech, Morocco.

4. Community Medicine and Public Health Department, Faculty of Medicine and Pharmacy, Cadi Ayyad University, Marrakech, Morocco.

5. Unit of Development and Research in Medical Education, Geneva University, Switzerland

Corresponding author

Hicham El Mouaddib

E-mail: h.elmouaddib.ced@uca.ac.ma

Received: 30 - XII - 2023

Accepted: 22 - I - 2024

doi: 10.3306/AJHS.2024.39.03.87

Abstract

Objectives: The quality of healthcare is essential for an optimal level of patient satisfaction. The present study aimed to assess the quality of services in primary healthcare centers in Marrakech, Morocco.

Methods: We conducted a cross-sectional study from June 2021 to January 2022. The SERVQUAL scale was used in a survey involving patients recruited in community health centers in Marrakech. The data collected were entered and analyzed using Jamovi 1.6. Statistical analyses included descriptive and bivariate analyses ($p < 0.05$).

Findings: Out of a total of 624 participants, 64.6% were women, and 75% were affiliated with an urban community health center. The gaps between perceptions and expectations of quality were negative for tangibles (-2.52), reliability (-2.48), and assurance (-2.40), respectively. Except for six items related to reliability and empathy, most items exhibited negative quality gaps. Significant associations were found between the community health center location and all dimensions, between the reference history for specialized consultation and the perception of assurance, and finally, between financial difficulty in seeking care and the perception of tangibles ($p < 0.05$).

Conclusions: The present study showed that tangibles, reliability, and assurance had the most negative gaps. These results suggest that patients had higher expectations than their perceptions.

Key words: Quality of health care, primary care, SERVQUAL, patient satisfaction, community health centers.

Resumen

Objetivos: La calidad de la asistencia sanitaria es fundamental para un nivel óptimo de satisfacción del paciente. El presente estudio tuvo como objetivo evaluar la calidad de los servicios en los centros de atención primaria de salud en Marrakech, Marruecos.

Métodos: Realizamos un estudio transversal desde junio de 2021 hasta enero de 2022. Se utilizó la escala SERVQUAL en una encuesta en la que participaron pacientes reclutados en centros de salud comunitarios de Marrakech. Los datos recopilados se ingresaron y analizaron utilizando Jamovi 1.6. Los análisis estadísticos incluyeron análisis descriptivos y bivariados ($p < 0,05$).

Resultados: De un total de 624 participantes, el 64,6% eran mujeres y el 75% estaban afiliados a un centro de salud comunitario urbano. Las brechas entre percepciones y expectativas de calidad fueron negativas para los tangibles (-2,52), la confiabilidad (-2,48) y la garantía (-2,40), respectivamente. Excepto seis ítems relacionados con la confiabilidad y la empatía, la mayoría de los ítems exhibieron brechas de calidad negativas. Se encontraron asociaciones significativas entre la ubicación del centro de salud comunitario y todas las dimensiones, entre el historial de referencia para consulta especializada y la percepción de seguridad y, finalmente, entre la dificultad financiera para buscar atención y la percepción de bienes tangibles ($p < 0,05$).

Conclusiones: El presente estudio mostró que los tangibles, la confiabilidad y la seguridad tenían las brechas más negativas. Estos resultados sugieren que los pacientes tenían expectativas más altas que sus percepciones.

Palabras clave: Calidad de la atención en salud, atención primaria, SERVQUAL, satisfacción del paciente, centros de salud comunitarios.

Cite as: El Mouaddib H, Sebbani M, Adarmouch L, Amine M. The assessment of the quality of primary care using the SERVQUAL scale: A cross-sectional study in Morocco. *Academic Journal of Health Sciences* 2024; 39 (3):87-92 doi: 10.3306/AJHS.2024.39.03.87

Introduction

Primary care entails a holistic approach, considering both the biomedical aspects of the condition and the individual as a whole. Achieving this comprehensive approach requires surmounting two educational challenges for healthcare providers. Firstly, there is a need to enhance their communication abilities. Secondly, it is essential to bolster their capacity to provide patient-centered care¹.

In this context, healthcare professionals with a high degree of empathy have a positive effect on patient satisfaction². Additionally, it is recognized that patients' trust in the services they receive is an essential component of perceived quality³. Better communication is associated with higher scores, whereas the technical quality of care is not significantly associated with the overall assessment of care⁴. However, clinical quality is paramount to patient outcomes. However, service quality perceptions - only sometimes directly related to actual quality - are more likely to be the primary cause of their utilization^{4,5}.

As a result, the quality of health care is primarily derived from the individual's perceptions. Indeed, patients' perceptions of the quality of care are shaped by collective and traditional beliefs as well as the influence of peers⁶. For instance, despite the expansion of healthcare coverage, rural women prefer to have children at home instead of visiting a maternity center nearby^{7,8}. In Bangladesh, women believe that the quality of care in urban and peri-urban facilities is superior to that in local facilities⁷. Conversely, in Morocco, women prefer to give birth at home due to cultural traditions and financial concerns. They know that a transfer to a hospital maternity ward would incur additional expenses for the family⁸. As a result, health systems must not only enhance the actual quality of health care provided but also attempt to bridge the discrepancy between perceived quality and actual quality⁶.

In fact, the quality of healthcare can determine patient satisfaction. Within the literature, technical and functional aspects are acknowledged as essential components of health care⁹⁻¹³. Moreover, it has been documented that patients generally cannot differentiate between functional quality and technical quality¹⁴.

To evaluate perceived quality, there are multiple scales available, with the most common being SERVQUAL, developed by Parasuraman *et al.* (1985). SERVQUAL is designed to assess functional quality, not technical quality¹⁶. Each collection of items impacts the relative importance of five dimensions to patients: tangibility, reliability, responsiveness, assurance, and empathy¹⁷.

These five aspects of service quality apply to service providers in general: (i) Tangibility, which concerns physical facilities, equipment, and personnel appearance; (ii) Reliability, which is the ability to perform the service

accurately and consistently; (iii) Responsiveness, which is the willingness to help customers and provide prompt service; (iv) Assurance, which is the knowledge, courtesy, and ability of employees to inspire confidence; and (v) Empathy, which is the provision of caring, individualized attention to patients^{9,12,17}.

SERVQUAL, a model used to assess the quality of primary care services in multiple countries such as Botswana¹⁸, Romania¹⁹, Greece²⁰, and India²¹, was applied in this study to evaluate the quality of primary care in Marrakech, Morocco.

Methods

Study design and population

We conducted a cross-sectional study in Marrakech. The sample size was determined using a population proportion formula, considering the total population of Marrakech²², a 95% confidence interval (CI), and a 5% error rate. The calculated minimum sample size was 600. Accounting for a 20% non-response rate, the final sample for the study totaled 624 participants. These participants were selected from 54 community health centers (CHC) in Marrakech, and eligible for the study were patients aged 18 years and older.

Data collection

Data collection was done from June 2021 to January 2022 using a questionnaire that contained two parts: (a) sociodemographic variables, such as CHC location, age, sex, education level, social insurance, purpose of visit, prior referral, and financial difficulty in seeking healthcare, and (b) SERVQUAL scale. Data were collected in Arabic dialect translation of the validated Arabic version of SERVQUAL by Al-Daoar & Munusamy (2019). The dialectal Arabic version was read and revised by a consensus committee.

SERVQUAL is a questionnaire of 44 questions that attempts to measure the gap between expectations and perceptions. The first set (the first 22 items) is concerned with customers' expectations, while the second set is concerned with their perceptions of utilizing these services. In SERVQUAL, responses to each question are recorded on a 7-point scale (1 = Strongly disagree; 2 = Disagree; 3 = Slightly disagree; 4 = Neutral; 5 = Slightly agree; 6 = Agree; 7 = Strongly agree). Mauri *et al.*²⁴ define service quality (SQ) as the gap between the patient's perception (P) and expectation (E), and it is calculated using the following formula: $SQ = (P - E)$.

Data analysis

The data were analyzed using Jamovi software (Version 1.6). Descriptive statistics were used to summarize participants' characteristics. A paired T-Test analysis ($P < 0.05$) of the gaps between perceptions and

expectations of quality was conducted for the dimensions and items of the SERVQUAL. The independent samples T-Test analysis ($P < 0.05$) was conducted to evaluate the association between participants' characteristics and SERVQUAL dimensions.

Ethics Considerations

Ethical approval was obtained from the Ethics Committee of the Marrakech Faculty of Medicine (Reference: 021/20). Informed consent was obtained from all participants, who were informed about the study's purpose, potential risks, and their right to withdraw at any time.

Findings

The mean age was 46.7 (± 16.4 years). Women represented 64.6% of the participants. Most participants (75%) were affiliated with an urban CHC. Furthermore, 29.5% of participants were illiterate, and 46.6% had RAMED coverage, a Medical Assistance Regime for economically disadvantaged persons. Regarding the purpose of the visit, 32.7% of participants came to the CHC for vaccination, 24.8% for chronic diseases, and 16.2% for general medical consultation. 69.9% of

participants had prior referrals from the health center for specialized consultation, while 72.1% reported a prior financial difficulty in seeking medical care (**Table I**).

Paired t-test analysis showed that the gaps between quality perception and expectation were negative for tangibles (-2.52), reliability (-2.48), and assurance (-2.40), respectively. However, they were, respectively, positive and close to zero for empathy (0.020) and responsiveness (0.34). Except for empathy, the differences in other dimensions were statistically significant ($P < 0.001$) (**Table II**).

Furthermore, the results of the same-item analysis showed that most of them had negative quality gaps, except for items related to reliability (1, 2, 3) and empathy (1, 3, 4). The three most unfavorable gaps were physical assets, i.e., equipment condition (-2.93), and reliability, i.e., service delivery on first contact (-2.93), and service delivery on time promised (-2.85). Statistically significant differences were found among participants' perceptions and expectations regarding various aspects of quality of service (**Table III**).

Table I: Sociodemographic characteristics of the participants (n=624).

Characteristics	Categories	N	%
Sex	Male	221	35.4
	Female	403	64.6
CHC Location [§]	Urban	468	75.0
	Rural	156	25.0
Education level	Illiterate	184	29.5
	Primary	89	14.3
	College	114	18.3
	High school level	94	15.1
	Baccalaureate	95	15.2
	University	48	7.7
Social insurance	Mutual Insurance	210	33.7
	Without Mutual Insurance	76	12.2
	RAMED [¶]	291	46.6
	Private Insurance	47	7.5
Purpose of visit	Vaccination	204	32.7
	Family planning	58	9.3
	Prenatal or Postnatal consultation	59	9.5
	Screening [‡]	47	7.5
	General consultation	101	16.2
	Consultation for chronic disease	155	24.8
Prior Referral	Yes	436	69.9
	No	188	30.1
Prior financial difficulty in seeking care	Yes	450	72.1
	No	174	27.9

[§]CHC: Community Health Center, [¶]RAMED: Medical Assistance Regime for economically disadvantaged persons, [‡]Screening concerns Human Immunodeficiency Virus, breast cancer, and cervical cancer.

Table II: Mean level of participants' perceptions, expectations, and service gaps in SERVQUAL Dimensions.

Dimensions	Perceptions	Expectations	Service gaps	Paired T-Test	
	Mean (SD)	Mean (SD)	Mean (SD)	t	p-value
Tangibles	3.44 (1.40)	5.96 (0.29)	-2.52 (1.43)	-44.13	<.001
Reliability	3.25 (1.33)	5.72 (0.31)	-2.48 (1.35)	-45.70	<.001
Responsiveness	3.42 (1.44)	3.08 (0.41)	0.34 (1.50)	5.64	<.001
Assurance	3.69 (1.49)	6.09 (0.32)	-2.40 (1.54)	-39.00	<.001
Empathy	3.27 (1.44)	3.25 (0.57)	0.02 (1.56)	0.32	0.747

SD: Standard Deviation.

Table III: Mean level of participants' perceptions, expectations, and service gaps in SERVQUAL items.

Items	Perceptions	Expectations	Service gaps	Paired T-Test	
	Mean (SD)	Mean (SD)	Mean (SD)	<i>t</i>	<i>p-value</i>
Tangibles					
1. Adequacy of equipment in health center	3.10 (1.58)	6.03 (0.28)	-2.93 (1.61)	-45.44	<.001
2. Cleanliness of CHC environment	3.19 (1.582)	5.98 (0.39)	-2.79 (1.64)	-42.55	<.001
3. Neat and professional appearance of CHC staff	4.05 (1.532)	5.86 (0.55)	-1.81 (1.60)	-28.17	<.001
4. Visual appealing and comfort of physical facilities	3.44 (1.562)	5.99 (0.23)	-2.55 (1.58)	-40.32	<.001
Reliability					
5. When health service is promised, it is done	3.19 (1.52)	6.04 (0.30)	-2.85 (1.54)	-46.02	<.001
6. Discipline of staff	3.30 (1.51)	6.10 (0.31)	-2.80 (1.53)	-45.85	<.001
7. Delivery of service right in the first time	3.11 (1.51)	6.04 (0.19)	-2.93 (1.52)	-48.10	<.001
8. Provision of health services at the time promised	3.29 (1.54)	4.33 (0.78)	-1.03 (1.70)	-15.14	<.001
9. Keeping patient/user records correctly without mistake	3.34 (1.52)	6.11 (0.32)	-2.77 (1.54)	-44.96	<.001
Responsiveness					
10. Information provided on when services will be performed	3.44 (1.56)	2.89 (0.58)	0.55 (1.67)	8.20	<.001
11. Provision of prompt service	3.35 (1.55)	3.13 (0.45)	0.21 (1.63)	3.29	.001
12. Staff are always willing to help	3.38 (1.53)	2.10 (0.41)	1.28 (1.60)	19.90	<.001
13. Accessibility of staff when needed	3.52 (1.55)	4.21 (0.56)	-0.68 (1.64)	-10.43	<.001
Assurance					
14. Patients/Users trust staff	3.68 (1.56)	6.13 (0.33)	-2.44 (1.60)	-38.02	<.001
15. Patients/Users feel safe with staff	3.70 (1.54)	6.13 (0.33)	-2.43 (1.58)	-38.41	<.001
16. Staff politeness and courtesy	3.67 (1.56)	6.13 (0.33)	-2.46 (1.61)	-38.24	<.001
17. Administration's support of staff's functions	3.73 (1.54)	5.99 (0.48)	-2.26 (1.61)	-34.92	<.001
Empathy					
18. Giving individual attention to each patient/user	3.69 (1.55)	2.99 (0.511)	0.70 (1.65)	10.59	<.001
19. Staff give personal attention to patients/users	2.80 (1.56)	2.95 (0.53)	-0.14 (1.65)	-2.20	.028
20. Understanding of the specific needs of patients/users	3.26 (1.62)	2.24 (0.57)	1.02 (1.72)	14.73	<.001
21. Staff have patient/user's best interests at heart	3.35 (1.61)	2.54 (0.89)	0.81 (1.84)	11.03	<.001
22. Operating hours appropriate to all	3.23 (1.62)	5.51 (1.23)	-2.28 (2.03)	-28.11	<.001

SD: Standard Deviation.

Discussion

Morocco has a healthcare system functions with a hierarchical framework, starting with primary healthcare facilities at the first level. These facilities include both urban and rural CHC and local hospitals. They offer preventive, promotional, and outpatient curative care²⁵. Additionally, ensuring high-quality care and services has always been a fundamental aspect of national strategies. However, it has also presented a notable obstacle^{26,27}.

The study findings indicated that there was a negative gap between the perceptions and expectations of service quality for tangibles (-2.52), reliability (-2.48), and assurance (-2.40). This indicates that the participants had high expectations for these aspects. However, a meta-analysis has demonstrated that assurance and empathy had the most significant expectation variations²⁸. Nonetheless, other studies have shown that tangibles and reliability also exhibited negative gaps^{18,29}, with reliability having the most negative gap^{18,29,30}. In rural regions, primary care facilities in Morocco were occasionally unwelcoming¹, to the extent that patients did not feel safe³¹. Additionally, patients reported a need for more equipment and supplies^{31,32}. However, it is established that the quality of equipment does not have a significant impact on the evaluation of the service quality provided³³. On the other hand, the gap in reliability does have a significant impact on both the quality of service provided and patient satisfaction³⁰. Furthermore, the present

study showed that empathy (0.02) and responsiveness (0.34) had positive but near-zero gaps. This result did not corroborate with the results of other studies, as the gaps between these two dimensions were among the most negative^{18,34}. This suggests that healthcare service is also perceived in terms of the humane touch during care delivery³⁴. The gaps between perceptions and expectations regarding empathy have a significant impact on satisfaction rather than on the overall quality of the service provided³⁰. However, empathy is one of the most critical factors that predict patient centrality and empowerment³⁵. Regarding responsiveness, a study conducted in Morocco on the Quality Cycle showed that the overall performance in terms of responsiveness only reached 39%³⁶. Moreover, another study had shown that patients were referred from CHC for specialized consultation, while general practitioners could have provided follow-up care³⁷.

Again, the results showed that the quality gaps were negative for most items, except for items related to responsiveness (10, 11, and 12) and empathy (18, 20, and 21). This result did not corroborate with the results of other studies since all quality gaps related to the items were negative^{18,29}. The three most negative gaps were related, respectively, to tangibles, notably the adequacy of equipment (-2.927), and reliability, notably regarding service delivery at the first contact (-2.926), and service

delivery at the promised time (-2.847). In other studies, the three items with the most negative quality gaps were related to tangibles¹⁸, reliability, and responsiveness²⁹. In this study, the differences were statistically significant regarding all aspects of healthcare service quality.

Using the SERVQUAL model, healthcare professionals would better understand their patients' expectations while identifying gaps in service delivery and implementing corrective measures. This approach will improve the quality of services provided and ultimately increase patient satisfaction³⁸.

Strengths and limitations

This study is the first in Morocco to be focused on the assessment of the quality of primary care services. By comparing expectations with perceptions, the findings reveal critical areas for improvement, enabling decision-making based on evidence and better patient care. Nevertheless, this study had limitations. Firstly, the adoption of a cross-sectional research design. Indeed, cross-sectional studies are conducted at a single point in time. It would be potentially useful to conduct a longitudinal study to track the evolution of patients' and users' expectations and perceptions over time. Secondly, the results of the present study can be extrapolated to other developing countries like Morocco, but it would be challenging to make this extrapolation.

Conclusion

This study showed that tangibles, reliability, and assurance had, respectively, the most negative gaps. This suggests that there was difficulty in meeting patients' expectations regarding these dimensions since expectations were

excessive compared to perceptions. More effort should be made to enhance the physical workplace environments of primary healthcare professionals, invest in skill development, and implement a performance-based reward system. Additionally, there is a need to strengthen the safety of clinical practices through legal and regulatory measures. However, further research is needed to understand better the factors that predict the quality of primary care services at the national level.

Acknowledgments

The authors would like to sincerely thank Professor A. Parasuraman for his generous approval to utilize the SERVQUAL tool in our research. His pioneering work in service quality has been instrumental to our study, and the opportunity to employ the SERVQUAL tool has significantly enhanced the depth and breadth of our research.

Competing interests

The authors declare that they have no competing interests.

Funding

This study received no funding.

Author contribution statement

H. El Mouaddib designed the study, interpreted the data, and wrote the manuscript. M. Sebbani participated in the design, the statistical analysis, the interpretation, and in the revision of the manuscript. L. Adarmouch and M. Amine participated in the design, and in the revision of the manuscript. All authors had access to the data and a role in writing the manuscript. Furthermore, all authors have read and approved the final version of the manuscript.

References

1. Gruénais ME, Amine M, De Brouwere V. Les disparités dans l'accès aux soins au Maroc. Observatoire National du Développement Humain; 2011:246.. <http://dspace.itg.be/handle/10390/6939>
2. Kim SS, Kaplowitz S, Johnston MV. The Effects of Physician Empathy on Patient Satisfaction and Compliance. *Eval Health Prof.* 2004;27(3):237-251. doi:10.1177/0163278704267037
3. Gilson L. What Sort of Stewardship and Health System Management Is Needed to Tackle Health Inequity, and How Can It Be Developed and Sustained? Centre for Health Policy; 2007. Accessed October 21, 2022. <https://www.hrhresourcecenter.org/node/2176.html>
4. Chang JT, Hays RD, Shekelle PG, MacLean CH, Solomon DH, Reuben DB, Roth CP, Kamberg CJ, Adams J, Young RT, Wenger NS. Patients' global ratings of their health care are not associated with the technical quality of their care. *Ann Intern Med.* 2006 May 2;144(9):665-72. doi: 10.7326/0003-4819-144-9-20060520-00010. Erratum in: *Ann Intern Med.* 2006 Oct 17;145(8):635-6.
5. Das J, Sohnesen TP. Patient Satisfaction, Doctor Effort, And Interview Location: Evidence From Paraguay. The World Bank; 2006. doi:10.1596/1813-9450-4086
6. Hanefeld J, Powell-Jackson T, Balabanova D. Understanding and measuring quality of care: dealing with complexity. *Bull World Health Organ.* 2017;95(5):368-374. doi:10.2471/BLT.16.179309
7. Normand C, Iftekar MH, Rahman SA. Assessment of the Community Clinics: Effects on Service Delivery, Quality and Utilization of Services. Health Systems Development Programme; 2002.
8. Zouini M, Baali A, Cherkaoui M, Hilali MK, Vimard P. Morbidité maternelle et recours aux soins dans le Haut Atlas occidental au Maroc:

- l'exemple des vallées d'Azgour et d'Anougal (cercle d'Amizmiz). In : 2009. Accessed October 25, 2022. <https://hal.ird.fr/ird-00591846>
9. Babakus E, Mangold WG. Adapting the SERVQUAL scale to hospital services: an empirical investigation. *Health Serv Res.* 1992;26(6):767-86.
 10. Donabedian A. Evaluating the Quality of Medical Care. *Milbank Q.* 2005;83(4):691-729. doi:10.1111/j.1468-0009.2005.00397.x
 11. Grönroos C. A Service Quality Model and Its Marketing Implications. *Eur J Mark.* 1993;18:36-44. doi:10.1108/EUM000000004784
 12. Parasuraman A, Berry LL, Zeithaml VA. Refinement and reassessment of the SERVQUAL scale. *J Retail.* 1991;67(4):420-50.
 13. Ware JE, Hays RD. Methods for Measuring Patient Satisfaction with Specific Medical Encounters. *Med Care.* 1988;26(4):393-402. doi:10/dt3cz5
 14. Ware JE, Snyder MK. Dimensions of patient attitudes regarding doctors and medical care services. *Med Care.* 1975;13(8):669-682. doi:10.1097/00005650-197508000-00006
 15. Parasuraman A, Zeithaml VA, Berry LL. A Conceptual Model of Service Quality and Its Implications for Future Research. *J Mark.* 1985;49(4):41-50. doi:10.1177/002224298504900403
 16. Ladhari R. Alternative measures of service quality: a review. *Manag Serv Qual Int J.* 2008;18(1):65-86. doi:10.1108/09604520810842849
 17. Parasuraman A, Zeithaml VA, Berry LL. Servqual: A multiple-item scale for measuring consumer perceptions of service quality. *J Retail.* 1988;64(1):12.
 18. Pansiri J, Mmerek R. Using the Servqual Model to Evaluate the Impact of Public Service Reforms in the Provision of Primary Health Care in Botswana. *J Afr Bus.* 2010;11(2):219-234. doi:10.1080/15228916.2010.509005
 19. Purcărea VL, Gheorghe IR, Petrescu CM. The Assessment of Perceived Service Quality of Public Health Care Services in Romania Using the SERVQUAL Scale. *Procedia Econ Finance.* 2013;6:573-85. doi:10.1016/S2212-5671(13)00175-5
 20. Papanikolaou V, Zygiaris S. Service quality perceptions in primary health care centres in Greece. *Health Expect Int J Public Particip Health Care Health Policy.* 2014;17(2):197-207. doi:10.1111/j.1369-7625.2011.00747.x
 21. Amaravathi M, Raja M AS. Assessing Servqual in Primary Health Care Centres (PHC): With Special Reference to the City of Coimbatore. *Int J Pharm Sci Rev Res.* 2016;38(1):51-7.
 22. MSPS. Santé En Chiffres 2021. Ministère de la Santé et de la Protection Sociale; 2023. [https://www.sante.gov.ma/Documents/2023/03/Sante%20en%20chiffre%202021%20VF%20\(1\).pdf](https://www.sante.gov.ma/Documents/2023/03/Sante%20en%20chiffre%202021%20VF%20(1).pdf)
 23. Al-Daoar RMA, Munusamy S. Evaluating Nurses' Perspective towards Service Quality and Patient Satisfaction in Private Hospitals: An Empirical Study in Yemen. *Indian J Public Health Res Dev.* 2019;10(8):259. doi:10.5958/0976-5506.2019.01889.8
 24. Mauri A, Minazzi R, Muccio S. A Review of Literature on the Gaps Model on Service Quality: A 3-Decades Period: 1985-2013. *Int Bus Res.* 2013;6(12):p134. doi:10.5539/ibr.v6n12p134
 25. Semlali H, Rihani A, Boukhalfa C. Regulation of Private Primary Health Care in Morocco: A Country Assessment Report. Joint Learning Network for Universal Health Coverage, Bill & Melinda; 2018.
 26. Ministère de la Santé. Stratégie Nationale de Financement de La Santé.; 2021. https://www.sante.gov.ma/Documents/2021/rapport_SNFS%20VD%20avril%202021.pdf
 27. Ministère de la Santé, OMS. Stratégie Nationale Multisectorielle de Prévention et de Contrôle Des Maladies Non Transmissibles 2019-2029. Rabat, Maroc; 2019:44.
 28. Teshnizi SH, Aghamolaei T, Kahnouji K, Teshnizi SMH, Ghani J. Assessing quality of health services with the SERVQUAL model in Iran. A systematic review and meta-analysis. *Int J Qual Health Care.* 2018;30(2):82-89. doi:10.1093/intqhc/mzx200
 29. Mohammadi A, Mohammadi J. Evaluating quality of health services in health centres of Zanjan district of Iran. *Indian J Public Health.* 2012;56(4):308. doi:10.4103/0019-557X.106422
 30. Perera S, Dabney BW. Case management service quality and patient-centered care. *J Health Organ Manag.* 2020;ahead-of-print(ahead-of-print). doi:10.1108/JHOM-12-2019-0347
 31. Baayd J, Simonsen SE, Stanford JB, Willis SK, Frost CJ. Identifying barriers to accessing skilled maternal health care in rural Morocco. *Afr J Reprod Health.* 2021;25(1):20-8.
 32. Hassoune S, Badri S, Nani S, Belhadi L, Maaroufi A. Les barrières à une bonne prise en charge des diabétiques dans les structures de première ligne de la province de Khouribga (MAROC). *Pan Afr Med J.* 2012;13. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3542773/>
 33. Zarei E, Daneshkohan A, Khabiri R, Arab M. The Effect of Hospital Service Quality on Patient's Trust. *Iran Red Crescent Med J.* 2015;17(1):e17505. doi:10.5812/ircmj.17505
 34. Tripathi SN, Siddiqui MH. Assessing the quality of healthcare services: A SERVQUAL approach. *Int J Healthc Manag.* Published online April 29, 2018. Accessed October 7, 2022. <https://www.tandfonline.com/doi/abs/10.1080/20479700.2018.1469212>
 35. Birhanu Z, Woldie MK, Assefa T, Morankar S. Determinants of patient enablement at primary health care centres in central Ethiopia: a cross-sectional study. *Afr J Prim Health Care Fam Med.* 2011;3(1):27-34. doi:10/dswkqz
 36. Zaadoud B, Chbab Y, El Ghaza S, Chaouch A. The Performance Measures of Primary Health Care Quality: Experiences of Morocco Primary Health Centers during the 'Quality Contest' in 2010-2014 (41 Centers Audited). *Eur Sci J ESJ.* 2017;13(9):386-386. doi:10.19044/esj.2017.v13n9p386
 37. Utz B, Assarag B, Essolbi A, Barkat A, Benkaddour YA, De Brouwere V. Diagnosis a posteriori? Assessing gestational diabetes screening and management in Morocco. *Glob Health Action.* 2016;9:10.3402/gha.v9.32511. doi:10.3402/gha.v9.32511
 38. Jonkisz A, Kamiej P, Krasowska D. SERVQUAL Method as an "Old New" Tool for Improving the Quality of Medical Services: A Literature Review. *Int J Environ Res Public Health.* 2021;18(20):10758. doi:10.3390/ijerph182010758